

Briefing Paper

What to Think About When You Think About Telecommunications Deregulation

The National Regulatory Research Institute

April 2005

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EXECUTIVE SUMMARY

State regulatory commissions are actively deliberating the extent to which continued oversight of telecommunications carriers is necessary now that competition is truly developing in this rapidly changing industry. Some of the impetus comes from federal proceedings that seek to assure that regulation, whether federal or state, does not stifle the innovation and entrepreneurship that we see on every hand. However, much of the push at the state level comes from large telephone companies seeking sweeping deregulation through legislation or commission proceedings. The National Regulatory Research Institute (NRRI) counts 19 states as facing deregulatory proposals from large incumbent carriers. There may well be more.

The first issue likely to come to mind when considering state regulation of telecommunications is local rates. But states do much more than setting or capping rates, and many regulatory activities have little to do with rates. Other responsibilities include assuring that all customers have access to basic, affordable telephone service; protecting and educating consumers; assuring service quality; encouraging deployment of new technologies and, of course, promoting competition. When state regulators think about telecommunications deregulation, they need to think about all of their statutory responsibilities, not only prices.

This briefing paper reviews major state obligations and programs in telecommunications to help inform policy makers as they decide what functions they want to keep, whether temporarily or into the foreseeable future, and what functions they want to give up. It is aimed primarily at state-level deregulatory initiatives, not those at the federal level. This paper also gives a snapshot of state-level deregulatory proposals as of spring 2005. Though each state is different and will have its own view of how best to serve its citizens in today's world, this inventory provides a concise overview to aid those deliberations.

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The authors acknowledge the suggestions and comments of commissioners and staff from several commissions.

EVOLUTION OF STATE RESPONSIBILITIES

With competition developing in telecommunications markets, states are asking what traditional regulatory functions are still necessary.

States today have jurisdiction over intrastate telecommunications services (local and toll) delivered via *landline* networks. State jurisdiction over wireless telecommunications is limited to possible regulation of “other terms and conditions” of service¹ rather than prices (which are not regulated)² or entry (which is determined by the Federal Communications Commission’s (FCC) spectrum allocation policies). Most states do not regulate cable companies. And interstate and information services are in the federal jurisdiction.

Most state functions derive from their own legislation. Some state functions result from state responsibilities in implementing the federal Telecommunications Act of 1996 (the Act), which opened local telecommunications markets to competition and required states to take a number of actions. At the same time, the national or international character of some communications services has led to federal preemption of some state regulatory efforts—for example, the FCC’s determination that Internet-bound traffic is essentially interstate in nature and federal preemption of attempts to apply state rules to Voice over Internet Protocol (VoIP) providers.

It would be extremely unwise to completely dismantle state regulation without assurance that meaningful competition is firmly established.

The stated goals of the Act were to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies. Truly competitive markets require little, if any, regulation other than the sorts of antitrust, consumer protection, environmental, fair trade, labor and safety rules that apply to all businesses.

Increasing reliance on competitive forces has resulted in evolution of the role of regulatory commissions with a general trend towards less direct economic regulation of retail rates of telecommunications services and increased emphasis on market referee and consumer protection and education functions in a multi-provider environment. Thus, regulators might look towards a future in which many historic or current functions are phased out and develop criteria for determining when a particular function of class of functions may be eliminated. This is especially true for regulatory functions that apply to certain firms or classes of firms (incumbents or dominant providers) and not to others.

Competition in telecommunications markets may result in some traditional regulatory functions being considered for elimination or forbearance. For example, at the federal level the Act provides that the FCC forbear from enforcing regulations or provisions of the Act on carriers or services when: (1) enforcement is not necessary to ensure that the charges, practices, classifications or regulations relating to those carriers or services are just and reasonable and are not unjustly or unreasonably discriminatory; (2) enforcement is not necessary for the protection of consumers; and (3) forbearance is consistent with the public interest. The public interest criterion may be met by a determination that forbearance will promote competition.³ At the state level, the ability and willingness to forbear when appropriate may prove beneficial. However, retention of residual authority to lift forbearance and reassert some traditional features of regulation is also useful and might be necessary should optimistic predictions regarding the growth, sustainability and benefits of competition not prove accurate. Moreover, it would be extremely unwise to dismantle the regulatory apparatus

without assurance that meaningful competition is firmly established.

In many states, incumbent telephone companies (ILECs) are promoting legislation that would largely free them from state regulation of prices and/or quality. Backers of the legislation claim such deregulation would spur investment, promote innovation and allow ILECs to compete with competitors (CLECs), who are generally subject to a lower level of regulatory scrutiny. Moreover, they argue that competitive market forces are sufficient to constrain behavior. They see competition from wireless providers and from VoIP as significant factors. They want the current regulatory structure scrapped almost entirely so that unfettered competition, innovation and new investment can lower costs and expand choice.

Opponents of deregulation, including consumer groups and CLECs, fear the effects of eliminating state authority to police telephone prices, terms and quality. Opponents note that the incumbent companies control over 80 percent of access lines nationally and doubt the ability of competition to restrain the ILECs, especially since CLECs often depend on ILECs as providers of wholesale services.⁴ Opponents fear that deregulation will result in higher prices and fewer choices for consumers because competition will not be able to grow. Moreover, mergers between large ILECs and major competitors (such as SBC and AT&T, and Verizon or Qwest and MCI) point towards increased concentration in telecommunications markets.

EVALUATING STATE RESPONSIBILITIES

Well into the 1990s, state regulation was built on the assumption that local telephone companies were monopolistic

public utilities, and regulation of rates was necessary to keep prices at levels approximating those resulting from competitive market forces.⁵ Local rates were and are a core focus of state regulatory oversight, but many regulatory activities have little to do with rates. Other responsibilities include assuring that all customers have access to basic, affordable telephone service; protecting and educating consumers; assuring service quality; encouraging deployment of new technologies and, of course, promoting competition.

When states evaluate their forward-looking role in telecommunications oversight, they will do well to begin with an analysis of the relevance of today's tools to traditional goals. If the market can do a better job, the function should be phased out or eliminated. If the function continues to support achievement of an important economic or social goal, it should be kept. Even if the function fulfills an important public goal, it is possible that the state regulatory commission is not the right place for it. Some functions might be shifted to other state agencies under a new regulatory regime to increase their efficacy. In addressing that alternative, an important concern is whether the regulatory commission has comparative advantage in carrying out the function. These various criteria are discussed below, preparatory to the assessment of individual functions that comes next.

Goals of Regulation

Both economic and social goals inform public utility regulation. Most of the goals have been predicated on the idea that utility markets were not subject to effective competition or that competitive markets may not produce socially desirable results. In addition, traditional utility services are generally considered to be essential, so ensuring their availability,

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If the market can do a better job, a function should be phased out or eliminated. If the function continues to fulfill an important policy goal, it should be kept.

reliability, quality and affordability became legitimate public policy goals. The major economic and social goals of telecommunications regulation are:

- Encouraging economic development through:
 - Ubiquitous deployment of basic facilities and services
 - Availability of advanced telecommunications services to every American
- Ensuring adequate reliability and quality of service, which in the past included maintaining the financial integrity of utilities to ensure stable provision of service
- Providing fair treatment of consumers, which includes giving consumers the opportunity to be heard, providing a forum for complaint resolution and inhibiting undue discrimination among various groups of consumers
- Acting as a surrogate for competition, limiting the exercise of market power by monopoly providers, encouraging utility cost control and efficiency and encouraging technical progress and innovation
- Promoting competitive entry
- Supporting universal service (for high-cost areas, low-income consumers and speech and hearing-impaired users)

Temporal Considerations

The market structure of an industry often evolves, passing through periods where regulation is deemed warranted and periods where competition, tempered by antitrust laws, is considered the better governor. In assessing the need for a particular regulatory function

in telecommunications, it will be enlightening to consider whether it is likely to be a temporary function, lasting only as long as an expected transition to competitive markets takes place, or whether the function is likely to endure.

State Level Alternatives to Commission Oversight

A state public utility commission (PUC), if it has not already fully developed a necessary regulatory function, may not be the best place to house the function. One model for shifting functions to other agencies may be found in the disbanding of the Interstate Commerce Commission (ICC). When the ICC, the oldest of the federal regulatory agencies, was dissolved, many of its functions were shifted to other agencies such as the National Highway Traffic Safety Administration (NHTSA), the Federal Railroad Administration (FRA), and the Surface Transportation Board (STB). At the state level, some functions might be shifted to Attorneys General, consumer protection agencies, development agencies or courts.

On the other hand, a commission may still have an advantage over other state agencies in meeting the goals of telecommunications regulation. A commission's comparative advantage might flow from its ongoing relationship with the industry or market and the specialized knowledge that accrues as a result, or it might have comparative advantage from economies of scope resulting from dealing with similar issues across several markets or industries. In addition, the ability of commissions to act in both quasi-judicial functions (making findings of fact such as licensing, certificating, approving, or deciding specific cases) and quasi-legislative functions (promulgating rules and regulations) may give it an advantage.

The major goals of regulation are economic development, service quality, fair treatment of consumers, universal service, promotion of competition and acting as a surrogate for competition where necessary.

ASSESSMENT OF REGULATORY FUNCTIONS

In the following discussion, we list and provide a brief rationale for traditional functions of regulation, identify the goals served, categorize the functions as to their likely importance at present and in the future and offer some thoughts on what agency other than a regulatory commission might be assigned a function. In all cases, the discussion assumes continuation of existing federal law.

Setting Retail Rates

Importance: Medium to low except in high-cost areas or areas lacking effective competition

Goal(s) served: Acting as a surrogate for competition, fair treatment of consumers, ensuring reliable and high quality service, social goals

Rationale: Originally, this was the core regulatory function, and elaborate schemes were developed to ensure that retail rates were just and reasonable—not overcharging consumers but allowing the company to meet its obligations to its creditors and investors and deliver reliable, high-quality service. In addition, the rates for basic services (especially for residential customers) were set at an affordable level to promote and maintain a high level of subscribership. In a network industry, a high level of subscribership makes the network more valuable to everyone who has access to it.

This function relied on setting rates pursuant to the findings of a general rate case in which the company’s jurisdictional costs (including a reasonable cost of capital for rate making purposes) were determined and allocated among services, and rates for individual services were approved.

In the absence of competition, this was considered to be an essential function, since an unregulated monopolist would have strong incentives to set prices above the level that would obtain in a competitive market.

Temporal dimension: This is likely to be a transitory function. In areas with effective competition and for services that are effectively competitive, market forces should be adequate over the longer term. Where (and when) robust competition develops, direct regulation of prices may be relaxed. However, until competition is so firmly established that it is obvious that no control over prices is needed, residual authority will still be necessary to ensure that rates are just and reasonable. In areas without effective competition or in high-cost areas, price ceilings or caps might still be used to mitigate market power and/or to keep basic service affordable to further universal service goals.

Agency if not PUC: Because other agencies are not well equipped for setting rates, to the extent that this function remains necessary, it should remain with the PUC.

Price Cap Regulation

Importance: Medium except in high-cost areas or areas lacking effective competition

Goal(s) served: Acting as a surrogate for competition, encouraging utility cost containment and efficiency, fair treatment of consumers, ensuring reliable and high quality service, social goals

Rationale: The traditional rate case process described above was criticized as being cumbersome, resulting in inefficiencies, and providing weak incentives for cost containment and technological innovation. As a result, even before

We assess whether to keep state regulatory functions by the goals served, importance, rationale, timing and whether other agencies could do the job.

competition was allowed and encouraged, state commissions adopted various forms of incentive or alternative regulation (sometimes referred to as “light-handed regulation”), the most common of which was price-cap regulation.

Under a price-cap regime, the firm is allowed to change its prices for individual services (or the average price of a basket of services) on an annual basis according to a formula typically based on the general inflation rate, a productivity offset factor and other factors. Price-cap plans often included freezes or stricter controls on increases in basic local telephone service rates but allowed more flexibility in the pricing of optional or potentially competitive services (e.g., voice mail, caller ID).

Neither price caps nor other incentive or alternative regulation plans are equivalent to deregulation. Although price caps give the company more flexibility in setting prices and allow it to increase profits by reducing costs (provided that service quality goals are met), there were still provisions for oversight, monitoring and review in many plans.

Temporal dimension: This may be a transitory function. In areas with effective competition and for services that are effectively competitive, market forces should be adequate. At present, oversight through price caps or other mechanisms ensures that rates are not excessive and that rates for basic services fall (or do not increase) in real terms. Where (and when) robust competition develops, even alternative regulation might be relaxed. However, until competition is so firmly established that it is obvious that no control over prices is needed, residual authority will still be necessary to ensure that rates are just and reasonable and to monitor competition. In areas without effective competition or in high-cost

areas, price ceilings or caps might still be used to mitigate market power and/or to keep basic service affordable to further universal service goals.

Agency if not PUC: Because other agencies are not well equipped for determining the appropriate price cap, to the extent that this function remains necessary, it should remain with the PUC.

Maintaining Tariffs

Importance: Low except for informational purposes

Goal(s) served: Fair treatment of consumers, no undue discrimination

Rationale: When competition was not allowed and rates were set through the administrative, rate-case process, tariffs were the written rules that stated the terms, conditions and prices for various services. Tariffs were approved by commissions and represented a generic contract between the firm and its customers. Companies could not charge a customer more than the tariff rate, and they could not change the tariff rate without permission. Tariffs gave customers assurance that they would be treated the same as similarly situated customers.

In competitive markets, dynamic forces may require that prices and/or service offerings change faster than can be accommodated in traditional processes. As a result, informational tariffs that are in effect when filed (or even ex post filings) should be adequate. However, states may wish to maintain rules requiring notice to consumers prior to the effective date of a price change (e.g., 30 days).

Temporal dimension: Assuming that competition continues to develop, it is possible that tariffs for retail services

Setting retail rates, including by price caps, is likely to be a transitory function.

Tariffs are on their way out as competition develops.

will be eliminated or serve mainly an informational purpose as posted price lists.

Agency if not PUC: If tariffs become informational filings or price lists that may be changed at will, this function might be shifted to a consumer protection agency or Attorneys General to ensure that the tariffs or price lists were posted and that consumers were given sufficient notice of price changes. The PUC's ongoing oversight of the industry gives it an advantage in maintaining tariffs or price lists.

State Universal Service Funds

Importance: High

Goal(s) served: Ubiquitous deployment, social and economic development goals.

Rationale: Universal service has long been an important goal of state regulation to ensure deployment of a ubiquitous telephone network and maintain end-user charges for basic telephone service at an affordable level to induce a high level of subscribership or penetration. Both ubiquity and affordability are addressed by state universal service funds (USFs). In furtherance of these goals, a number of state commissions have established USFs—a 2002 NRRI survey reported that slightly fewer than half the states had a USF in operation.⁶

Federal law directs the FCC and the states to take actions to preserve and advance universal service. So long as there are geographic areas with demonstrably higher than average costs, there will be a need to support service in those areas to maintain reasonable comparability in end-user charges in all areas.

The major principles underlying universal service policies are found in the Act:

- Consumers in all regions of the nation, including low-income consumers and those in rural, insular and high cost areas, should have access to telecommunications and information services ... that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.⁷
- There should be specific, predictable and sufficient federal and state mechanisms to preserve and advance universal service.⁸

Temporal dimension: This function is likely to be a permanent feature of public policy so long as universal service is viewed as an important social goal.

Agency if not PUC: It might be possible for another agency—on economic development or commerce department—to administer a state USF or state infrastructure fund. However, the PUC's experience in analyzing telephone cost data gives it an advantage unless universal service contribution mechanisms are radically revised.

Lifeline and Linkup Programs

Importance: High

Goal(s) served: Universal service, social goals

Rationale: Low-income consumers may be especially vulnerable to rising prices. Lifeline and Linkup are means tested programs that have proven effective in raising the telephone penetration rates for low-income households. This is especially true when the federal Lifeline and Linkup assistance is coupled with state assistance.

Universal service functions are a feature of public policy so long as this is an important goal. But the state role will change if contributions mechanisms are revised radically.

Designation of carriers eligible to receive federal universal funds could default to the FCC, but the FCC today does not have the on-the-ground knowledge to do it.

Temporal dimension: This function will be needed so long as social policy aims to provide targeted assistance so that low-income households can be connected to the telephone network.⁹

Agency if not PUC: It would be possible for another agency to administer this program. In fact, certification for lifeline and linkup assistance is often handled by other (social service) agencies. To the extent that state lifeline programs are funded via state universal service funds, state commissions may have advantages in designing and administering collection and disbursement schemes.

Certification of Eligible Telecommunications Carriers

Importance: High

Goal(s) served: Ubiquitous deployment, social goals, promotion of competition

Rationale: State commissions have primary responsibility for designating eligible telecommunications carriers (ETCs) to receive federal universal service support¹⁰ and, in certifying them, impose requirements to assure that funds are used only for the provision, maintenance and upgrading of facilities and services for which support is intended. Because ETCs are required to offer service throughout their designated areas, they may be considered to have carrier-of-last resort obligations. In addition to certification of ILECs as ETCs, competitive providers have also sought and obtained competitive ETC status. Although certification of carriers as ETCs should, in general, be straightforward as competition develops in much of the country, ensuring that universal service funds are used as intended in high-cost areas and determining whether multiple ETCs are in the public interest in rural areas is an appropriate function and should

continue. Recently, the FCC changed the requirements for ETC designation. The FCC said that the changes will make the process more predictable, improve the sustainability of the federal universal service fund and clarify the application of the public interest standard in designating ETCs.¹¹

Temporal dimension: This function will be ongoing so long as there are federal and state universal service funds and carriers must be certified to receive support from them.

Agency if not PUC: If states choose not to designate ETCs, this function defaults to the FCC. However, it is questionable whether the FCC has the resources or on-the-ground knowledge to address this function. Moreover, other state agencies may lack the knowledge base and analytical capability that state commissions bring to maintaining oversight of ETCs.

Disconnection/Reconnection Rules

Importance: High

Goal(s) served: Social goals, consumer protection

Rationale: To ensure that as many households and individuals as possible have access to the telecommunications network, reasonable rules are needed to determine when a customer may be disconnected for non-payment and reconnected after a disconnection. Because the telephone network delivers basic services as well as toll and enhanced or vertical services, some states have found it useful to require that basic services not be disconnected so long as customers are paying for those services. In those states, nonpayment of charges for toll and vertical services are not grounds

for disconnection of basic service, though a customer may be blocked from the toll network or lose vertical services. Providers could still attempt to collect customer arrearages through normal collection channels.

The growth of service bundles that combine local, toll, and vertical services for a flat charge creates some difficulty in separating basic and non-basic charges, but it might still be useful to provide a basic-service-only option for consumers who have had difficulty paying for larger bundles of service.

Temporal dimension: So long as social policy aims at keeping as many households as possible connected to the telecommunications network, some oversight or disconnection and reconnection policies will be necessary.

Agency if not PUC: This function might be shifted to consumer protection agencies or to Attorneys General. However, the PUC is likely to have an advantage flowing from its involvement with the industry and its long-standing contact with consumers.

Resolution of Consumer Complaints

Importance: High

Goal(s) served: Fair treatment of consumers

Rationale: Competitive markets provide for consumer choice, which is good. Unfortunately, competitive markets with multiple providers may also lead to consumer confusion or attract unscrupulous firms with deceptive practices such as slamming, cramming and erroneous billing. Consumers with complaints or disputes over service and billing are well served by the existence of a forum through which they may

seek resolution and redress. In addition, consumer complaints about service quality, repair times and reliability may provide input into commission oversight of service quality.

Temporal dimension: This is likely to be an ongoing function.

Agency if not PUC: Attorneys General or other state consumer protection agencies. Indeed, state Attorneys General may be the correct agency for addressing serious cases of fraud. However, commissions' ongoing relationship with the companies and knowledge of the services being provided gives them significant advantages in resolving the numerous and normal complaints and disputes regarding service and billing.

Consumer Education

Importance: High

Goal(s) served: Fair treatment of consumers, promoting competition

Rationale: Even in a competitive market, telecommunications pricing and service can be confusing to consumers. The task of educating consumers derives directly from the task of responding to complaints. As complaints are tracked and analyzed, patterns are discernible. Providing consumer information and education helps to make the competitive market work and reduces the number of inquiries and complaints for issues that are resolvable with more and more accessible information.

Temporal dimension: At some level, this function is likely to be long lived, though it may decrease in importance as consumers become fully knowledgeable about and comfortable with the choices available to them in telecommunications markets.

Attorneys General or state consumer protection agencies should address serious cases of fraud, but state commissions have a comparative advantage in resolving the numerous, normal consumer complaints.

Agency if not PUC: Consumers counsels and Attorneys General could take on or share this function, but commissions are likely to have the comparative advantage.

Setting, Monitoring and Enforcing Retail Service Quality Standards

Importance: High

Goal(s) served: Ensuring adequate reliability and quality of service, economic development

Rationale: It is no pun to say that telecommunications is a network industry. The degree of interconnection among networks may make perceived service quality a common or public good. When networks are interconnected and traffic may flow over multiple networks between parties, perceived service quality equals the lowest level provided on any of the various interconnected networks. In addition, customers may be expecting ever higher levels of service quality as they rely on telecommunications networks for an increasing variety of functions. As we move toward more advanced services, service quality and reliability will become more important.¹² This appears to be the case with wireless services in that users demand more reliability and better service the more they use those services. Moreover, any area without a reliable, high quality communications network will suffer with respect to economic development.

Temporal dimension: Ongoing

Agency if not PUC: Although consumer protection agencies and Attorneys General could take on or share this function, commissions are likely to have the comparative advantage.

Service quality becomes even more important in a telecommunications network with advanced services.

Survivability and Restoration Standards

Importance: High

Goal(s) served: Reliable service

Rationale: Ensuring the survivability of communications networks and establishing priorities for service restoration after natural disasters or other events has become an essential function. Commissions may bring various industry players together to promote cooperation in developing and implementing plans to harden networks and ensure that communications facilities are available in the event of emergencies.

Temporal dimension: Ongoing

Agency if not PUC: In many cases, commissions are not the lead agency in developing survivability and restoration plans; agencies such as Homeland Security, law enforcement, or FEMA may take the lead.

Carrier Certification

Importance: High

Goal(s) served: Promoting competition, ensuring reliable service

Rationale: Even though exclusive service franchises were eliminated by the Act, there are still reasons for requiring certification of carriers. In most instances, a carrier must be certificated to obtain wholesale services such as interconnection, to resell ILEC services or obtain unbundled network elements (UNEs). Moreover, there is a strong public policy interest in ensuring that firms offering communications services possess adequate financial, managerial and technical capability to provide adequate and reliable service to their customers. Nevertheless, the process

should be as simple as possible so as not to raise undue barriers to entry.

Temporal dimension: Ongoing

Agency if not PUC: If there were no PUC, this function might be undertaken by state Secretaries of State. However, the PUC's understanding of the industry gives it an advantage.

Market Referee Functions: Intercarrier Disputes over Unbundling and/or Collocation

Importance: High

Goal(s) served: Promoting competition

Rationale: The major thrust of the Act was to open telecommunications markets (especially local markets) to competition; moreover, the Act promoted competition rather than merely tolerating it. Although telecommunications markets are officially open and much progress has been made, it is too early to declare them fully competitive.

Temporal dimension: Although this might be considered a transitory function, experience since 1996 has shown that many disputes arise, especially when some carriers depend on others for wholesale services, many of which are not available from other sources. So long as ILECs provide linchpin network services, some entity with specialized knowledge will be needed to settle disputes, place boundaries on acceptable competitive behavior, and assess penalties. To the extent that facilities-based competition develops and alternative wholesale providers are available, the importance of this function may decrease.

Agency if not PUC: Attorneys General and courts might be able to undertake

this function. However commissions are able to apply specialized knowledge and act faster than can Attorneys General or courts. Given the potential for immediate harm to competition, commission expertise in these issues and rulemaking authority can be used before harm is done.

Market Monitoring: Information Gathering and Analysis

Importance: High

Goal(s) served: Promoting competition, protecting consumers

Rationale: Competition is established and generally growing, and its growth will undoubtedly obviate the need for some traditional regulatory functions at some point in time. Nevertheless, competition is not so mature in most markets that those functions can be eliminated at present. An ongoing program of market monitoring and information gathering and analysis will allow commissions and legislatures to determine when market forces are, indeed, strong enough to justify eliminating functions.

Even after some regulatory functions are eliminated, commissions should retain residual authority to reinstitute certain regulatory features should market conditions warrant. Moreover, ongoing monitoring and analysis may be justified to see when residual regulatory authority might be applied.

Temporal dimension: Ongoing at least until competition is completely ingrained into telecommunications markets.

Agency if not PUC: Attorneys General could undertake this function. However, commissions' information gathering and rulemaking ability allows them to act

Until competition is completely ingrained, commissions are the best venue for monitoring and serving as referee in telecommunications markets..

proactively to ensure that competition remains sustainable.

Enforcement of Performance Assurance Plans

Importance: High

Goal(s) served: Promoting competition

Rationale: In order to enter the in-region long distance market, Bell Operating Companies were required to open up their networks to competitors and give them the same level of service as they give themselves. The resulting performance assurance plans are meant to be self-enforcing. The prospect now is for intercarrier relationships to be governed by commercial agreements, which means that, over time, performance assurance plans will become moot. In the meantime, CLECs have some 20 million customers that they serve through UNE platforms (UNE-P) or UNE loops (UNE-L), with intercarrier service quality specified through performance assurance plans. Enforcement issues may still arise during the period where commercial agreements replace these plans. The competitors may well wish to be able to call on state commissions in instances where self-regulation does not deter poor performance and injury to the CLEC and its customers. Moreover, immediate harm may be done to competition due to poor performance at the wholesale level, so swift action is required.

Temporal dimension: This is likely to be a transitory function, though the transition may take some time. The growth of facilities-based competition and the development of true wholesale markets for UNEs may move this from a regulatory to a commercial function. In the interim, however, monitoring and oversight of ILEC behavior is necessary to promote sustainable local competition.

Wholesale performance assurance will move from a regulatory function to a commercial one.

Agency if not PUC: Courts or other agencies could enforce performance assurance plans. However, it would be unnecessarily costly to transfer this interim function to another agency.

Setting Rates for Unbundled Network Elements

Importance: Medium

Goal(s) served: Promoting competition

Rationale: Current FCC policy is to limit the scope of available UNEs, allow UNE rates to rise and promote the use of commercial agreements between carriers. In addition, the trend will undoubtedly be towards more competition via Internet-enabled services. Nevertheless, circuit-switch-based competition will continue to be a major force for some time, and rates charged for unbundled elements must be set so as to allow competition to be sustainable. As a result, it continues to be necessary to apply a reasonableness standard to rates for those elements that continue to be unbundled.

Temporal dimension: This function is likely to be transitory, but the speed of transition depends on the growth of competition, especially facilities-based competition, and the impact of broadband and wireless technologies.

Agency if not PUC: The specialized knowledge embodied in commissions gives them a significant advantage in carrying out this function so long as it is needed.

Approving and Arbitrating Interconnection Agreements

Importance: High

Goal(s) served: Promoting competition

Rationale: The Act provides that “[a]ny interconnection agreement adopted by negotiation or arbitration shall be submitted for approval to the state commission.”¹³ Moreover, so long as competitors obtain interconnection and other services largely from the incumbent it is important for state commissions to ratify and arbitrate interconnection agreements. In addition, bilateral agreements should be reviewed to ensure that other parties are not disadvantaged. Indeed, one ground for a state commission to disapprove a negotiated or interconnection agreement is that it would discriminate against a third party not involved in the agreement.¹⁴

Recently, some ILECs have attempted to keep the terms of negotiated interconnection agreements secret, treating them as private business agreements. There is a clear public interest in ensuring that bilateral agreements do not discriminate in favor of some competitors at the expense of others.

Agency if not PUC: This arbitration function defaults to the FCC if a state commission is unable or unwilling to undertake it. The limited history of FCC arbitration does not leave a favorable impression. State Attorneys General might undertake the review, but they may lack the specialized human resources to adequately perform the task.

Granting Rural Exemptions

Importance: Low

Goal(s) served: Universal service

Rationale: State commissions were given the authority to exempt rural ILECs from some competitive provisions of the Act.¹⁵ However, it is not clear how many rural exemptions are still in force, and state commission designations of competitive

ETCs in rural areas shows that these exemptions may no longer be in the public interest.

Temporal dimension: Over time, this function is likely to become less important as competition becomes ubiquitous.

Agency if not PUC: So long as this function continues to be needed, the PUC has an advantage in assessing whether the public interest is served by these exemptions.

State Implementation of FCC or Court Decisions

Importance: High

Goal(s) served: Universal service, promoting competition

Rationale: The Act gave state commissions several responsibilities. In addition, FCC implementation of the Act and court decisions relating to the Act often require states to take actions to adapt or interpret national rules to fit or apply to state or local conditions. These are important functions to ensure that national and state goals with respect to competition and universal service are met. Moreover, implementation and tailoring of national rules to fit state circumstances will require a state to have staff familiar with telecommunication policy as well as state and local conditions.¹⁶

Temporal dimension: This is likely to be an ongoing function. In addition, though we make no assumption as to the provisions of a possible rewrite of the Act, if a rewrite occurs, states may face new responsibilities.

Agency if not PUC: State obligations to implement FCC decisions under existing federal law—or under rewrites of federal law—would be difficult to shift to other agencies. If a PUC did not

States have assumed an unfunded mandate to implement FCC and court decisions.

already exist in a state, one might have to be created to make necessary findings of fact, promulgate state-level rules and ensure that specific state conditions are accounted for.

Numbering Issues: Pooling, Conservation, Area Code Assignment and Local Number Portability

Importance: Medium

Goal(s) served: Promoting competition

Rationale: States will have a continued need to enforce number conservation plans, design new NPA (area code) boundaries when necessary, and monitor and enforce local number portability (LNP). Conservation strategies and pooling have largely put a halt to the wave of area code splits and overlays that afflicted consumers until recently. In addition, local number portability rules that included wireline to wireless and wireless portability are competition-enhancing or enabling policies.

Temporal dimension: Numbering issues may become of less concern over time, but oversight of numbering resources is still required to maintain the health of the North American Numbering Plan.

Agency if not PUC: The FCC has exclusive jurisdiction over numbering administration, but it may delegate that authority to state commissions, and it has done so with respect to many state-level decisions.¹⁷ Although this function could default to the FCC, the PUC is best suited to making these decisions. It would not be efficient for such decisions to be made far away from individuals, businesses and communities affected by changes in area codes.

States will continue to have a role in numbering issues because they are closer than the FCC to the people affected.

Setting Intrastate Access Charges

Importance: Medium

Goal(s) served: Promoting competition

Rationale: On a historical basis, interstate and intrastate access charges were used to provide implicit subsidies to local rates. Major reductions in interstate access charges and FCC policy of unifying intercarrier compensation—including access and reciprocal compensation charges—have put pressure on intrastate access charges. Moreover, the existence of multiple charges for what are essentially the same network functions is not compatible with the trend of communications to lose its sense of location and distance. Though some variation in intercarrier compensation rates across companies may remain, separate intrastate access charge regimes will go away after the transition to national unified intercarrier compensation rates.

Temporal dimension: As we move toward a unified intercarrier compensation regime, and as the practical distinctions between interstate and intrastate calls decrease, this function is likely to be eliminated.

Agency if not PUC: So long as this function remains, the PUC is the most logical venue.

SUMMARY OF STATE DEREGULATORY LEGISLATION

Legislation to deregulate telecommunications services has been recently introduced or passed in 19 states. Table 1 lists the bills and their current status in the legislative process. The table also notes states in which

Table 1: Telecommunications Deregulation Legislation in the States
(as of April 2005)

| State | Bill Number | Status |
|--|-------------------------|---|
| Legislation Under Consideration | | |
| Alabama | SB 114 | Introduced 2/1/05, passed Senate 3/15/05; passed House committee 3/31/05 |
| Florida | HB 1649 | <u>House</u> : introduced 3/8/05, Utilities and Telecommunications Committee passed substitute (similar to Senate bill) 4/6/05, passed Transportation and Economic Development Appropriations Committee 4/15/05, referred to Commerce Council 4/15/05 |
| | SB 2068 | <u>Senate</u> : introduced 3/16/05, passed Communications and Public Utilities Committee 4/05/05, referred to Commerce and Consumer Services Committee 4/06/05 |
| Georgia | SB 120 SR 298 | SB 120 introduced 2/7/05, did not pass committee; SR 298 (passed Senate 3/10 and House 3/29) refers the issues to a study committee until next year |
| Illinois | SB 1700 | Introduced 2/24/05, passed Senate 4/15/05 |
| Indiana | HB 1518 | HB 1518 introduced 1/18/05, died as part of broader procedural battle before 3 rd reading 3/4/05; attached by House committee to SB 381 (passed Senate 2/28/05), which passed House as amended 4/11/05; House and Senate conferees appointed 4/14/05 |
| | SB 381 | |
| Kansas | SB 120 | Introduced 1/27/05, hearings 2/16, 2/21/05; withdrawn from Utilities Committee and referred to Ways and Means Committee 2/24/05; withdrawn from Ways and Means Committee and re-referred to Utilities Committee 2/25/05 |
| Missouri | SB 237 | Introduced 1/26/05, passed Senate 3/14/05; passed House Utilities Committee 4/14/05 |
| Montana | HB 539 | Introduced 2/03/05, hearings 2/14/05, tabled 2/15/05, missed deadline for general bill transmittal 3/1/05; unlikely to be revived. |
| New Mexico | HB 750 | <u>House</u> : passed Consumer and Public affairs Committee 2/26/05, referred to Business and Industry Committee |
| | SB 672 | <u>Senate</u> : passed Corporations and Transportation Committee 2/26/05, passed Judiciary Committee 3/6/05, withdrawn from Senate calendar and tabled 3/10/05 |
| Oregon | SB 600 | Introduced 2/15/05, passed Senate 3/22/05; referred to House committee 3/28/05 |
| South Carolina | HB 3633 | Introduced 2/24/05, referred to committee |
| Tennessee | HB 593 | <u>House</u> : introduced 2/3/05, referred to Commerce Committee 2/7/05, assigned to Utilities and Banking Subcommittee 4/13/05 |
| | SB 182 | <u>Senate</u> : introduced and referred to Commerce, Labor & Agriculture Committee 2/3/05, recalled from committee and referred to Transportation Committee 4/14/05 |
| Texas | HB 789 | <u>House</u> : introduced 2/1/05, passed 3/29/05; referred to Senate committee 4/05/05 |
| | SB 332 | <u>Senate</u> : introduced 2/7/05, hearings 2/15, 3/15/05, left pending in committee |
| Vermont | HB 495 | Introduced 3/08/05, referred to committee |
| Legislation Already Enacted | | |
| Idaho | HB 224 | Introduced 1/27/05, signed into law 3/29/05 |
| Iowa | HF 277 | Introduced 2/11/05, signed into law 3/15/05 |
| North Dakota | SB 2216 | Introduced 1/12/05, signed into law 4/06/05 |
| Pennsylvania | Act 183 of 2004 (HB 30) | Signed into law 11/30/04 |
| Utah | SB 108 | Introduced 1/11/05, signed into law 2/15/05 |
| Legislation Expected but not Yet Introduced | | |
| Michigan | NA | Bill expected in the future; current telecom law expires 12/31/05 |
| Ohio | NA | Bill expected in the future |
| Commission-Initiated Actions | | |
| California | NA | Commissioner-proposed investigation |
| Colorado | NA | Commission has open docket; legislation expected |
| Oklahoma | NA | Commission study, following recommendation by legislature (SCR 74 in 2004) |

Source: Authors' construct.

Legislation to deregulate telecommunications services has recently been passed or introduced in 19 states.

commission observers either forecast legislation within the coming year or reported commission activity on the topic of telecommunications deregulation.

Below is a brief summary of the legislation in each of the 19 recently active states with respect to the legislation's potential effect on commission authority. This survey of state legislative activity does not include bills devoted to exempting broadband and other advanced technologies from commission regulation (see, for example, Mississippi's House Bill 1239). Though the bills considered in this survey may affect broadband and advanced technologies, they also impact commission jurisdiction over traditional basic and non-basic telephone services. The full text of all the legislation may be accessed at the following page: <http://www.nrri.ohio-state.edu/programs/markets/dereg-legislation.html>.

- **Alabama:** Deregulates service except for basic service. Basic service allows for limited automatic price increases. Provisions become effective 18 months from passage.
 - **Florida:** Exempts non-basic service and advanced technologies (broadband, wireless, VoIP) from commission jurisdiction.
 - **Georgia:** Establishes that advanced technologies (broadband, wireless and VoIP) and any facilities used to provide such services are exempt from any regulation, except for interconnection agreement authority. Broadband and VoIP are defined broadly enough that the terms could encompass traditional services. Commission orders on DSL over UNE-P voided in 2006. Protects access charge authority. The bill did not pass out of committee and, under a separate resolution. A study committee was set up to examine the issues.
 - **Idaho:** Deregulates after a three-year transition period per company,
- although the commission may extend this period by up to two years if it is in the public interest. During the transition, rates are capped, but may increase \$1.75 per month, per line. Commission retains non-economic regulatory authority relating only to basic service to all companies providing such service. Filing of tariffs would be voluntary.
- **Illinois:** Deregulates most service providers under a presumption of the existence of competition. Non-competitive providers remain regulated, except for providers with fewer than 35,000 customers, which would be deregulated unless a complaint is filed by 10 percent of the provider's customers or a carrier who is a customer of the local provider. Rural ILECs with an exemption under sec. 251(f) of the Act would remain regulated unless they could prove the existence of competition. Commission would not have jurisdiction over non-competitive services if they are bundled with competitive services and also provided on a stand-alone basis. Service quality standards would apply only to basic service. Requires ILECs to provide advanced services to 80 percent of its customers, subject to a commission waiver. Rates for basic service would be frozen for three years. Bill would take effect July 1, 2005.
 - **Indiana:** Commission would cease oversight of non-basic services on June 30, 2007, and would cease oversight of pricing, terms, and conditions of basic service on June 30, 2010. Filing of tariffs would be voluntary. Commission may not impose any more stringent requirements on basic service than are already in effect, and basic service quality requirements must apply to all providers. Commission must establish one reasonable price on UNE, resale of services, and interconnection in accordance with the Act. Retains commission authority over interconnection disputes. Bill would take effect July 1, 2005.

- **Iowa:** Deregulates except for basic service on July 1, 2005; basic service deregulated after July 1, 2008, although the commission may extend its authority for two more years if it is in the public interest. In the interim, basic service rates would be capped, but allowed to increase by annual increments (\$1 for residential, \$2 for business) until 2008. Commission retains authority to resolve antitrust disputes among carriers.
- **Kansas:** Price deregulation of packaged or bundled services and any new service offered after Aug. 1, 2005. Deregulation includes residential and single-line business services if customers are receiving bundled services that are available individually. Remaining price caps annually adjusted for the telephone component of the Consumer Price Index plus any commission-approved cost. Any new service after Aug. 1, 2005 is deregulated. Price deregulation will be extended to all residential and business services in any exchange area where carrier demonstrates at least one carrier is providing basic service. Bill preserves commission authority to modify contributions to universal service fund.
- **Missouri:** Changes the standards by which services are deemed competitive: (i.e., if there are two non-affiliated providers in addition to the incumbent providing basic local service to both business and residential customers; VoIP may count as a local service provider, but only one such provider may be wireless). Commission may review services classified as competitive at least every two years or if the ILEC raises rates. Establishes that any rate that does not exceed the price cap shall be deemed just and reasonable. Allows customer-specific pricing for businesses. Allows use of promotions for all customers. The bill would take effect Aug. 28, 2005.
- **Montana:** Removes regulatory oversight for all services except primary lines for residential and business customers. The provisions would be effective upon enactment.
- **New Mexico:** Companies may provide price lists for non-basic service for decreases in rates. Increases for non-basic rates, as well as all rates for basic residential and business, would be set according to ILEC's alternative-form-of-regulation plan.
- **North Dakota:** Maintains the current residential cap of \$18 for a primary residential line, but removes the price cap for business lines. Intrastate access charges continue to be regulated by the commission. Most telecommunications services (including business lines upon passage of the legislation) are classified as "nonessential," which means there is no ongoing economic regulation, but general telecommunications statutes (such as nondiscrimination) still apply and the commission could hear complaints under the statutes. Additionally, the commission could still hear price complaints on any telecommunication service, essential or nonessential. Two other recent bills that also affect commission authority have signed into law. Senate Bill 2091, which was introduced by the commission, detariffs all telecommunications services except essential services. House Bill 1156, was introduced by the commission and streamlines entry regulation. It ends the certificate of public convenience and necessity for all carriers except ILECs and replaces it with a registration form that carriers will receive with no commission approval needed. However, the form can be revoked for failure to conform to state laws or commission rules or orders.
- **Oregon:** Allows the commission to exempt from regulation, in whole or in part, services which the commission deems to be competitive. In determining whether competition exists, the commission is directed to consider the extent to which services are available from functionally equivalent alternative providers, as well as existing economic or

regulatory barriers to entry. The commission may require utilities to file price lists for nonessential services or for essential services in area deemed to be competitive by the commission. The commission may re-regulate a service previously deemed competitive after notice and hearing.

- **Pennsylvania:** Allows an LEC to declare a service competitive (i.e., not subject to rate regulation), but allows third parties to petition the commission to reclassify the service as noncompetitive and therefore subject to a just and reasonable rate set by the commission. LECs may also petition the commission for a competitive classification.
- **South Carolina:** Deregulates all telephone service. The bill would take effect July 1, 2005.
- **Tennessee:** Removes regulation of the retail offering of bundled products or services. Authorizes providers to offer promotional incentives for periods of up to 180 days and to charge different prices to different consumers so long as such providers do not discriminate solely on the basis of race, religion or ethnicity. The commission may not impose reporting or accounting requirements that exceed or differ in kind from the FCC's requirements. The bill would take effect July 1, 2005.
- **Texas:** Deregulates all areas by Aug. 1, 2007 except where commission determines area should remain regulated. ILEC rates capped at 2005 levels. PUC may reregulate if necessary, and small companies may elect to remain regulated. Commission retains authority to adjust universal service funds, but deregulated carriers may only receive lifeline services funding. Deregulated companies exchange certificate of convenience and necessity for operating certificate. Requires ILECs to reduce access charges, subject to commission review. Establishes extensive wholesale code of conduct to be enforced by commission. Establishes legislative

committee to conduct joint oversight with commission of competitiveness issues.

- **Utah:** Effective May 2, 2005, removes residential rate cap in competitive exchanges, although ILECs serving fewer than 30,000 customers must petition for deregulation. ILEC basic service rates capped at 2004 rates (except as provided by the commission) until a commission review of the presence of competition in the service area. Commission allowed to intervene if it determines that competition has not developed or is otherwise in the public interest.
- **Vermont:** Removes most regulation of carriers that serve fewer than ten percent of subscriber lines statewide and has been designated an eligible carrier in a service area where a competitive eligible carrier has also been designated.

Table 2, below, provides a snapshot of the impact of the legislation in the 19 active states across the general functional areas described above.

Table 2: Does Telecommunications Deregulation Legislation Limit Commission Authority?

| State | Universal Service | Setting Retail Rates | Regulation of Advanced Technologies | Maintaining Tariffs | Consumer Protection and Education | Retail Service Quality | Carrier Certification | Promoting Competition | Access Charges |
|----------------|-------------------|----------------------|-------------------------------------|---------------------|-----------------------------------|------------------------|-----------------------|-----------------------|----------------|
| Alabama | No | Yes | Yes | Yes | No | Yes | No | Yes | No |
| Florida | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Georgia | * | * | Yes | * | * | * | Yes | Yes | No |
| Idaho | No | Yes | Yes | No | No | No | No | No | No |
| Illinois | No | Yes | Yes | No | Yes | Yes | No | No | No |
| Indiana | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Iowa | No | Yes | Not addressed | No | No | No | No | No | No |
| Kansas | No | Yes | Yes | No | No | No | No | No | No |
| Missouri | No | Yes | Not addressed | No | No | No | No | No | No |
| Montana | No | Yes | Not addressed | Yes | Yes | Yes | Yes | Yes | No |
| New Mexico | No | Yes | Not addressed | No | No | No | No | No | No |
| North Dakota | No | Yes | Not addressed | No | No | No | No | No | No |
| Oregon | No | Yes | Yes | No | No | No | No | No | No |
| Pennsylvania | No | Yes | Not addressed | Yes | No | No | No | No | No |
| South Carolina | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Tennessee | No | Yes | Not addressed | Yes | Yes | Yes | Yes | No | No |
| Texas | No | Yes | Not addressed | Yes | No | No | No | Yes: | No |
| Utah | No | Yes | Not addressed | No | No | No | No | No | No |
| Vermont | No | Yes | Not addressed | Yes | No | No | Yes | Yes | No |

Source: Author's construct
* possible indirect impact.

Deregulation does not imply no regulation.

CONCLUSIONS

The advent of competition in telecommunications markets, especially in local telecommunications, has changed the way public utility commissions regulate the industry. And there are pressures to limit state commission jurisdiction or deregulate the industry. State commissions have many functions, many of which go well beyond traditional economic regulation of retail prices. Deregulation does not imply no regulation. The telecommunications network is part of the nation's essential infrastructure. Even as they give up control of most retail rates, state commissions serve critical functions such as protecting consumers, promoting

universal service, ensuring adequate quality of service, enabling competitive entry and encouraging deployment of advanced technologies. Legislative proposals to deregulate competitive sectors of telecommunications may cripple commissions' ability to carry out necessary functions that protect consumers or ensure that markets remain open to sustainable competitive entry. Though some functions might be shifted to other agencies, the technical expertise, ongoing relationship with the industry and consumers, and fact finding and rule making abilities of public utility commission give them advantages in carrying out these functions.

Technical expertise, ongoing relationships with industry and consumers and established capabilities make state regulatory commissions the cost-effective agencies for carrying out continuing regulatory functions.

Notes

¹ See 47 U.S.C. § 332 (c)(3)(A) and (B).

² In its order denying a petition by the California PUC (CPUC) for authority to regulate intrastate cellular rates, the Federal Communications Commission (FCC) stated:

...although the CPUC may not prescribe, set, or fix rates in the future because it has lost authority to regulate “the rates charged” for CMRS [Commercial Mobile Radio Services], it does not follow that its complaint authority under state law is entirely circumscribed. matters might arise under complaint procedures that relate to “customer billing information and practices and billing disputes and other consumer matters.” We view the statutory “other terms and conditions” language as sufficiently flexible to permit the CPUC to continue to conduct proceedings on complaints concerning such matters, to the extent that state law provides for such proceedings. ... the CPUC retains whatever authority it possesses under state law to monitor the structure, conduct, and performance of CMRS providers in that state. [notes omitted]

See FCC 95-195, Report and Order in PR Docket No. 94-105, *In the Matter of Petition of the People of the State of California and the Public Utilities Commission of the State of California To Retain Regulatory Authority over Intrastate Cellular Service Rates* (released May 19, 1995) at ¶¶ 145-146 Available at <http://www.fcc.gov/Bureaus/Wireless/Orders/1995/fcc95195.txt>. The FCC made equivalent statements in Orders denying petitions by the Arizona, Connecticut, Hawaii, Louisiana, New York, and Ohio commissions for authority over intrastate cellular rates. In 1996 few states were regulating wireless rates. See *Utility Policy in the United States and Canada: 1995-1996 Compilation* (Washington, D.C.: The National Association of Regulatory Utility Commissioners, December 1996), Table 90, p. 213.

³ See 47 U.S.C. § 160.

⁴ As of June 30, 2004, CLECs served 17.8 percent of wireline connections nationally (15 percent of residential and small business lines and 25 percent of large business lines). See *Local Telephone Competition: Status as of June 30, 2004*, FCC, December 2004. Available at <http://www.fcc.gov/Bureaus/Common Carrier/Reports/FCC-State Link/IAD/lcom1204.pdf>.

⁵ Until passage of the Telecommunications Act of 1996 (the Act), entry, especially in local telecommunication markets, was also strictly controlled. In most jurisdictions, only the holder of an exclusive monopoly franchise could offer switched local access telecommunications service. The Act eliminated most exclusive franchises and opened local exchange markets to competitive entry, although some rural exemptions from the competitive provisions were allowed [see 47 U.S.C. § 251(f)].

⁶ See Ed Rosenberg, Chang Hee Lee, and Lilia Pérez-Chavolla, *State Universal Service Funding Mechanisms: Results of the NRRI's 2001-2002 Survey*, (Columbus, Ohio: The National Regulatory Research Institute, June 2002) <http://www.nrri.ohio-state.edu/phpss113/search.php?focus=02-10&select=Publications>.

⁷ See 47 U.S.C. § 254 (b)(3).

⁸ See 47 U.S.C. § 254 (b)(5).

⁹ For data illustrating the effect of the Lifeline Program, see Alexander Belinfante, *Telephone Penetration by Income by State (Data Through March 2004)*, FCC, Wireline Competition Bureau, Industry Analysis Division, March 2005. Available at <http://www.fcc.gov/Bureaus/Common Carrier/Reports/FCC-State Link/IAD/pntris04.pdf>.

¹⁰ See 47 U.S.C. § 214(e)(2).

¹¹ See FCC 04-46, Report and Order in CC Docket 96-45 *In the Matter of Federal-State Joint Board on Universal Service* (rel. March 17, 2005) http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-46A1.pdf.

¹² For information regarding state service quality rules, see Lilia Pérez-Chavolla, *Survey of State Retail Telephone Quality of Service Definitions and Measurement Requirements for Selected Categories of Service: Organized by Service Category* (Columbus, Ohio: The National Regulatory Research Institute, May 2004), available at <http://www.nrri.ohio-state.edu/phpss113/search.php?focus=04-08s&select=Publications>; Lilia Pérez-Chavolla, *Survey of State Retail Telephone Quality of Service Regulations for Selected Categories of Service: Metrics, Penalties and Reports* (Columbus, Ohio: The National Regulatory Research Institute, May 2004), available at <http://www.nrri.ohio-state.edu/phpss113/search.php?focus=04-09s&select=Publications>; and Lilia Pérez-Chavolla, *Survey of State Retail Telephone Quality of Service Definitions and Measurement Requirements for Selected Categories of Service: Organized by State* (Columbus, Ohio: The National Regulatory Research Institute, May 2004), available at <http://www.nrri.ohio-state.edu/phpss113/search.php?focus=04-10s&select=Publications>.

¹³ See 47 U.S.C. § 252(e)(1).

¹⁴ See 47 U.S.C. § 252(e)(2)(A)(i).

¹⁵ See 47 U.S.C. § 251(f).

¹⁶ The FCC's Triennial Review Remand Order is a recent example of an FCC Order that will result in implementation issues at the state level. See FCC 04-290, Order on Remand in WC Docket No. 04-313 *In the Matter of Unbundled Access to Network Elements* and CC Docket No. 01-338 *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers* (released Feb. 4, 2005) http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-290A1.pdf.

¹⁷ See 47 U.S.C. § 251(e)(1).

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This report was prepared by the National Regulatory Research Institute (NRRI) with funding provided by the member commissions of the National Association of Regulatory Utility Commissioners (NARUC). The views and opinions of the authors do not necessarily express or reflect the views, opinions or policies of the NRRI, NARUC or NARUC member commissions.