The National Regulatory Research Institute

Breaking Away from Franchises and Rate Cases: A Perspective on the Evolution of State Telecommunications Policy

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Proposals for telecommunications reform at the state and federal level call for timely, objective analysis of many issues. This paper is one in a series of focused NRRI analyses of high priority issues in telecommunications from a state regulatory and public policy perspective. The paper was prepared by NRRI with funding provided by participating member commissions of the National Association of Regulatory Utility Commissioners (NARUC). The views and opinions of the authors do not necessarily state or reflect the views, opinions, or policies of the NRRI, the NARUC, or any NARUC member commission.

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"Revolution" must be the second most overused term in telecommunications today, right behind the "information superhighway." A recent article in the *New York Times* noted yet another business alliance that promises to revolutionize what consumers receive from telephones, cable television and computers. While not disputing the extraordinary technological changes afoot in telephony, the *Times* remarked that long-term change comes slowly, chaotically, and unpredictably. The article called the information revolution "oversold" and took the industry to task for its perpetual hype, saying, "`revolution' has become a marketing buzzword."

State regulatory commissions may sometimes feel like the beleaguered aristocracy in the information revolution. They are accused of barricading themselves behind outmoded laws prohibiting competition and antique procedures for oversight of monopoly local exchange carriers.² A look at what the commissions are actually doing yields quite a different story. The states are actively encouraging change in industry structure to take advantage of the promise of new technology. A recent NARUC/NRRI survey of the state regulatory commissions on treatment of competition and use of alternative regulation found that:

- Since divestiture states have steadily opened up new markets to competition as the industry has found those markets ripe. Today the states are just beginning to see requests to compete against the local exchange companies in switched local exchange. Commissions are adjusting their policies to meet that development: thirteen states have affirmatively allowed competition in switched local service; in six of those states competition in local service has begun.
- Alternatives to traditional ratebase, rate-of-return regulation are becoming the norm rather than the exception. The alternative regulation being chosen by states

¹ Edmund L. Andrews, "Changing the Wiring Takes Time," *New York Times*, "Week in Review," Oct. 30, 1994, 1.

² M. J. Richter, "The Best Way for States to Regulate Telephones: Don't," *Governing*, December 1993, 56.

subjects ever fewer rates and ever smaller portions of utility revenues to commission scrutiny.

 Where traditional regulation still exists, it has often been limited and softened by deregulation of various services (shared tenant services, for example) and flexible pricing for competitive services.

In other words, evolution, not revolution, is what is happening in the communications industry, and the states are keeping pace, adapting regulation to new developments.

Bits and pieces of deregulation, pricing flexibility, price caps, revenue sharing and rate freezes abound. Every state has tried different combinations and applied different labels. It is easy to become lost in a "concatenation of ephemeralities." Innovation is a process of creating something new, but it may be difficult to define what the new product or process is while it is being invented. One possible approach might begin by noting that a key element of the definition of innovation is that it is a departure from past practice. Past practice is quite easy to define for state regulatory commissions: it is a rate case process for franchised monopoly carriers. Thus, an organizing principle for understanding innovation in the states can be the degree to which a state is leaving behind the principle of an exclusive franchise or the degree to which it no longer uses the rate case process. This does not mean that a state is doing "better" or "worse" in some way by being "ahead" or "behind" in the degree to which it has broken away from basic past practices. Commissions take actions to meet the specific needs of their states, which differ for a variety of reasons. The approach taken here is a way of sorting and describing what is happening to elucidate an underlying theme.

This paper grew out of request by the Regulatory Methodologies Subcommittee of the NARUC Staff Subcommittee on Communications in May of 1994 for the NRRI to conduct a survey on competition and alternative regulation in the states. Forty-nine commissions

³ Alfred Kahn, quoted in Thomas K. McCraw, *Prophets of Regulation*, (Cambridge, Mass.: Belknap Press, 1984).

participated. Information from the survey was supplemented by other sources at the NRRI, NARUC, and the trade press.⁴

Surveys of the states on trends in telecommunications regulation are numerous. NARUC itself has done excellent work in documenting state progress.⁵ The NRRI did not want to duplicate other work and present another snapshot of the status of regulation. Instead, we wanted to form the basis of a clearer understanding of the trends in state adaptation to the vast technological and industry changes that are underway.

This report documents commission encouragement of competition in various telecommunications markets and the decline of traditional ratebase, rate-of-return regulation. It offers a typology of alternative regulation in the states. And it looks briefly at what the states are doing on quality of service for telecommunications. New attention to service quality may mark the beginnings of a new framework for public oversight of the communications business, one focused on quality and equity issues rather than exhaustive economic regulation. A companion piece elaborates on current state treatment of competition in the local exchange market and state consideration of alternative regulation. The companion paper tallies state actions in several other areas, like colocation and equal access for intraLATA toll, and briefly documents state actions in distance learning, telemedicine and other uses of advanced telecommunications technologies for public purposes.⁶

⁴ An earlier version of the paper was presented to the Staff Subcommittee on Communications at the NARUC Annual Convention in Reno, Nevada, Nov. 12, 1994.

⁵ See the *NARUC Report on the Status of Competition in Intrastate Telecommunications*, September 1994, for the latest NARUC compilation of state activities. The report is available from NARUC for \$40.

⁶ Vivian Witkind Davis, Nancy Zearfoss, and Catherine E. Reed, *Aspects of Telecommunications Reform:* Results of a Survey of State Regulatory Commissions (Columbus, OH: NRRI, 1995).

Breaking Away from the Exclusive Franchise

Over the last decade, state commissions have overseen a steady stream of new entrants in telecommunications markets. The industry's ability to support competition has been an evolutionary process marked by spatial diffusion from the creamiest markets with both higher usage and deeper pockets to those with the next greatest opportunity for profit and on down. Steadily reduced costs for fiber optic cable have kept the diffusion going from interLATA, interexchange traffic to special access for large customers to switched transport. Public policy, which has accepted the proposition that competition is preferable to regulation if it can be sustained, has supported and facilitated the evolution of competition. As the capability of the industry to compete has evolved, so has commission support for market-governed telecomunications services.

It is inevitable that competition will open up at the level of the local loop and for switched local telephone service. This has just begun to happen in some places. Table 1 shows the status of commission treatment of competition that has gotten progressively closer to the local loop until it is beginning to crack that last bastion of monopoly. The table tells a straightforward story: competition has become widely accepted among the states for interLATA service, intraLATA, pay phones, and to a somewhat lesser extent, private lines. Switched access and local exchange service are beginning to follow. Eighteen commissions allow competition for switched access but competition actually exists only in seven jurisdictions. For switched local service, thirteen commissions allow competition; and in only six does competition exist. The survey employed restrictive difinitions. "Allows" means either of the following: (1) state law permits competition or (2) the commission has acted to permit competition. A state is not in the "allows" box if competition is prohibited by law or

⁷ For a depiction of this process see Frank J. Gumper, *The Evolution of Competition*, Telesector Resources Group (undated mimeo).

⁸ See Phyllis Bernt, Hans Kruse and David Landsbergen, *The Impact of Alternative Technologies on Universal Service and Competition in the Local Loop* (Columbus, OH: NRRI, 1992) for an introduction to issues related to local loop competition.

TABLE 1

TREATMENT AND STATUS OF COMPETITION (as of November 1994)

Services	Commission Has Allowed Competition	Competition Exists
InterLATA ^a	AL, AZ, AR, CA, CO, CT, FL, GA, ID, IL, IN, IA, KS, KY, LA, MD, MA, MI, MN, MS, MO, MT, NE, NV, NJ, NY, NC, ND, OH, OK, OR, PA, TN, TX, VA, WA, WV, WI, WY	AL, AZ, AR, CO, CA, DC, FL, GA, ID, IL, IN, IA, KS, KY, LA, MD, MA, MI, MN, MS, MO, NE, NV, NJ, NY, NC, ND, OH, OK, OR, PA, TN, TX, VA, WA, WV, WI, WY
IntraLATA toll	AL, AK, CA, CO, CT, DE, FL, GA, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, SD, TX, UT, VT, WA, WV, WI, WY	AL, AR, AK, CA, CO, CT, DE, FL, GA, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, ND, OH, OK, OR, PA, SD, TX, UT, VT, WA, WV, WI, WY
Payphones	AL, AZ, AR, CA, CO, CT, DE, DC, FL, GA, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OR, PA, RI, TN, TX, UT, VT, VA, WA, WV, WI, WY	AL, AZ, AR, CA, CO, DE, DC, FL, GA, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OR, PA, RI, TN, TX, UT, VT, VA, WA, WV, WI, WY
Special access	AL, AZ, AR, CA, CO, CT, DE, FL, HI, ID, IL, IN, IA, KS, MD, MA, MI, MO, MT, NE, NV, NH, NJ, NM, NY, OH, OR, PA, RI, SD, TX, VT, VA, WA, WI, WY	AL, AZ, AK, CA, CO, CT, DE, DC, FL, HI, IL, IN, KS, MD, MA, MI, MO, NM, NE, NV, NJ, NY, OH, OR, PA, RI, SD, TX, VT, VA, WI, WY
Private line	AL, AZ, AR, CA, CO, CT, DE, FL, HI, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MO, MT, NE, NH, NJ, NM, NY, OH, OK, OR, PA, SD, TX, VT, WA, WI, WY	AL, AK, AZ, CA, CO, CT, DE, DC, FL, HI, IL, IN, KS, KY, ME, MD, MA, MI, MN, MO, NE, NM, NY, OH, OK, OR, PA, SD, TX, VT, VA, WI, WY
Switched access	AR, CT, DE, ID, IL, IA, MD, MA, MI, MT, NM, NY, OR, PA, SD, WA, WI	DE, IL, MA, NY, OR, WA, WI
Switched local exchange service	CT, IL, IA, MD, MA, MI, MT, NM, NY, OR, PA, WA, WI	IL, IA, MA, NY, WA, WI

^a Not applicable to single LATA states.

SOURCE: NRRI Survey on Alternative Regulation and Competition, November 1994.

commission order or the commission is undecided about how to treat competition. "Exists" means that one or more providers other than a regulated local exchange company are providing the service, whether or not the competition was affirmatively approved by the commission. Thus, it is possible for competition to have materialized without a commission order. "Switched local exchange service" means facilities-based service to residential as well as business customers, a definition which excludes states that allow some local competition. In Idaho, for example, competition is allowed for business service with more than five lines.

Breaking Away from the Rate Case

Ratebase, rate-of-return regulation has been the norm in telecommunications regulation, as in other utility sectors, for most of this century. Under this traditional form of regulation, a utility applies to the commission for changes in rates. Through the mechanism of a rate case the commission determines a revenue requirement. The commission then determines the rates necessary to meet the revenue requirement. This two-step process is the heart of commission regulation of monopoly utility companies. The many changes commissions have been making in regulation of local exchange carriers move away from the highly routinized, two-step regulatory process that served the public well through most of the twentieth century and is now being overtaken by change. Commissions are gradually moving away from determination of a revenue requirement and setting rates and towards regulatory regimes characterized by pricing limits. The ratebase, rate-of-return form of regulation has been such a clearcut, consistent regulatory mechanism across the states. Evolution is eroding that bedrock process.

Exempting Companies from Traditional Regulation

One way in which traditional regulation is being reduced is in its applicability to whole companies. Several states have chosen to continue to impose traditional regulation based on characteristics of companies or to leave it to companies, under certain restrictions, to decide whether to apply for alternative regulation. Size of company has frequently been singled out as a

variable determining the type of regulation. Table 2 shows states that have used company size to distinguish between companies subject to traditional regulation and those that are deregulated or subject to alternative forms of regulation. The survey did not ask specifically about the application of regulation to cooperatives, although a couple of states volunteered that cooperatives are exempt from ratebase regulation. It is reasonable to suspect that a number of states exempt cooperatives because they are run by their members and not able to exert the monopolistic power at a distance that incorporated entities may. Exemptions for companies are most extensive in Nebraska. In that state the absence of rate cases is the norm. But there are safety valves that allow the commission to step in.

In some states only larger companies are eligible for alternative regulation. In Minnesota companies with 30,000 or more access lines are eligible. Four Minnesota companies are eligible, but only US West has chosen to ask for alternative regulation.

Exempting Services from Traditional Regulation

Deregulating whole companies or differentiating among companies for eligibility for regulation is one direction a commission may take towards reducing the applicability of traditional regulation. More commonly, the erosion of ratebase, rate-of-return regulation has been for services within a company. Table 3 shows the results of the NRRI survey for three types of movement away from traditional regulation. The table suggests a rough progression over time, with the earlier type of plan often incorporated into the later one. The more recent alternative regulation plans also tend to be more radical departures from traditional, ratebase, rate-of-return regulation. Figure 1 is a map based on Table 3.

TELECOMMUNICATIONS REGULATION AND COMPANY SIZE

(as of November 1994)

States Where Small Companies Are Exempt from Traditional Regulation	Description of Exemption	
Alaska	Telephone utilities that gross under \$50,000 annually unless 25 percent of subscribers petition for regulation.	
Iowa	Companies with under 15,000 subscribers are not regulated.	
Indiana	Companies with less than 6,000 access lines can petition for removal from jurisdiction for approval of rates, charges, and financing.	
Montana	Companies with less than 5,000 subscribers can raise rates upon proper notice to subscriber. Commission may review.	
Oklahoma	Companies with less than 15,000 lines can increase local rates up to \$2 per month annually. If 15 percent of customers protest, commission reviews.	
South Dakota	Companies with less than 10,000 access lines are not regulated, except for access.	
States where type of alternative regulation depends on size of company	Description of Exemption	
Nebraska	Companies with less than 5,000 access lines can raise their rates 30 percent without commission review; over 5,000 lines, 10 percent.	
North Dakota	Companies under 3,000 access lines are not regulated unless they choose to be (and none have); noncooperatives with more than 3,000 lines may choose price caps.	
Oregon	Companies with less than 15,000 lines can increase rates without commission approval. If 10 percent of customers protest, commission reviews. Companies with 15,000 lines or more may apply for a form of alternative regulation.	
Pennsylvania	Local exchange companies with less than 50,000 access lines can seek streamlined regulation, inclusive of alternative forms of regulation.	
Wisconsin	Under 1994 law all telephone companies can elect price regulation or propose alternative regulatory plans. Medium-sized and small telephone companies may propose specific price regulation plans with qualifications and ability to opt out.	
States where only large companies are eligible for alternative regulation	Description	
Minnesota	Companies with 30,000 or more access lines are eligible for alternative regulation.	
Ohio	Companies larger than 15,000 lines may choose to apply for alternative regulation.	
Tennessee	Three largest local exchange companies are eligible for profit sharing.	

YEAR MOST RECENT ALTERNATIVE REGULATION PLAN WENT INTO EFFECT FOR BELL OPERATING COMPANIES AND OTHER LARGE LOCAL EXCHANGE COMPANIES

(as of November 1994)

Year	Incentives: Revenue/ Profit Sharing Only or Other Broad Incentives	Formal Distinction Between Basic and Competitive Services	Price Caps
1985		Utah	
1986	Alabama		
1987	Nebraska		
1988	Florida Kentucky	Maryland South Dakota West Virginia	
1989		Idaho	California North Dakota
1990	Minnesota Mississippi Kansas ^a	Tennessee Texas	
1991		Nevada	Michigan
1992	Georgia Louisiana South Carolina		New Jersey Oregon Rhode Island
1993		Colorado District of Columbia Montana Virginia ^b Washington	
1994	Ohio ^c	Indiana	Delaware Illinois New York Pennsylvania Wisconsin

^a Alternative regulation plans with rate freeze, infrastructure modernization agreement, some pricing flexibility and no sharing.

Bold type means that the state has revenue or profit sharing, whether alone or combined with another type of alternative regulation.

Italics means that the state will no longer compute a revenue requirement for the Bell operating company.

^b A price cap plan was scheduled to go into effect on Jan. 1, 1995.

Profit sharing plan for Cincinnati Bell. Ameritech-Ohio price caps plan went into effect Jan. 9, 1995.

figure one map goes here

Commissions in fifteen states still based their oversight of local exchange companies on ratebase, rate-of-return regulation without major change at the time of the survey. Nine commissions have revenue or profit sharing plans without another major form of alternative regulation. Under revenue sharing or profit sharing the intrastate revenue of the local exchange companies is still compared to the revenue requirement for the purpose of determining whether the company is over or underearning, and the company's rates are still subject to regulation. It is thus not much of a change from traditional regulation. A real break from traditional regulation occurs when a commission makes a formal distinction between basic services and competitive ones. Commissions have frequently allowed flexible pricing on an ad hoc basis. What has only recently begun to occur is a systematic differentiation between services that will be deemed competitive and those that will be continue to be protected. The competitive services not only are no longer subject to rate setting, but their revenues are not included in calculations of revenue requirement. We count fourteen commissions as having made that seminal distinction between basic and nonbasic services. Eleven more commissions are committed to indexing of prices, or price caps. Eight of those incorporate a distinction between basic and nonbasic services but maintain the ability to calculate a revenue requirement for basic services. In three price-cap states and Indiana a revenue requirement will no longer be calculated: ratebase, rate-of-return regulation has been eliminated for the Bell operating companies in those states. Table 3 and the accompanying map are snapshots at one point in time and do not show alternative regulation that is about to be put in place or being considered.⁹

The Softening of Traditional Regulation

Some states have not deviated significantly from ratebase, rate-of-return regulation and are not shown in Table 3. But much is going on in those other jurisdictions. The table understates the degree of experimentation. A breakdown of actions in the jurisdictions that are not included in Table 3, shows that every one has, at the very least, actively investigated avenues for moving away from traditional regulation: alternative regulation is under consideration in ten

⁹ Further information on consideration of alternative regulation may be found in *Aspects of Telecommunications Reform: Results of a Survey of State Regulatory Commissions.*

states (Arizona, Arkansas, Connecticut, Hawaii, Iowa, Maine, Massachusetts, New Hampshire, New Mexico, and Wyoming). Several of these states have implemented innovative plans for allowing local competition and thus are among the most active in adapting to change in telecommunications markets. They simply have not yet approved particular pricing plans for the regulated local exchange companies.

Even if these states were not actively considering alternative regulation, much is likely to have been accomplished in adapting to competition. Many commissions have simplified procedures for smaller companies. Customer premises equipment and inside wire were long ago deregulated. Most states do not regulate Yellow Pages. Voice mail and/or billing and collections may be deregulated as well. Voice mail has caught on in popularity recently and many commissions have never regulated it, although they did not take formal action to reach that decision.

There also are states that either formally or informally have instituted what amounts to a "social contract." In Maine, through June 1992, New England Telephone agreed to make infrastructure improvements and not to raise rates. The company was allowed to price new services with some flexibility. Other states may not have had a rate case for many years, which amounts to a sort of nonregulation. Thus, a list of commissions adhering to traditional regulation masks considerable erosion of regulation at the edges and, in some cases, even some hollowness at the core.

Incentive Regulation: Revenue and Profit Sharing

As an incentive for company efficiency, twenty-two commissions have instituted profit or revenue sharing plans (Table 4). Fourteen profit-sharing plans and eight revenue-sharing plans were in effect at the time of the survey. Most commonly (for fifteen states) both upper and lower limits were applied to the rate of return or return on equity. In Oregon comparisons are not made directly with earnings but with a target revenue per access line. If the revenue per access line is greater than the designated target, the excess is shared 50/50 with ratepayers.

By the time of the survey revenues had actually been shared in all seven of the revenue sharing states but in only five of the profit-sharing states. California, Idaho, Kentucky, Louisiana,

Mississippi and Tennessee said they had adjustment mechanisms for earnings that fell below a certain level.

States can and do use revenue or profit sharing together with other alternatives to traditional regulation. Revenue or profit sharing by itself is probably not as significant an innovation as various degrees of pricing regulation. Or at least it does not represent an adaptation to competition the way the other innovations in regulatory practice do. The evidence suggests that it is in many cases an older innovation that represents a minor modification in regulatory practice.

Competitive Pricing

Twenty-eight jurisdictions have moved to competitive pricing, with or without price caps, in the process making a formal distinction between basic services and services that are at least partly competitive. Some of the commissions may not have defined basic services precisely, but have made a de facto definition through a formula for establishing which services are competitive. Table 5 identifies states which have established a systematic method for defining competitive services, as distinct from basic ones. The table recognizes distinctions that are on the books, whether in state law or by commission order. This does not necessarily mean that many services have been deemed competitive, only that the mechanism exists for naming them as such.

Price Caps

Of the twenty-eight commissions that have moved to competitive pricing of varying degrees, eleven have price caps. The defining feature of price caps is the ability of the local exchange company to change prices according to a formula reflecting changes in costs, without the immediate approval of the commission. States have varied in the complexity of the formulas with which they attempt to capture price changes. Price caps do not represent the complete elimination of traditional regulation, however. Price-cap plans have sometimes been described as being a new form of ratebase, rate-of-return regulation, or "traditional"

COMMISSION USE OF SHARING MECHANISMS FOR BELL OPERATING COMPANIES

(as of November 1994: plans in existence or that have expired)

Commission	Type of Sharing	Limits	Has Sharing Occurred?
Alabama	Profits	Upper and lower	Yes
California ^a	Profits	Upper and lower	Yes
Colorado ^a	Profits	Upper only	No
District of Columbia ^a	Profits	Upper and lower	No
Florida	Profits	Upper only	No
Georgia	Revenues	Upper only	No
Idaho	Revenues	Upper and lower ^b	Yes
Kentucky	Revenues	Upper and lower	Yes
Louisiana	Revenues	Upper and lower	Yes
Maryland ^a	Profits	Upper and lower	No
Minnesota	Profits	Upper and lower	Yes
Mississippi	Revenues	Upper and lower	Yes
Nevada	Revenues	Lower	Yes
New Jersey ^a	Profits	Upper and lower	No
New Mexico (1993)	Profits	Upper and lower	Yes
Ohio	Profits	Upper and lower	No
Oregon ^a	Revenues	Upper and lower	Yes
Rhode Island ^a	Profits	Upper only	No
Tennessee ^a	Profits	Upper and lower	Yes
Texas ^a	Profits	Upper and lower	Yes
Virginia ^a	Profits	Upper and lower	No
Washington ^a	Profits	Upper and lower	Yes

^a Commission also has basic/nonbasic service classification or price caps.

Floor is historic revenue per access line. Ceiling is projected revenue. Excess is shared.

STATES WITH DISTINCTION BETWEEN BASIC AND COMPETITIVE SERVICES^a

(as of November 1994)

Commission	Basis for Distinction
California	Commission determines competitiveness.
Colorado	Number of competitors, extent of barriers to entry and exit, and others.
Delaware	Statute: no specific test (Bell Atlantic made list).
District of Columbia	(1) The service is nonessential; (2) there are functionally equivalent alternatives; (3) own-price elasticity is high; and (4) Herfindahl-Hirshman Index is below 1800.
Florida	No specific test.
Idaho	All services are considered competitve except for residential and business with five lines or less.
Illinois	Statutory criterion: if more than one alternative provider is available, service can be classified as competitive.
Indiana	Basic local service and related services are considered those that provide voice grade access to the network and those that enhance, supplement, or depend on basic local service.
Kansas	Information not available.
Maryland	Information not available.
Michigan	Information not available.
Minnesota	Emerging competitive: service available to 20 percent of customers from another provider; effectively competitive: service available from another provider to 50 percent of customers.
Mississippi	Authority under 1992 law to deregulate if there is sufficient competition.
Missouri ^b	Statutory criterion: company must show (based on all relevant factors, to be determined by PUC) that the service is subject to sufficient competition to justify lesser degree of regulation.
Montana	(1) Number, size, and distribution of alternative providers; (2) extent to which services are available from alternative providers; (3) the ability of alternative providers to make equivalent services readily available; and (4) the impact of the proposed terms and conditions of the service on the continued availability of existing services at just and reasonable rates.

TABLE 5 - Continued

STATES WITH DISTINCTION BETWEEN BASIC AND COMPETITIVE SERVICES^a

(as of November 1994)

Commission	Basis for Distinction		
Nebraska	Statutory criterion: commission can determine if current provider is adequate; if not, can authorize additional carriers providing competitive services.		
Nevada	Competitive: long-run incremental costs; nonregulated: no subsidization.		
Oregon	Defined by administrative rule.		
North Dakota	Information not available.		
Ohio	Basic services defined as access to services and usage of the local switched network including access to long distance services.		
Pennsylvania	Indices; number of competitors in market.		
Rhode Island	Information not available.		
South Dakota	Classified by legislature, based on alternatives.		
Tennessee	Information not available.		
Texas	Information not available.		
Utah	Anticipated competition.		
Virginia	Information not available.		
Washington	Information not available.		
West Virginia	If there is comparable or substitutable service.		
Wisconsin	Statutory with no specific test. Definition will be reviewed every two years starting Jan. 1, 1996, under universal service.		
Wyoming	Information not available.		

^a These distinctions have been made but not necessarily applied as yet.

^b Alternative regulation plan not currently in effect.

regulation in drag," partly because, in turning towards price caps, a revenue requirement may still be calculated for some services under some conditions.

Table 6 shows states where commissions have capped but not frozen prices. Some of the formulas are very simple but all allow some change in basic rates over time. Exogenous factors are used in the price-cap formulas for all the states identified in Table 6 except Oregon. A few states that have instituted competitive pricing also allow prices to change without commission approval when exogenous changes occur: Maryland, Montana, Nebraska, Nevada, and Tennessee are cases in point.

Freezes on local rates can be undertaken with or without relinquishing traditional regulation. Freezes are distinguished from price caps in that there is no automatic mechanism for changing the frozen rates. Table 7 shows rate freezes in effect as of July 1994. Other states may have had rate freezes which expired. Maine, for example, was under a rate freeze until 1991.

Towards New Commission Roles: The Case of Service Quality

If much of what commissions are being asked to do and much of what many of them want to do is to bow out of traditional regulation, one might well ask whether new areas of oversight might be emerging or taking on more importance. Service quality is one of those. Table 8 shows states that have adopted new standards for service quality since 1980.¹⁰

Evolution, Not Revolution

Martin Levin and Mary Bryna Sanger, social scientists who have studied successful initiatives in government, describe innovation as a process of "evolutionary tinkering" where trial and error and experiential learning result in "old stuff" being reassembled in new ways.¹¹

¹⁰ The NRRI is beginning work on a research report tentatively entitled, *State Quality of Service Policies* for an Information Age Economy, to be published sometime in 1995.

¹¹ Martin Levin and Mary Bryna Sanger, *Making Government Work: How Entrepreneurial Executives Turn Bright Ideas into Real Results* (San Francisco: Jossey-Bass, 1994), 88.

TABLE 6

COMMISSION USE OF PRICE-CAP FORMULAS FOR BELL OPERATING COMPANIES

(as of Nov. 1, 1994)

State	Inflation Index	Adjustment (percent)	Exogenous Adjustments Allowed?
California	GDP-PI	5.00	Yes
Delaware	GNP-PI	3.00	Yes
Illinois	GDP-PI	4.30	Yes
Michigan	Base rate + 1%	None	Yes
New Jersey	GNP-PI	2.00	Yes
North Dakota	GNP-PI	2.75	Yes
Oregon	GNP-PI	4.00	No
Pennsylvania	GDP-PI	2.93	Yes
Rhode Island	GNP-PI	3.00	Yes
Wisconsin	GDP-PI	3.00 +/- 2.00 penalty incentive	Information not available.

COMMISSION USE OF RATE FREEZES FOR LOCAL EXCHANGE SERVICES PROVIDED BY BELL OPERATING COMPANIES

(as of November 1994)

State Year Rate Freeze Ends		Freeze on Residential Rates?	Freeze on Business Rates?
California	1995	Yes	Yes
Colorado	1998	Yes	Yes
Delaware	1997	Yes	Yes
District of Columbia	1996	Yes	No
Florida	1994	Yes	No
Indiana	1998	Yes	Yes
Kansas	1997	Yes	Yes
Kentucky	1994	Yes	No
Maryland	1996	Yes	No
Missouri	1998	Yes	Yes
Nevada	1996	Yes	Yes
New Hampshire	1995	Yes	Yes
New Jersey	1999 residential, 1996 business	Yes	Yes
Oregon	1997	Yes	Yes
Pennsylvania	1999	yes	Yes
Tennessee	1996	Yes	Yes
Texas	1994	Yes	Yes
Washington	1994	Yes	No
West Virginia	1994	Yes	Yes
Wisconsin	1997	Yes	Yes

TABLE 8

QUALITY OF SERVICE STANDARDS (As of November 1994)

Commission	Quality of Service Standards	Year Established	Year Amended	Stringency of New Standards	Penalties/Rewards Linked to Company Service Quality?
Alabama	Yes	pre-1980	1992	More	Reward and penalize
Alaska	Yes	pre-1980	No	N.A.	N.A.
Arizona	Considering	N.A.	N.A.	N.A.	N.A.
Arkansas	Yes	c.1983	1989	Similar	Not linked
California	Yes	pre-1980	1992	More	Not linked
Colorado	Yes	pre-1980	1994	More	Reward and penalize
Connecticut	Yes	pre-1980	1985	More	Penalize
Delaware	Yes	1990	N.A.	N.A.	Not linked
District of Columbia	Yes	1994	N.A.	N.A.	Not linked
Florida	Yes	pre-1980	Yes, regularly	Similar	Penalize
Georgia	Yes	pre-1980	1989	More	Not linked
Hawaii	Yes	pre-1980	No	N.A.	N.A.
Idaho	Yes	pre-1980	No	N.A.	Not linked
Illinois	Yes	c.1984	1991	N.A.	Not linked
Indiana	Yes	pre-1980	No	N.A.	Not linked
Iowa	Yes	pre-1980	1992	Similar	Not linked
Kansas	Considering	N.A.	N.A.	N.A.	N.A.
Kentucky	Yes	pre-1980	No	N.A.	Not linked
Louisiana	Yes	1992	N.A.	N.A.	N.R.
Maine	No	N.A.	N.A.	N.A.	N.A.
Maryland	Yes	pre-1980	No	N.A.	Not linked
Massachusetts	Yes	1990	N.A.	N.A.	Not linked
Michigan	Yes	pre-1980	Yes	More	Not linked
Minnesota	Yes	pre-1980	No	N.A.	Not linked
Mississippi	Yes	N.R.	N.R.	N.R.	N.R.
Missouri	Yes	pre-1980	Yes	More	Not linked
Montana	Yes	pre-1980	1993	More	Not linked
Nebraska	Yes	pre-1980	Yes	Similar	Not linked

TABLE 8 - Continued

QUALITY OF SERVICE STANDARDS (As of November 1994)

Commission	Quality of Service Standards	Year Established	Year Amended	Stringency of New Standards	Penalties/Rewards Linked to Company Service Quality?
Nevada	Yes	1991	N.A.	N.A.	Reward and penalize
New Hampshire	Yes	pre-1980	1991	More	Not linked
New Jersey	Yes	pre-1980	1987	More	Penalize
New Mexico	Considering	N.A.	N.A.	N.A.	N.A.
New York	Yes	pre-1980	No	N.A.	Penalize
North Carolina	Yes	pre-1980	No	N.A.	Penalize
North Dakota	No	N.A.	N.A.	N.A.	N.A.
Ohio	Yes	pre-1980	Yes	More	Not linked
Oklahoma	Yes	pre-1980	1991	More	Not linked
Oregon	Yes	pre-1980	Yes	More	Not linked
Pennsylvania	Yes	pre-1980	N.R.	N.R.	Not linked
Rhode Island	Yes	pre-1980	1992	More	Penalize
South Carolina	N.R.	N.R.	N.R.	N.R.	N.R.
South Dakota	No	N.A.	N.A.	N.A.	N.A.
Tennessee	Yes	pre-1980	1984	Similar	Reward and penalize
Texas	Yes	pre-1980	1994	More	Penalize
Utah	No	N.A.	N.A.	N.A.	N.A.
Vermont	Yes ^a	1994	N.A.	N.A.	Penalize
Virginia	Yes	1993	N.A.	N.A.	Penalize
Washington	N.R.	N.R.	N.R.	N.R.	N.R.
West Virginia	Yes	pre-1980	No	N.A.	N.A.
Wisconsin	Considering	pre-1980	1991	Similar	Penalize
Wyoming	Considering	N.R.	N.A.	N.A.	Not linked

N.R. = No response.

N.A. = Not applicable.

^a Approved by Commission, company to decide whether to accept.

The concept of evolutionary tinkering was first applied to the development of molecular microbiology. The concept contradicts Thomas Kuhn's theory that science advances through broad paradigm shifts. The history of the discovery of DNA is not one of revolution but of using "old stuff," in this case principles from physics, in a new setting, the study of biology. Sanger and Levin propose that the evolutionary process demonstrated in the discovery of DNA's structure is typical of successful innovation in other endeavors. They examine 35 winners in the Ford Foundation-Kennedy School Innovations in State and Local Government awards program for support for their contention and conclude that the innovation process in the public sector is one of evolution, not revolution.

The experience of state regulatory commissions in adapting to changes in the telecommunications industry appears to fit a model of evolutionary tinkering. Most commissions by now have jimmied with the controls and incentive systems they have at hand (the "old stuff"). They have deregulated this, given pricing flexibility to that, started banded rates for something else, and combined various thises and thats into broader innovations that move them further away from exclusive franchises for utility service and a ratemaking process for regulatory control.

This report has attempted to describe what the states are doing in two important areas of developing telecommunications policy in a way that gives a thread to the story. Explaining why different states have borrowed and recombined as they have is beyond its scope. But it is interesting to speculate on the variables that come into play. Population density, concentrations of technology intensive industries, geographical features, and the strategies of the Bell operating companies and other players may all play a role.

Conclusion

State commissions are altering the regulatory methods they use, eliminating what is no longer appropriate and inventing new approaches. Two of the major issues that policy makers have addressed are how to allow new entrants where once there was an exclusive franchise and how to help the existing provider compete where once there was only a regulated monopoly. Commissions have steadily widened the areas of the telecommunications business where competition is allowed. This has occurred as needed, and there is no reason to think that the

trend will be any different for local competition. Commissions have steadily deregulated since divestiture, slowly but surely breaking away from traditional ratebase, rate-of-return regulation. This evolutionary tinkering coincides with the ability of the industry to move into new areas of competition.

That progress has been made is no reason for commissions to stop innovating. A proactive role in the pursuit of good public policy continues to be called for. Proposed federal legislation, which came close to passage in 1994, could preempt the states or force them into a lockstep, making it more difficult for commissions to craft appropriate responses to their own state's needs for economic development, protection of universal service, encouragement of competition and other public policy goals. The information presented in this report shows that commissions are actively experimenting with policy changes that meet both national and local needs of a citizenry faced with the problems and opportunities presented by profound change in telecommunications.