Illinois' Incomplete Telecom Report Card

Remnant telecom regulation threatens jobs and opportunity in Illinois

By Hance Haney and George Gilder | March 2010

FORWARD

By Illinois Technology Partnership (ITP), Illinois State Black Chamber of Commerce and Illinois Hispanic Chamber of Commerce

A Rapidly Evolving Technology Landscape

The acceleration and adoption of new technologies has been exponential over the past 10 years. Advancements in mobile and broadband have ushered in a new era of communication-based technologies.

Gone are the days of clunky car phones. Today, people read the news, upload pictures, edit documents, send out a Tweet, and watch the latest YouTube video all over their smart phone. The Internet has become a central hub for communication and information which has facilitated global e-commerce and has fostered a growing, digital marketplace.

According to Bret Swanson of Entropy Economics, a typical cable modem is 10 times faster than a decade ago and bandwidth growth per capita has increased 500 fold since 2000. Broadband adoption continues to increase, and 99 percent of U.S. workers are connecting to the Web by way of high-speed Internet.

For many people in Illinois, broadband access is the difference between a high-wage, high-skilled job and unemployment.

Policy Must Keep Pace

Even though the technology landscape has changed significantly, our state's telecom policies have remained the same since 1985. The rationale behind these outdated policies is nearly impossible to justify. Modern technology policy is not the enemy of common sense consumer protection.

While traditional landline providers are forced to fulfill outdated and unnecessary regulatory requirements that new providers do not, Illinois is missing out on investment in broadband infrastructure that supports new growth and innovation.

By failing to update the state's telecommunications laws, we run the risk of losing jobs and companies to states like Michigan and Indiana, where policies have been updated to encourage new technologies that give companies a competitive edge and consumers more choice.

Modern Policy Leads to Investment and Job Creation

Overhauling Illinois' telecommunications laws will lead to increased private investment in broadband infrastructure, which will be quickly realized and most profoundly felt in underserved and rural communities.

An Illinois-based Web entrepreneur recently said he is looking to grow his company, and in-home call centers in rural Illinois would be an option. However, the company would like to use Voice over IP telephone lines, a less expensive alternative to landlines. A lack of broadband penetration forces the company to limit who they can hire based on whether or not potential

employees have broadband access, and as a result all calls are outsourced to Utah-based call centers.

In areas that have broadband access, people are communicating over various, different platforms with new services like e-mail, Web conferencing, instant chats and video chats, which can be accessed over wireless, satellite and 3G networks that never existed 25 years ago. Moreover, in these areas wire line utility is just one of the many options for telephone service. Aside from traditional landline providers, consumers are also turning to new, lower-cost, technologies such wireless, mobile Internet and Voice over IP.

As a result of advancements in these new technologies, more people are able to access information over the Internet. The study points out, Hispanic adults and non-Hispanic black adults are more likely than white adults to be living in households that are wireless only and mobile wireless adoption is highest among blacks, helping to close the digital divide stemming from the high-cost of home Internet.

Illinois' current policies do not consider many of these new types of providers or services that more people are using today and that have changed the competitive landscape of the telecom industry without any regulation. The context of the industry has entirely changed, and Illinois' telecom laws have failed to do the same.

In the midst of one of the worst economic crises in our state's history, we are at a critical juncture. We can choose to move ahead with the globally competitive marketplace or stand still and let the world move forward without us.

This study was sponsored by the Illinois Technology Partnership (ITP), the Illinois State Black Chamber of Commerce and the Illinois Hispanic Chamber of Commerce and paid for by members of ITP's Advisory Board.

SUMMARY

In 1985, the Illinois General Assembly declared that "competition should be pursued as a substitute for regulation," delivering new technologies, improved service quality, choice among telecommunications providers and ultimately lower prices for consumers.[1]

The goal of the 1985 act, which was to open the market to competition, has been achieved, but not the task of ensuring that consumers will reap the full benefits of competition – which requires eliminating legacy regulation that is no longer necessary to protect consumers, harms competition and that limits the deployment of new technologies by advantaging some providers and disadvantaging others.

By simple reforms of outdated laws, Illinois can ignite a spiral of innovation and revival based on new technologies and services.

Gone is the traditional rationale for utility regulation – *i.e.,* that fixed landline telephone service is a natural monopoly. Between cable and wireline telephone companies, competition pushed down the rates for bundles of Internet, phone and TV service by up to 20 percent in 2008, to as low as $80 per month, according to *Consumer Reports.*

Continued rulemaking by state public utility commissions is not only unnecessary but, by distorting competition, harms consumers and limits deployment of new technologies. Even when pursued in the name of "competition," legacy regulation restricts service strategy flexibility and creativity needed for real competition in the Internet age.

In Illinois remain several harmful vestiges of legacy regulation, including:

- Pricing regulation, including hidden cross-subsidies, that makes it unprofitable to serve many, if not most consumers. Pricing regulation cannot be maintained in a competitive market, where service providers can choose to serve profitable customers and ignore everyone else.

- Filing requirements that give rivals detailed information about a competitor's new or improved services or products.

- Utility commission jurisdiction to act on consumer complaints that can lead to inconsistent enforcement with anticompetitive consequences.

- Service quality regulation applied only to legacy technology that results in unequal regulatory burden and skews incentives for investment.

- Obligations to serve, usually referred to as provider-of-last-resort, which impose costs on some providers but not others and are anticompetitive wherever consumers can choose between multiple providers.

Illinois' neighbors are taking important steps to update the regulatory climate. Indiana, Michigan and Missouri have updated their telecom statutes, and Ohio and Wisconsin are in the process of updating theirs.

Meanwhile, Illinois' telecommunications providers remain subject to unnecessary and anticompetitive regulation which depresses industry valuations and thus investment.

This is a moment of truth for Illinois. Broadband is not yet ubiquitous, particularly in disadvantaged communities and remote areas. Yet every Illinois resident should have access to broadband.

Broadband offers new opportunities to get a job or start a business. It is most valuable where other

opportunities for wealth creation are least available, such as in disadvantaged communities and rural areas.

The state can open up new technological opportunities and economic efficiencies that promise a direct private market economic stimulus of at least $4.6 billion over five years in the form of lower prices for voice services, according to one estimate. According to a report by Connected Nation, Illinois would also experience an additional $6.2 billion in economic impact annually from increased broadband availability and use – including an estimated 105,622 jobs created or saved per year throughout the state's economy.

The jobs created or saved are not only in the telecommunications equipment and services, but also in manufacturing and service industries (especially finance, education and health care).

Telephone companies, cable operators, wireless providers and others are all competing to be #1 in broadband, and each firm is anxious to invest whatever it takes. But first investors must provide the funding. They will decide which, if any, firms can buy the necessary equipment and employ the highly-skilled people who can make it all work.

From a state perspective, regulation is the most critical factor affecting private investment in broadband. By removing the statewide cobwebs of regulations that afflict telecom, Illinois can eliminate the possibility that investment will flow to another state with a lower risk profile.

COMPETITION PROTECTS CONSUMERS

Today, incumbent telecommunications providers are facing wide-ranging competitive pressure from Voice over Internet Protocol (VoIP) providers, from cable operators, from wireless providers and from other certificated wireline providers.

The local providers' share of some markets has dropped to a point near 50 percent or less. The Illinois Commerce Commission acknowledges that competitive local exchange carriers (CLECs) likely provided at least 27 percent of "plain old telephone service" (POTS) in Illinois in 2008.[2] This doesn't even count wireless and Voice over Internet Protocol (VoIP) offerings, which are popular substitutes for POTS.[3] As discussed in further detail below, at least one-third of consumers are likely using wireless or VoIP service as substitutes for POTS.

Professor Alfred E. Kahn, a former chairman of the New York Public Service Commission and top official in the Carter administration, says:

> *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 on-line medical diagnoses and gaming.*[4]

Cable phone service

Cable phone services – primarily utilizing VoIP technology – was available to approximately 84 percent of U.S. cable-passed households nationwide at the end

of 2008, according to research cited by economist Jeff Eisenach.[5] He further notes that cable telephony was available in rural study areas which account for 87 percent of the rural population.[6]

Several of the top cable companies in Illinois report higher national average percentages of homes passed within their service territories, and the second largest provider of landline voice service in Illinois is a cable company.

Charter Communications – Charter reports that 87.3 percent of the homes passed by its video cable services are also passed by its telephone services.[7]

Comcast – Digital phone services are available to approximately 92 percent of homes in areas served by Comcast.[8] The company recently became the third largest phone services provider in the U.S.[9] Comcast reports it has already captured 14 percent of the phone market where it competes, and believes it can capture 20-25% of the residential market over time.[10]

Mediacom – Phone services are now available across 92 percent of Mediacom's 2.8 million homes nationwide, and beginning in March 2009, the company launched across much of its footprint a multi-line phone product as part of its suite of business services.[11]

Competitive local exchange carriers – a category dominated by cable operators providing competitive voice services, but also including other VoIP and wireline providers – are serving customers in 88 percent of Illinois' zip codes, according to the FCC.[12] Nationwide, there was at least one CLEC serving customers in 82 percent of zip codes, and about 97 percent of households resided in those zip codes.[13] The FCC recently required providers to report service availability in individual Census Tracts as opposed to zip codes, and this data will be available soon.[14]

Meanwhile, competition has pushed down the rates for bundles of Internet, phone and TV service by up to 20 percent in 2008, to as low as $80 per month, according to *Consumer Reports.*[15] The magazine also recently reported that, shopping for Internet, home phone, and TV service is increasingly a "buyer's market."[16]

Although VoIP at one time was not comparable to wireline service in terms of sound quality, this is no longer the case. "It's easy to take for granted the fact that Internet calls are now as clear as those on landlines," according to a *New York Times* columnist.[17]

One study estimates that the market potential for cable voice service over the next 15 years will be 38.8 million residential and 1.6 million small business subscribers.[18]

Consumers reported spending $39.80 per month on average for cable VoIP service, according to a leading survey, versus an average of $51.50 per month on telephone service.[19] The study projects that over a five year period (2007-2012), Illinois consumers will save over $714 million in the aggregate based on an estimated cost savings of $11.70 per residential subscription per month[20] and over $34 million in savings to small businesses over the same period ($19.70 per customer per month).[21]

The study notes that these benefits are dwarfed by the indirect benefits from the competitive pressure placed on incumbent traditional phone providers by competitors. Competition forces the incumbents to cut their own prices by an estimated $12 per month on average to avoid losing customers, according to the study.[22] The indirect savings for the residential customers of the incumbent traditional phone providers in Illinois is almost $3 billion over 5 years, plus $700,000 for small businesses.

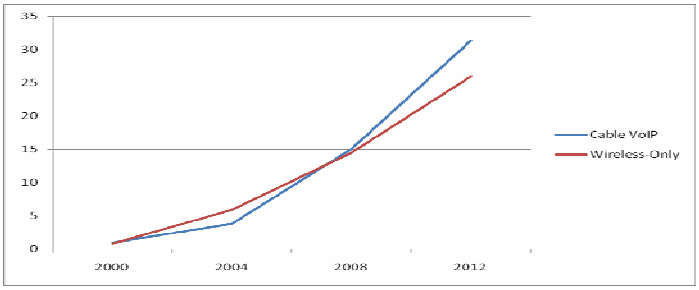
In Illinois, where one cable VoIP provider is now the state's second largest telephone company – and is not

subject to legacy telephone regulation – the projected savings from competition in fixed-line voice services as a result of cable VoIP equal in excess of $4.6 billion over five years.[23]

If legacy telephone regulations are not reformed, these immediate projected savings, not to mention additional future savings beyond the five year horizon, could be at risk. Continued regulation jeopardizes competition which leads to benefits and savings for consumers by creating artificial competitive advantages and disadvantages for providers.

Rapid Growth Projected in Competitive Services

(Million Households, 2012 est.)



Sources: NCTA, FCC, CDC, SNL Kagan

Wireless

Approximately 99.6 percent of the total U.S. population – and approximately 98.5 percent of the U.S. population living in rural census blocks – have one or more different operators offering mobile telephone service in the census blocks in which they live, according to the FCC.[24]

More than 95 percent of the U.S. population lives in census blocks with at least three mobile telephone operators competing to offer service, and more than 60 percent of the population lives in census blocks with at least five competing operators.[25]

There were 255.3 million cellphones and only 154.6 million landline phones in service in mid-2008.[26]

A growing number of cellphone customers are "wireless-only" or "mostly-wireless." Over one-third of the nation's households fell into one of these two categories in the first half of 2009, according to a study conducted by the Centers for Disease Control of the U.S. Department of Health and Human Services.[27]

More than one of every five Midwest homes (21.9%) had only wireless telephones.[28] Data from 2007 showed that wireless substitution was higher in Illinois compared to Indiana, Michigan, Missouri, Ohio and Wisconsin.[29]

In addition, one of every seven American homes (14.7%) received all or almost all calls on wireless telephones, despite having a landline telephone in the home.[30]

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, which would leave local telecommunications providers collectively with a 51 percent market share nationally.[31]

The *Economist* recently predicted that if consumers discontinue landline telephone service at the current rate, "the last cord will be cut sometime in 2025."[32] Meanwhile, the subsidy required for landline service to remote locations and poor customers will have to rise as more of the customers who generate those subsidies discontinue their own landline service, notes the article.[33]

> *The danger, says [one analyst], is that regulators will introduce new taxes on wireless and broadband services. Revenues from new services would then be used to keep an obsolete infrastructure alive—a recipe for lower growth.*

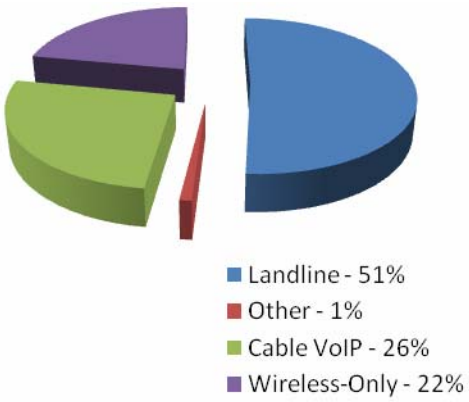
> *At that point, he says, the "wireline problem" really will be everyone's problem.*[34]

Verizon is giving up on the landline business, according to the *New York Times*.[35] Verizon is aiming to convert most of its landline operation to an unregulated fiber-based network capable of leveraging the decentralized structure of the unregulated Internet to cut costs sharply…[36]

There is no basis for claiming that incumbent landline providers are dominant entities requiring close government scrutiny. However, we predict a vocal few will continue to demand traditional utility regulation because they have a vested interest in the status quo.

Market Shares for Voice Services

(2012 est.)



Sources: FCC, SNL Kagan

The widespread availability of competitive alternatives to landline phone service limit the ability of incumbent telecommunications providers to dictate rates or terms or otherwise injure consumers. Most of their customers now have a choice of providers. Comprehensive regulation will actually do more harm than good by limiting the ability of incumbent telecommunications providers to improve their products and services and to adjust their pricing in response to competition.

Regulatory reform of landline phone service is lagging far behind wireless[37] and cable,[38] both of which were largely deregulated during the Clinton administration when they faced far less actual competition than the telecommunications providers have now.

Even in the absence of market share losses, preemption of state regulation of wireless services in 1993 came with the auctioning of additional spectrum because Congress reasonably assumed competitors would materialize. The average cost per minute of cell phone use has fallen from 47 cents in 1994 to 6 cents in 2007.[39]

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 customers at a rapid rate.[40] Video service offerings expanded as the result of a $145 billion investment by the cable industry between 1996 and 2009 to build out a two-way interactive network with fiber optic technology.[41] This investment was a direct result of regulatory reform and enabled the cable industry to become the leading provider of high-speed broadband service and pioneer combined full-scale broadband video, Internet and digital phone service packages.[42]

NEEDED REFORMS

1. ***Prevent Direct Regulation of Broadband, Wireless and VoIP***

There is no express statutory exemption of broadband, wireless or VoIP services from state commission jurisdiction in Illinois.[43] This should be changed.

There is no reason for a utility commission to possess explicit or implied jurisdiction to intervene in a

competitive marketplace, because competition has proven to work. To the extent that competitive services are not expressly exempted from utility regulation, a state commission is a target for commercial rivals seeking protection or a regulatory advantage over their competitors.

For example, there is little if anything that regulation can do to address the challenges of ensuring ubiquitous broadband, i.e., access to broadband capability, cost and, in some cases, insufficient awareness of how to use it or of its potential benefits.[44]

Traditionally, regulators have ordered firms to provide service in exchange for a guarantee of profitability achieved through legal barriers to competition, and/or regulators have established cross-subsidies. Dismantling obsolete regulation and preventing waste, fraud and abuse in subsidy programs is difficult.

As previously noted, cross subsidies in the telephone business have outlived their usefulness and there is a now-urgent need for lower intrastate access charges, pricing flexibility and detariffing.

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.[45] Reform of the subsidy mechanisms has been seriously considered on many occasions but has proven to be politically problematic every time.

State economic development and education departments can play a valuable role promoting broadband adoption.

The goal of ubiquitous broadband deployment does not provide a justification for the ICC to retain the ability to regulate competitive communications 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.

2. Consolidate 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.

Utility commission jurisdiction for consumer issues is redundant since the Attorney General's Consumer Protection Division already protects Illinois consumers and businesses against fraud, deception, and unfair business practices. It can also lead to inconsistent consumer protection enforcement according to the type of service or provider, since VoIP and wireless services are unregulated. This could have anticompetitive implications.

ICC jurisdiction to act on consumer complaints should be eliminated and handled solely within the Attorney General's Office.

3. Eliminate Service Quality Regulation

The ICC enforces service quality rules on copper-based, circuit switched phone service provided by incumbent local exchange carriers, but not on their competitors. These rules are hopelessly outdated and unnecessary as

a result of the widespread competition that exists today in the age of fiber optics, cellphones and the Internet.

Moreover, service quality regulation is largely ineffectual. In 2000, high numbers of consumers throughout the Midwest complained of lengthy delays for new phone service or for repairs to existing service from Ameritech, the parent of Illinois Bell. One attorney speculated that Ameritech was pursuing a strategy of making itself an attractive takeover target by deferring investment in the network so as to conserve cash in order to improve its balance sheet.[46]

Service quality regulation by the public utility commissions throughout Ameritech's Midwest service territory failed to prevent the deteriorating service quality. FCC "pro-competition" policies, which – among other things – deregulated Ameritech's competitors but not Ameritech itself, undoubtedly contributed to underinvestment by Ameritech.

Service quality regulation is simply unnecessary in a competitive market where all providers are subject to minimum regulatory burdens that are equally applied. Service quality regulation applied to some providers but not others is anticompetitive and harmful to consumers.

4. ***Eliminate Price Regulation***

Illinois still caps rates for basic local exchange services for residential customers outside the Chicago Local Access & Transport Area (LATA) based on the erroneous assumption that these services are "noncompetitive."[47]

Requirements to offer similar terms to all customers prevents incumbents from offering volume and term discounts or other customized offerings which are necessary to retain valuable customers who contribute to the cost of maintaining service for everyone else.

Pricing inflexibility makes it highly profitable to serve customers in low cost areas and unprofitable to serve customers in high cost areas. As a result, customers in high cost areas have no competitive choices, and customers in low cost areas pay artificially high prices due to a pricing umbrella which permits competitors to charge unreasonably high prices because the incumbent is helpless to cut its prices selectively.

Allowing the market to set prices would spread the benefits of competition in both urban and rural areas. The alternative is to deny high-cost consumers of both competitive choices and ultimately the heavily subsidized service they need, as low-cost customers take advantage of competitive offerings.

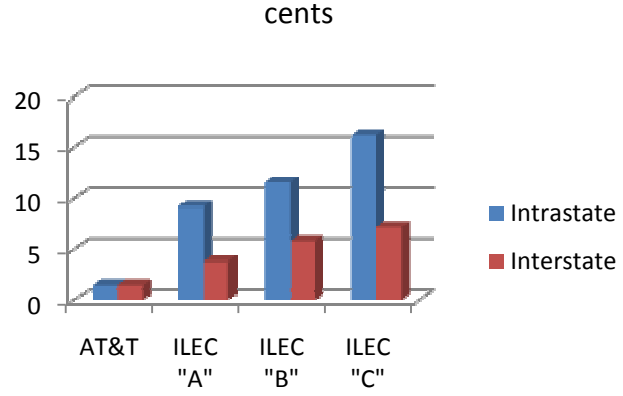
5. ***Require Parity Between Access Charges for Intrastate and Interstate Services***

Access charges are paid by long-distance and wireless providers to local phone providers when calls are exchanged between the providers. Access charges historically were set far above cost to generate significant subsidies for local service.

Subsidies of this nature cannot be maintained in a competitive market where rivals can choose to serve profitable customers and ignore everyone else. The system is already breaking down, since VoIP and wireless calls are assessed differently than traditional phone calls and this has resulted in a lower cost and thus a competitive advantage for those services.[48]

In Illinois, AT&T charged 1.48 cents per minute in 2008 both for interstate access and for intrastate access.[49] But intrastate access charges can be much higher for other carriers.[50] Three randomly selected rural providers were each charging intrastate access rates which were twice as high as their interstate access charges.

Illinois Intrastate v. Interstate access charges



Sources: FCC, filed tariffs

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

It is not possible to preserve the status quo, nor is it desirable to postpone reform. If incumbent telecommunications providers are forced to charge or pay inflated prices, they will lose customers to lower-priced VoIP and wireless 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.

6. Eliminate Filing Requirements

Telecom providers in Illinois must file tariffs (or schedules) setting forth the rates and terms for the services they provide.[51] Tariffs for "noncompetitive" services (a term which no longer applies to the telecommunications industry) must be filed on 45 days notice, unless the commission grants a petition for less.[52] For competitive services, tariffs take effect immediately.[53]

The requirement to file tariffs stating the rates, terms and conditions ensures that rivals receive detailed information about a competitor's new or improved products and services. This reduces the incentive to consistently offer a superior value proposition as the best defense against competitive surprises which may cause a loss in sales.

The FCC concluded during the Clinton administration that it would be pro-competitive to neither require *nor allow* long-distance carriers to file tariffs because it would increase incentives for innovation, make it easier to offer discounts and customized service arrangements as a way of retaining lucrative customers – who contribute to the joint and common costs of maintaining the network for the benefit of all consumers – and reduce the possibility of tacit coordination in price-setting.[54]

Illinois should eliminate mandatory and permissive tariff filing, which harms consumers by inhibiting rapid competitive responses needed to constantly improve the value proposition of products and services.

7. Reform Obligations to Serve

Illinois requires telecom providers to provide basic phone service to anyone upon reasonable request.[55]

Traditionally, the *quid pro quo* for a monopoly franchise was the obligation to serve anybody upon reasonable request. The federal Telecommunications Act of 1996 eliminated the monopoly franchise, but the obligation to provide basic service remains.

An obligation to serve imposes costs on some providers that don't have to be borne by others. It is anticompetitive and should be eliminated wherever the

market is competitive and consumers can choose between multiple providers.

Otherwise, providers should be allowed to satisfy their provider of last resort obligation by providing service through the use of any technology or service arrangement if, for example, wireless or VoIP can be employed more efficiently than traditional phone service.

INVESTMENT LINKED TO REGULATORY REFORM

Broadband investment is vital to promote equal opportunity, create jobs in an uncertain economy as well as improve education and health care.

The investment needed to make ubiquitous broadband at the fastest speeds a reality is, $350 billion according to one estimate and very risky. Historically, monopoly franchises ensured that investments in telephone and cable networks could be recovered. Today, with vibrant competition and rapidly evolving technology, there is no guarantee that investments in broadband will be profitable.

The investments necessary to build broadband infrastructure are "inherently risky by their very nature," according to Debra J. Aron and Robert W. Crandall, who caution that "[p]rojects with inherently significant risk, as these are, would be especially sensitive to regulatory risk."[56]

Legacy regulation creates artificial competitive advantages and disadvantages, because communications providers are subject to different regulation depending on the technology they use and their history. Unequal regulation restricts service strategy flexibility and creativity needed to compete in the Internet era.

Regulatory uncertainty – that is, the risk that even well-intentioned regulation can have unintended consequences – is another obstacle to private investment in broadband. According to Robert W. Crandall, Robert E. Litan and William Lehr,

> *The virtuous cycle of capacity investments leading to new services and competition which in turn helps drive increased demand and traffic which in turn leads to still more investment in facilities risks being derailed if the firms investing in such infrastructure cannot reasonably expect to recover their economic costs, including earning a fair, risk-adjusted return on investment.*[57]

"[T]he expansion of broadband is [] first and foremost [a] matter of investment by public companies," explained Commissioner Robert Steele of the 2nd District of Cook County at a recent workshop discussing the National Broadband Plan sponsored by the FCC. "Over the past 2 years, the nation's nearly 1,400 facilities-based broadband service providers invested approximately $120 billion in modern communication networks. Government practice and policy should work in conjunction with the private sector to build upon the efforts to bridge our digital divide."[58]

Larry Cohen of the Communications Workers of America has also said, "We depend on private capital to invest in next-generation wireless and wireless networks, and create and maintain jobs in the industry."[59] Citing the $63 billion in investments made by the top network providers in 2008, Cohen noted in reaction to proposed new regulation at the federal level that it is crucial that policymakers "support the right mix of incentives to sustain and enhance these investments that are so critical to America's future."

Regulatory reform is necessary for broadband providers to maintain stock valuations necessary to attract sufficient investment capital for broadband expansion.

Investors funded wireless expansion by the incumbent telecommunications providers on the strength of their landline business. Now telecommunications providers 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, rather than be forced to subsidize local services.

CREATE AND MAINTAIN JOBS

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

Experts foresee the need for continuing massive investment by network operators. As noted earlier, it could cost more than $350 billion to achieve universal access to the fastest broadband speeds (100+ megabits per second), according to the staff of the Federal Communications Commission.[60]

Every $5 billion invested in broadband infrastructure would directly create 100,000 new jobs in the telecommunications and information technology industries alone in the year in which the spending occurs, according to President Larry Cohen of the Communications Workers of America.[61]

One analysis found that $10 billion of investment in one year in broadband networks will support an estimated 498,000 new or retained jobs throughout the entire U.S. economy for a year.[62] These include direct jobs, such as technicians to deploy broadband cable and equipment; indirect jobs created to supply the materials; and induced jobs, such as jobs in restaurants and retail stores created as the newly employed or retained workers spend their paychecks.

A study by the Brookings Institution found that 300,000 private non-farm jobs are created throughout the entire economy for every one percentage point increase in broadband penetration.[63] The authors conclude that employment in both manufacturing and services industries (especially finance, education and health care) is positively related to broadband penetration.

In Illinois, the Brookings study projects that a 1-3 percent increase in broadband penetration would create 13,000-39,000 private, non-farm jobs.[64]

Another study by Connected Nation estimates that just a 7 percent increase in broadband adoption – similar to the higher household broadband adoption in Kentucky versus national growth that was achieved by addressing local supply and demand issues – would create or save 105,622 new jobs per year in Illinois.[65]

The Connected Nation Study also projects the following additional benefits assuming a reasonably-achievable 7 percent increase in broadband in Illinois[66]:

- $4,321,003,997 in direct annual income growth
- $28,425,487 in average annual health care costs saved
- 161,036,091 in average annual hours saved
- $1,583,789,952 in annual value of hours saved
- $273,919,566 in average annual mileage costs saved
- 138,748,26 in average annual lbs. of CO2 emissions cut

The total economic impact of accelerating broadband access and use in Illinois is approximately $6.2 billion, according Connected Nation.[67]

Regulatory reform alone can make most if not all of these benefits possible by stimulating private investment and creating competitive pressure for broadband providers to upgrade their services, reduce prices or both. Conversely, the absence of regulatory reform will make it harder to achieve these benefits through other means, such as public subsidies.

PROMOTE ECONOMIC DEVELOPMENT AND NEW EFFICIENCIES

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.[68] Wage and salary jobs, as well as the number of proprietors, grew faster in counties with early broadband Internet access.[69]

Predicted savings in health care are major and mounting as an effect of broadband diagnosis, monitoring and other services.[70] Broadband can be used in a variety of new ways, including the monitoring of elderly, infirm, or individuals with disabilities at their current residences or less expensive community health care centers, and the delivery of medical care directly through "telemedicine," or two-way video communication between patients and health care providers. These benefits are estimated to accumulate to at least $927 billion over 25 years (measured in 2005 dollars), which is equivalent to half of what the United States currently spends annually for medical care for all its citizens ($1.8 trillion).[71]

Estimates of the net consumer benefits from home broadband are on the order of $32 billion per year.[72]

Further deployment of broadband infrastructure is needed to ensure that all people of the United States have access to broadband capability. According to FCC Chairman Julius Genachowski, roughly 14 million Americans and many small businesses do not have access to broadband.[73] He also estimates that more than 100 million Americans do not have broadband either because they cannot afford, do not know how to use it or are not aware of its potential benefits.[74]

EMPOWER UNDERSERVED COMMUNITIES

A report by the National Telecommunications and Information Administration (NTIA) and the United States Census Bureau points out that broadband use at home varies significantly across demographic groups.

> *Persons with high incomes, those who are younger, Asians and Whites, the more highly-educated, married couples, and the employed tend to have higher rates of broadband use at home. Conversely, persons with low incomes, seniors, minorities, the less-educated, non-family households, and the non-employed tend to lag behind other groups in home broadband use.*[75]

According to the NTIA study, almost 30 percent cited the most important reason for no broadband access at home as either "too expensive" (26.3%) or "not available" (3.6%).[76] These also happen to be the easiest problems for broadband providers to solve with additional direct investment in broadband connectivity.

A recent Pew Internet survey also finds demographic variances in broadband adoption.[77] It shows that 63 percent of white households have broadband, compared to 52 percent black and 47 percent Hispanic (English- and Spanish-speaking) households.[78] Meanwhile, it also reveals that those who have accessed the Internet wirelessly via their laptop or handheld device were 62 percent Hispanic (English- and Spanish-speaking) 59 percent black (non-Hispanic) and 52 percent white (non-Hispanic).[79]

Demographics of Home Broadband Users

White, Non-Hispanic	63%
Black, Non-Hispanic	52%
Hispanic (English- and Spanish-speaking	47%

The foregoing research tracks the findings of the National Center for Health Statistics concerning wireless substitution. It found that adults living in poverty (33.0%) and adults living near poverty (26.5%) were more likely than higher income adults (18.9%) to be living in households with only wireless telephones.[80] And Hispanic adults (28.2%) and non-Hispanic black adults (21.3%) were more likely than non-Hispanic white adults (19.7%) to be living in households with only wireless telephones.[81]

The popularity of mobile Internet access among minority groups is helping to "close a looming digital divide stemming from the high cost of in-home Internet access, which can be prohibitive for some," according to a *New York Times* report.[82]

Another recent Pew survey found that from 2006 to 2008, internet use among Latino adults rose by 10 percentage points, from 54% to 64%. In comparison, the rates for whites rose four percentage points, and the rates for blacks rose only two percentage points during that time period. Though Latinos continue to lag behind whites, the gap in Internet use has shrunk considerably.[83]

Access to broadband is becoming increasingly important for employment, education, news, health care and consumer welfare purposes, as FCC Commissioner Mignon Clyburn recently noted.

> *In today's fast-changing world, broadband is not a luxury; but rather, it is a necessity, a must-have. Need a job? You'll have to go on-line for that. Want to manage your energy consumption at home? You'll have to go on-line for that. Applying for government benefits? Before long, you will have to go exclusively on-line for that too.*
>
> * * * *
>
> *Broadband's key promise for people of color in particular is economic empowerment. For the first time, there are no immediate and overwhelming barriers to entry for upstart businessmen and women or "cyberpreneurs." Broadband has opened avenues never dreamed possible by those in challenged communities.*[84]

"We firmly believe that ubiquitous broadband access, adoption, and use, stand to be great equalizers in our society," notes a joint policy statement of the National Asian-Pacific American Caucus of State Legislators, National Black Caucus of State Legislators, National Caucus of Native American State Legislators and the National Hispanic Caucus of State Legislators. "As such, we must ensure that Internet adoption and use via a broadband connection becomes engrained as a social, cultural norm in our communities."[85]

Every Illinois resident should have access to broadband. Telephone companies, cable operators, wireless providers and others are all anxious to invest in broadband if investors will provide the funding. Investors will decide whether firms can buy the necessary equipment and employ the highly-skilled people who can make it all work.

Of all the calculations that will affect private investment, regulation is the most critical from a state perspective. If legacy telephone regulation is not reformed and the possibility that other market participants could face similar regulation is not eliminated, the private investment needed to make

broadband a practical reality for every household is at risk.

ILLINOIS' NEIGHBORS

Other states have made significant strides reforming outdated telecom regulation in the past year.

Indiana

Indiana legislators passed the most comprehensive set of regulatory reforms in the country and Gov. Mitch Daniels signed the bill into law in 2006. 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. According to one of the bill's co-authors, Rep. Eric Koch,

> *We have seen expansion of rural broadband, with AT&T, Verizon, and other providers expanding high-speed Internet access to over 100 additional rural communities. More than 2,150 new jobs have been created by Comcast, AT&T, and Verizon alone. Nearly $1.5 billion has been invested in new telecommunication infrastructure by AT&T (over $1 billion), Verizon ($300 million), Embarq ($18 million) and smaller telephone companies (over $150 million). Robust new competition has resulted in more than 35 new state video franchises being issued to seven cable companies and 10 traditional telephone companies.*[86]

Michigan

Michigan updated its telecommunications laws in 2005.[87] All services except primary basic residential service have been detariffed. There is pricing flexibility for all but primary basic residential service in Michigan. And the state expressly exempts wireless and VoIP services from state commission jurisdiction.

AT&T recently announced it has invested in excess of $2 billion in Michigan and created hundreds of new positions around the state from the time the current Michigan Telecommunications Act went into effect and video franchise reform legislation was passed and signed into law in 2006, through 2008.[88]

Ohio

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. There is pricing flexibility for all but primary basic residential service in Ohio. The Ohio utility commission retains authority to regulate wireless and VoIP services only to the extent permitted under federal law.

The Ohio State Senate passed S.B. 162 on Dec. 12, 2010 by a vote of 29-3. The bill would eliminate numerous regulatory requirements that apply to some competitors but not others and which are no longer necessary as a result of competition.

Wisconsin

There is pricing flexibility for all but primary basic residential service in the 17 largest exchanges in Wisconsin. And the state expressly exempts wireless services from state commission jurisdiction. The legislature is currently considering two bills which would modernize the state's telecommunications statutes, S.B. 469 and A.B. 696.

ILLINOIS

Illinois was among the pioneers introducing competition into the telecommunications market. In the Universal Telephone Protection Law of 1985, the Illinois General Assembly declared that "competition should be pursued as a substitute for regulation" to deliver new technologies, improved service quality, choice among telecommunications providers and ultimately lower prices for consumers.[89] The law created "competitive" and "noncompetitive" classifications of telephone services to permit competition and reduce regulation in the long distance and intraLATA toll markets, which new microwave and fiber optic technology made practical in the 1980s.

In 2001, Illinois updated its telecommunications statutes. By the end of 2000, wireless subscribership had increased to 109.5 million, and produced a nationwide penetration rate of roughly 39 percent.[90] In Illinois, CLECs provided wireline service to 831,917 subscribers.[91]

In 2006, the ICC classified residential services in the Chicago LATA as competitive.[92]

CONCLUSION

By simple reforms of outmoded laws, Illinois can ignite a new spiral of innovation and revival based on new technologies and services.

Anticompetitive tariffs, pricing regulation, hidden cross subsidies, unequal consumer protection and provider-of-last resort obligations are not in the public interest. These things prevent telecommunications providers from offering 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:

- Allow full pricing freedom and reduce inflated intrastate access charges so incumbents can compete.
- Eliminate filing requirements that give rivals detailed information about a competitor's new or improved services or products.
- ICC jurisdiction to act on consumer complaints should be eliminated and handled solely within the Attorney General's Office.
- Eliminate service quality regulation, which applies to some providers but not others and is therefore anticompetitive and harmful to consumers.
- Terminate obligations to serve, which impose costs on some providers but not others and are anticompetitive wherever consumers can choose between multiple providers.

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.

These reforms aren't novel or unprecedented. In the Midwest region alone, these reforms have already been adopted in Indiana – and other neighboring states are moving in the same direction.

This is a golden opportunity for Illinois to open up new technological opportunities and economic efficiencies that promise a direct private market economic stimulus of at least $4.5 billion over the five year period ending in 2012 and thereafter in the form of lower prices for voice services, plus an additional $6.2 billion in economic impact annually from increased broadband availability and use – including an estimated 105,622 jobs created or saved per year throughout the state's economy – according to Connected Nation. Jobs are created or saved not only in the telecommunications equipment and services, but also in manufacturing and service industries (especially finance, education and health care).

Broadband will provide unprecedented opportunities for wealth creation in disadvantaged communities and rural areas. Unfortunately broadband is not yet ubiquitous, particularly in disadvantaged communities and remote areas. Yet every Illinois resident should have access to broadband.

AUTHORS

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.

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The authors have previously assessed the state of competition and need for regulatory reform in Illinois, Indiana, Ohio, Michigan and Wisconsin in a paper entitled "More Broadband, Increased Choice and Lower Prices Begin With Regulatory Reform," *Discovery Institute* (Aug. 2008) *available at* http://www.discovery.org/a/7371. A subsequent paper addresses the same issues in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee, "Stimulate Broadband and Lower Utility Bills With Regulatory Reform," *Discovery Institute* (Feb. 2009) *available at* http://www.discovery.org/a/9241. Their most recent paper, "Georgia's Unfinished Telecom Agenda: Regulatory Reform Would Grow Georgia's Economy," *Discovery Institute* (Jan. 2010) *is available at* http://www.discovery.org/a/13941.

The views expressed herein are those of the authors and do not necessarily reflect the views of the Discovery Institute or its directors or staff.

NOTES

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[3] Annual Report on Telecommunications Markets in Illinois, *note 3,* at 11.

[4] Remarks of Alfred E. Kahn before the Federal Trade Commission (Feb. 13, 2007) http://www.ftc.gov/opp/workshops/broadband/presentations/kahn.pdf. 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] Jeffrey A. Eisenach, "Universal Service Subsidies to Areas Served by Cable Telephony," *included as Attachment B in* "Reducing Universal Service Support In Geographic Areas That Are Experiencing Unsupported Facilities-Based Competition," *Petition for Rulemaking* (Nov. 5, 2009) *available at* http://www.ncta.com/DocumentBinary.aspx?id=858 at 15.

[6] *Id.* at 17.

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[13] *Id.* at 3 and Tables 15-16.

[14] In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, *Report and Order and Further Notice of Proposed Rulemaking* (rel. Jun. 12, 2008) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-89A1.pdf.

[15] "Fiber-Optic Providers Are Leading Choices for Internet, Television, and Telephone Service," *Consumer Reports* (Jan. 5, 2009) *available at* http://pressroom.consumerreports.org/pressroom/2009/01/consumer-reports-fiber-optic-providers-are-leading-choices-for-internet-television-and-telephone-service.html ("intense competition for cable and satellite customers between AT&T U-verse and Verizon FiOS high speed fiber providers has driven down rates for Internet, phone and TV service and is likely the reason that companies allow these savings to continue past the promotional period. In the past year, bundles of the three services have dropped in price by up to 20 percent, to as low as $80 a month."). *See also:* "Price War Erupts for High-Speed Internet Service," by Vishesh Kumar, *Wall Street Journal* (Sept. 2, 2008) *available at* http://online.wsj.com/article/SB122031009737388555.html.

[16] "Save a bundle: How to piece together a great deal for TV, phone, and Internet service," *Consumer Reports* (Feb. 2010) *available at* http://www.consumerreports.org/cro/magazine-archive/2010/february/electronics-and-computers/bundling/overview/bundling-ov.htm.

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[18] "Consumer Benefits from Cable-Telco Competition," by Michael D. Pelcovits, Ph.D. and Daniel E. Haar (Nov. 2007) *available* ay http://www.micradc.com/news/publications/pdfs/Updated_MiCRA_Report_FINAL.pdf at 10, 24.

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[20] *Id.,* at 12.

[21] *Id.,* at 25.

[22] *Id.,* at 18-19.

[23] *Id.,* at 29.

[24] In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, WT Docket No. 08-27, *Thirteenth Report* (rel. Jan. 16, 2009) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-54A1.pdf at 5.

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[26] Local Telephone Competition: Status as of June 30, 2008, Industry Analysis and Technology Division, Wireline Competition Bureau, FCC (Jul. 2009), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-292193A1.pdf.

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[28] *Id.*

[29] Stephen J. Blumberg and Julian V. Luke, "Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-December 2007 (Mar. 11, 2009) *available at* http://www.cdc.gov/nchs/data/nhsr/nhsr014.pdf at 5.

[30] *Id.*

[31] "SNL Kagan Forecasts Rapid Shift in Composition of Residential Phone Service," *SNL Kagan* (Apr. 28, 2008) *available at* http://www.snl.com/SNL-Financial/Press_Releases/20080428.aspx.

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[33] *Id.*

[34] *Id.*

[35] Saul Hansell, "Verizon Boss Hangs Up on Landline Phone Business," *New York Times* (Sept. 7, 2009) a*vailable at* http://bits.blogs.nytimes.com/2009/09/17/verizon-boss-hangs-up-on-landline-phone-business/.

[36] *Id.*

[37] 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.")

[38] 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.").

[39] Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Federal Communications Commission* (rel. Jan. 16, 2009) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-54A1.pdf at 8.

[40] "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.").

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[43] 220 ILCS 5/13 203 authorizes the ICC to exempt wireless and point-to-point data transmission from "active regulatory oversight." It is silent with respect to VoIP and Internet broadband services, creating investment chilling regulatory uncertainty.

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[48] *See, e.g.,* Hance Haney and George Gilder, "More Broadband, Increased Choice and Lower Prices Begin With Regulatory Reform," *Discovery Institute* (Aug. 2008) *available at* http://www.discovery.org/a/7371 at 13-16.

[49] "Trends in Telephone Service," *see note 56*, at Table 1.4.

[50] These examples reflect "total charges per conversation minute," which include the four separate components of access charges: originating access, terminating access, switched usage and switched non-usage. Regulators choose which category to assign various

costs. Sometimes regulators over-assign costs, and parties cite one or more categories of access charges as either desirable for a particular social purpose or as unsustainable in a competitive market.

[51] 220 ILCS 5/13-501.

[52] 83 Ill. Adm. Code 745.100.

[53] 83 Ill. Adm. Code 745.200.

[54] "In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace," *Second Report and Order,* (rel. Oct. 31, 1996) *available at* http://www.fcc.gov/Bureaus/Common_Carrier/Orders/1996/fcc96424.txt 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.")

[55] 220 ILCS 5/13-712.

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[57] "The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data," *see note 5* at 14-15.

[58] Robert Steele**,** Commissioner, 2nd District of Cook County (Chicago), IL, National Broadband Plan Workshop: Lessons for the National Broadband Plan from Local Officials Representing Under-Served Communities, *Federal Communications* Commission (Dec. 9, 2009) *available at* http://www.broadband.gov/docs/ws_underserved_communities/ws_underserved_communities_transcript.doc.

[59] Letter from Larry Cohen, President, Communications Workers of America to The Honorable Julius Genachowski, Chairman, Federal Communications Commission (Oct. 15, 2009) *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7020142161; *see also* Prepared Remarks of Commissioner Mignon L. Clyburn, *note 42* ("While some government money is and will be available to help defray the cost of broadband and to support creative adoption programs, it is evident that we cannot do it all on our own.").

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[61] National Broadband Strategy Call to Action, *Communications Workers of America* (Dec. 2, 2008) *available at* http://www.cwa-union.org/news/national-broadband-strategy-call-to-action.html.

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[64] *Id.,* at 14.

[65] "The Economic Impact of Stimulating Broadband Nationally," *Connected Nation* (Feb. 21, 2008) *available at* http://www.connectednation.com/research/economic_impact_study/index.php at 8, 15-16.

[66] *Id.,* at 7.

[67] "The Economic Impact of Stimulating Broadband Nationally," *Connected Nation* (Feb. 2008) *available at* http://www.connectednation.com/research/economic_impact_study/.

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[74] *Id.*

[75] "Digital Nation: 21st Century America's Progress Toward Universal Broadband Internet Access," *U.S. Department of Commerce* (Feb. 2010) *available at* http://www.ntia.doc.gov/reports/2010/NTIA_internet_use_report_Feb2010.pdf at 3.

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[79] *Id.,* at 6.

[80] *Id.*

[81] Note 49

[82] Jenna Wortham, "Mobile Internet Use Shrinks Digital Divide," *New York Times* (Jul. 22, 2009) *available at* http://bits.blogs.nytimes.com/2009/07/22/mobile-internet-use-shrinks-digital-divide.

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[91] Federal Communications Commission Releases Latest Data on Local Telephone Competition (May 21, 2001) *available at* http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/lcom0501.pdf at Table 6.

[92] The Illinois Commerce Commission has found that almost all of AT&T's residential lines are competitive in two recent cases. In 2006, the ICC found the Chicago MSA competitive (ICC Docket No. 06-0027) and in 2009 the ICC made the same competitive finding for the Rockford, Davenport, Peoria, Champaign, Springfield, and St. Louis MSAs (ICC Docket No. 08-0569).