

Innovation and Variation in
State Regulation: Are the
States Really Acting as Labo-
ratories?

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STATE POLICY LABORATORIES

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As in earlier periods of regulatory turmoil, since the AT&T breakup state telecommunications regulators have promoted different policies and are thus acting as laboratories, at least in some respects. Based on their statutes and policy pronouncements, nearly all states seem to be aiming for similar goals, although some of these goals are vague and some are even internally contradictory. States have pursued varied approaches to achieving these goals.

The seven main goals of most states in telecommunications regulation today appear to be: (a) protecting consumers from monopoly abuse and from undesirable cross-subsidization of unregulated competitive activities; (b) promoting equity, by fostering universal service and by ensuring rural populations receive access to similar services and prices as their urban counterparts; (c) promoting competition which will, in turn, lead to greater productivity, expanded service, lower prices, and more options; (d) enhancing economic efficiency by moving prices toward costs; (e) promoting innovation and efficient, technologically advanced telecommunications and information services; (f) maintaining high service quality standards; and, in recent years, (g) creating a telecommunications infrastructure that will aid in the economic development and competitiveness of the state.

As state policymakers try to achieve these goals, they find that many significant factors are beyond their control. Among the most important of these factors are technological change, changes in the general economy (e.g., inflation), and the development of competitive markets. But state policymakers do exercise significant control through their regulation of cost allocation, pricing, and depreciation

practices for intrastate public network investment, which collectively represents about 80% of U.S. public telephone network investment.

REASONS FOR DIFFERENT STATE POLICIES

There are several reasons for the different state policies. The first is that state legislators have varied in the extent of legal authority they have delegated, explicitly or implicitly, to PUC regulators. State telecommunications laws vary in how deregulation is defined, whether it is mandated or not, what services are specified, what process requirements are required, what equity issues are included, and what oversight and sunset provisions are provided. The following chapter by Teske and Bhattacharya addresses in some detail the reasons for these legislative differences.

Second, states vary in the size and nature of existing and potential service markets and in their market environment. For example, Iowa has over 140 small telephone companies serving rural areas, whereas 8 states have 10 or fewer small telephone companies. Eleven states are single local access and transport areas (LATA) states,¹ and these have generally resisted facilities-based intraLATA competition to a greater degree than other states. Moreover, the amount of actual and potential competition within the states varies considerably.

Third, political pressure for change varies by state. Williams and Barnaby (1992) argued that 38% of state regulatory reform plans were initiated by the PUCs, 30% by state legislatures, and 24% by the telephone companies. Some legislators, such as Assemblywoman Gwenn Moore in California, have been very active; Moore introduced and helped enact more telecommunications bills than any other state legislator. In terms of telephone companies, U S West has been the most aggressive in trying to achieve deregulation statutes in all 14 states in which they operate. Pressure can also come from large business users of telecommunications services or from new competitors. Bypass of public network facilities has occurred most intensively in a small number of states.

Fourth, the regulators and regulatory environment varies in each state. Some differences relate to the preferences and priorities of individual commissioners and their key staff members. Teske (1990) showed that these views, as represented by the "regulatory climate" measures used by Wall Street analysts, do influence policy choices, and Cohen (1992) provided similar evidence of the impact of

¹Local access and transport areas, or LATAs, were created and defined in the Modified Final Judgment for the divestiture of AT&T in 1982. They were assumed to generally fit local service regions. States were given the authority to decide whether or not to allow competition across LATAs within their states, as most states did fairly soon after divestiture, as well as whether to allow competition within LATAs, which was a more complicated choice that evolved more slowly in most states. See Teske (1990) for a political economy explanation of different state intraLATA competition choices.

regulators. In effect, we have 51 mini-FCCs, each staffed by different human beings who view similar problems differently. Thus, for example, when all states were faced with the problem of how to deal with an FCC order mandating open entry for customer-owned coin-operated telephones (COCOTs) within their state, state regulators adopted varying policies, including where the COCOTs could operate, how much they could charge customers, and what services they must provide (e.g., 911, directory and operator assistance, and coin return).

Regulatory differences are also affected by staff resources and expertise. In 1994, California and New York had over 50 professional staff members working exclusively on telecommunications.² On the other extreme, 5 states had none, and 17 others had 5 or fewer staff members. One Rocky Mountain state has traditionally resisted assigning even one person exclusively to telecommunications, on the grounds that if that person left the staff, they would have no expertise remaining.³

State policy is also sometimes influenced by the actions of other states. In a survey of all state PUCs by Hudson (1990), 78% thought decisions by other commissions in their regions were "somewhat important" to them, and 17% thought they were "very important." Only regulators in Alabama, Florida, Indiana, Nevada, and New Mexico answered that those decisions were "not important." In some regions, particularly in New England and the 14-state Mountain region served by U S West, the PUCs meet and share information on a regular basis.

EXAMPLES OF STATE POLICY CHOICES

Since the AT&T divestiture, states have faced many important policy issues, but have often responded in different ways, based on many of the factors cited earlier. The most contentious issue the states faced immediately after divestiture was probably rate design generally, and local residential rates in particular (see Teske, 1990, and Cohen, 1992, for how these were handled). Rate increase requests were at record levels in the mid-1980s. However, state regulators were fortunate that a variety of factors reduced rate increase requests in later years. Low inflation, low interest rates, productivity improvements in telecommunications technology, and changes in the 1986 Tax Reform Act became favorable to local rates. Some states, such as California, have consistently fought to keep local rates as low as possible, whereas others have recognized trade-offs and allowed rate increases in order to achieve other important goals.

Another particularly crucial and vexing policy issue for state regulators has been determining "effective competition." States have struggled to obtain relevant

²State PUCs also usually regulate energy and gas issues, and sometimes water, sewer, transportation, and insurance industries.

³Note that the tremendous variation in staff is not only true in telecommunications regulation. The California PUC has over 500 professional staff, whereas 10 states have 20 or less.

information to make more informed decisions about both local rates and effective competition. As Gabel noted in chapter 2, such information ideally would include: (a) detailed market analysis to identify what market segments are competitive, where LEC pricing flexibility is appropriate, and where entry may occur and undermine existing rate structures; (b) detailed knowledge of LEC economic costs to prevent predatory pricing, more carefully target cross-subsidies, and set cost-based rates; (c) information relevant to insuring LEC cost efficiency; (d) greater knowledge of market structure effects of technological change; and (e) sophisticated market monitoring to facilitate targeted responses by the state regulators. No state has been able to gather all of this information, but states with more PUC staff resources have been able to do more than others.

Cost and effective competition issues are particularly difficult in local markets. In major cities, competitor firms like Teleport and Metropolitan Fiber Systems (MFS) have tried to compete with the LECs, going after their biggest customers (see Teske & Gebosky, 1991, for details). To respond to that competition, the New York State PSC was at the forefront of state efforts to develop interconnection policies that would allow such competition to be fair and not preempted by the LECs. With similar entry pressure in Chicago, the Illinois PUC developed the idea of "Telecommunications Free Trade Zones," to open up local markets to competition, but also giving the LEC pricing flexibility to compete fairly for that traffic. As of July 1994, only New York, Illinois, Maryland, and Washington have approved full local competition, while Connecticut, Pennsylvania, Michigan, and Wisconsin have stated that they intend to authorize it.

States also face ongoing problems related to service to rural areas. Of course, some states have larger rural populations than others. Rural policy problems include possible increases in rural long distance rates if urban and rural costs are deaveraged, failure to benefit from competition because it develops very slowly, and less potential to expand and reduce costs of rural service through technical improvements (see Parker, Hudson, Dillman, & Roscoe, 1989).

A less central example, but one that is still salient to consumers, was provided by telemarketing policy in the early 1990s. Telemarketers had discovered that automated dialing devices were more efficient for them than human operators. With the expansion in usage, many consumers began to feel inundated with such calls and complained in large numbers to PUCs and to legislators. Because of consumer complaints, telemarketing became the leading telecommunications concern of state legislatures in 1991, accounting for 25 of the 123 telecommunications bills passed that year.

States handled the issue in different ways. For example, New Mexico required that messages only be given with the recipient's consent and that no telemarketing calls were allowed before 9:00 a.m. Indiana and Washington state allowed calls after 8:00 a.m. Florida required telemarketers to be licensed and to file scripts and sales literature with the state Agriculture and Consumer Services Department.

This led to complications for the telemarketing firms operating in a national market environment. Their pressure and consumer complaints pushed Congress

to act on this issue. The House and the Senate passed bills requiring the FCC to develop rules limiting telemarketing and taking consumer preferences into account on this issue.

ALTERNATIVES TO RATE-OF-RETURN REGULATION

As discussed elsewhere in this book, problems have arisen with the traditional rate-of-return approach used for most regulated utilities, and states have, to varying degrees, experimented with alternatives. Proponents of changes suggest that over 30 states adopted new forms of regulation through 1993. Traditionalists suggest that in most cases these reforms are simply modifications to rate-of-return review. How radical have state innovations really been?

A decade after the 1984 implementation of divestiture, some states had done relatively little to effectuate regulatory change. The states often placed in this group include Indiana, Wyoming, Pennsylvania, North and South Carolina, and Washington, DC. Others have instituted more change, but significantly less than the LEC, and in some cases, even less than the state PUC desired. For example, in Illinois, the PUC issued a 1989 order to put a profit-sharing incentive regulation scheme into action. But in November 1991, an appellate court overturned the order and forced the PUC to reinstate traditional rate-of-return regulation on Illinois Bell. The Court ruled that the existing state law allowed no other option. That law was to sunset at the end of 1991, but attempts to enact a new law, one that would have authorized the implementation of alternative methods of regulation, failed and the sunset was extended until 1993.

In Michigan, the telecommunications statute was scheduled to sunset in 1992. Michigan Bell, the Telephone Association of Michigan, and the Communications Workers of America (CWA) pushed a major deregulation bill introduced in the state Senate, which would have created a new telecommunications regulatory body with jurisdiction over any form of two-way telecommunications. Under the bill, local service and access were to become nonprofit monopolies of the telephone companies. All other services were to be wide open to competitive entry. However, a coalition of small businesses, non-Bell competitive telecommunications providers (including the Michigan Cable TV Association and the Michigan Telemessaging Association), and various consumer groups opposed the bill, fearing that cross-subsidization and stringent certification standards for competitors in regulated services might deter small companies from entering regulated markets. The result was a law far less extreme than the original bill. It was subjected to 100 Michigan House amendments during its initial pass at the bill, 47 of which were adopted in whole and 15 in part by the committee of House and Senate conferees. The Michigan PUC was retained in the new law, with broad discretion to regulate services and authorize competition in regulated services. The PUC also retained authority to protect consumers and competitors

from marketplace abuses, regulate accounting practices and quality of service, and investigate and resolve consumer complaints as well as conflicts between providers.

In those states in which some form of incentive regulatory plan was introduced, the plan was often offered to the telephone company on an optional basis. Usually the company responds positively. But sometimes the company finds the innovation unpalatable and chooses to remain under traditional rate of return regulation, as in Utah. U S West told the Utah PUC that the sharing formula in the plan (for earnings above a 12.2% rate of return) did not provide sufficient incentive, particularly with earnings capped at 17%.

In Colorado, U S West even wanted to reverse some deregulation that had already occurred. The firm proposed reregulation of special access, Centrex, feature options, and any service introduced after 1987, such as voice mail and other enhanced services. U S West cited the cumbersome cost allocation procedures required by the law each time it wanted to introduce a new service or substantially modify a deregulated one, and noted that deregulated services accounted for only about 5% of gross revenues. U S West also claimed that bringing such deregulated services back under regulation would put the substantial time and resources devoted to cost allocation calculations to better use.

As these examples illustrate, it is quite difficult to indicate precisely the degree of innovation that states have provided, because characterizing and labeling what these states have done with respect to alternative forms of regulation is often arbitrary. Even the experts disagree, or at least use different terminology. This is illustrated by comparing summary reports prepared by Bell Atlantic, Bell South, and Southwestern Bell staff responsible for tracking policymaking at the state level. For example, 1990 reports individually prepared by all three firms provided almost identical detailed descriptions of "alternative" regulatory actions in Florida, Kentucky, Illinois, Washington, Michigan, Mississippi, and Minnesota. But after describing what was done, the Bell Atlantic summary labeled the alternative plan adopted in each state as "Rate Stability/Incentive Regulation," whereas Bell South called it "Earnings Sharing," and Southwestern Bell classified it as "Revenue Sharing." *State Telephone Regulatory Reports* called these state actions "Rate of Return Incentive" plans. One should therefore be wary of statements that x number of states have taken action y , as the categories may or may not accurately describe the innovation.

For example, among the terms used to describe various reforms, innovations, and modifications that have taken place at the state level are: *banded rate of return, banded pricing, pricing flexibility, detariffing, service specific detariffing, stepped regulation, rate of return incentive, price deregulation, complete deregulation, price caps, price regulation, social contract, negotiated social contract, earnings sharing, revenue sharing, profit sharing, incentive sharing, incentive regulation, rate stability, rate moratorium, rate stayout, rate case moratorium, rate of return elimination, rate equalization, rationalized regulation, flexible*

regulation, and *rate innovations*, which may be *flexible*, *open*, *revenue neutral*, or *tiered*. Some of these terms are taken to mean the same thing. Most of the terms describe alternatives that are more flexible than rate-of-return regulation.

In formulating and reviewing alternative regulatory plans, state PUCs often consider the following factors: (a) the length of the plan, with most ranging from 2 to 5 years; (b) treatment of basic local service rates; (c) adjusting prices toward costs; (d) how to handle depreciation reserve deficiencies; (e) allowing pricing flexibility to meet competition; (f) incentives for innovation and cost efficiency; (g) treatment of exogenous factors such as taxes and FCC separations changes; and (h) financial and service quality reporting. Of course, these considerations often overlap. For example, after 1992 an increasing number of alternative plans were emphasizing service quality as an incentive for innovation.

In some states, the criteria to be used by the state PUCs to determine if an alternative plan should be adopted are spelled out in the relevant state law in some detail. In others they are left almost entirely to the PUC. For example, in Washington state, the statute requires the PUC to make written findings of fact as to each of seven policy goals (public interest, fair rates, service quality, etc.) in ruling on any proposed alternative regulatory plan. Before any plan may be adopted or modified, the PUC must make a positive finding on each of these goals.

Forty-one of the 50 states surveyed by Hudson (1990) noted that the impact of telecommunications on the states' social or economic development was a consideration in its decisions on regulatory alternatives. Those states that cited specific criteria for accessing these impacts referred to promoting efficient use of facilities, enhancement of state networks, infrastructure support for the state economy, impact on attracting and retaining industry, and rural access to the same services available to urban customers. In the next chapter Teske and Bhattacharya consider the impact of bringing these infrastructure criteria into the regulatory decision-making process.

MEASURING SUCCESS OR FAILURE OF STATE POLICY EXPERIMENTS

Measuring and evaluating the *potential* success of proposed new regulatory approaches is extremely problematic. But measuring and evaluating the *actual* success of an alternative plan, once it is in place, is also not easy, as illustrated by an independent auditor evaluating Alabama's 1986 Rate Stabilization and Equalization (RSE) Plan, a new approach to regulating South Central Bell. The auditor, Theodore Barry & Associates (1991) noted that even though the plan was merely a modification of an RSE Plan previously adopted to regulate both the Alabama power and gas industries, "The RSE process is a relatively unique concept in the area of regulatory oversight. As such, very few models exist by which any commission can make an assessment of the program with a high level

of confidence about its conclusions. The normal standards of comparative cost/benefit used in most such evaluations have not yet been formulated and will not be for some time" (p. 5). The firm was thus forced to establish a set of parameters within which a systematic analysis could be conducted. In explaining the criteria it used in evaluating the success of RSE, the auditors noted: "If a decade of experience in such matters were available to each party, or if a dozen other commissions had comparable programs, it could be concluded that sufficient knowledge exists to warrant stronger definition" (p. 11).

Mueller's (1993) evaluation of the impacts of Nebraska's deregulation bill is the most careful comparative analysis of state policy experimentation. Despite rate deregulation, he found local rate increases within reason, but intraLATA toll rates that are higher in Nebraska, in part because of lack of competition allowed in the bill. With U S West hoping to achieve regulatory gains in other states, the firm may have kept rate increases in Nebraska lower to generate goodwill; thus the experiment and its evaluation may not be properly controlled.

Some opponents of state alternative forms of regulation argue that the firms' financial results (profits) become the performance index that measures its behavior. Thus, they argue, the reward and performance index are essentially the same things—profits—and the incentive becomes circular.

The Aspen Institute Telecommunications Regulation conference (summarized by Entman, 1988) attempted to develop a consensus of state goals and strategies, as well a comprehensive set of measures to gauge success. Those measures include: penetration rates, basic service rates, customer complaints, cross-subsidization, quality of service, productivity increases, investment planning, costs of regulation itself, deployment of new services, community perceptions of the industry, economic growth, complaints from competitor firms, extent of competition, price changes, diffusion rate of new technologies, rural service, and industry rates of return. Unfortunately, any such long list includes many measures that may involve trade-offs, depending on the particular regulatory policy pursued.

Better evaluation of the state policy experiments is a clear priority. Such evaluation should be performed by government and academic researchers, rather than only the interested party firms, to reduce actual bias and the perception of bias.

VARIED STATE APPROACHES TO THE INFORMATION SUPERHIGHWAY

Unless the Clinton administration's NII initiative, backed by Vice President Gore, takes preemption further than most expect, the 50 states will be critical players in the development and evolution of an "information superhighway" or intelligent telecommunications network. As states retain policy responsibility for cost allocation, pricing, and depreciation practices for 80% of the national *public* network investment, their decisions about the price of access, rural issues, interconnection rules, privacy concerns, and cross-subsidies will be important. Ultimately, the

most important technological aspects of these advanced networks concern the integration of multiple services over the customer access line into the home or business, which is primarily under the jurisdiction of the states, a jurisdiction that would be the most difficult for the federal government to preempt.

State opposition to preemption on this issue was illustrated by their reactions in 1991 to the National Broadband Development Act, which aimed to mandate nationwide (to the home) deployment of broadband fiber optic networks by 2015 and require the states to develop a plan for FCC approval. Through NARUC, the states declared their opposition to preemption of intrastate network investment choices. That bill did not pass Congress, but state PUCs did get the opportunity to register with Congress their opposition to extreme preemption under the justification of a national information superhighway.

Even as the direction of development of an information superhighway becomes clearer, there are still many uncertain elements. Although policy experimentation by innovative states is valuable, most state policymakers recognize that it is equally unwise to recklessly lead the charge for the information superhighway, and risk falling off the cliff, as it would be to go to the other extreme of sticking its head in the sand and refusing to accept future trends that will affect their state.

States have employed at least five general approaches to modernizing networks to build the information superhighway. These five are not necessarily mutually exclusive; some states have combined elements.

The first is the legislative approach. State law can be a vehicle for promoting infrastructure modernization and fostering an evolution to an intelligent network. Recent laws in New Jersey and Illinois are illustrative. The introduction of the New Jersey bill followed a consultant's report. It includes a goal to wire the state with fiber optics to develop a state-of-the-art telecommunications infrastructure for economic development. Rate stability is ensured by the plan over much of the investment, particularly for the most basic local service options. Similarly, Illinois' law is based on two principles: protection of captive consumers and flexible regulation for competitive services that will encourage infrastructure investment.

Second is the task force approach. The Governor's Telecommunications Task Force in Michigan released a report in 1990 called "Connections: A Strategy for Michigan's Future Through Telecommunications." The Task Force was co-chaired by then Governor Blanchard's wife Janet. Assisted by 220 representatives of business, government, and education, the task force made 53 recommendations, including the establishment of a Cabinet Council on Information Technology that would develop a state-of-the-art network for state government and incentives for private sector involvement in a modern network. Governor Blanchard was defeated in the 1990 election and many of these recommendations are not being implemented by his successor. However, the Michigan experience showed that the task force approach is viable for other states.

Pilot networks are a third approach. In 1991, the Missouri PUC issued a report called "Network Modernization and Incentive Regulation" that argued that the

“most effective way to inform the public of the need to modernize the network is by example” (p. 3). It called for a task force to establish a pilot educational and health-care broadband network. An increasing number of other states are considering or actually creating pilot networks to help stir interest in telecommunications modernization and to better understand the realities of operating and programming broadband systems. It is important to develop some consensus about the specific goals of the project (e.g., cost efficiency or new services demonstration) and the means to evaluate whether or not these goals are actually met.

A telecommunications master plan represents a fourth approach. With a significant push from then-Senator Al Gore, the Tennessee PUC in 1990 adopted a detailed \$400 million master plan for accelerated telecommunications technology deployment throughout the state over the next decade. After committing to the plan, the local exchange telephone companies are able to operate under an alternative regulatory framework, which includes extended earnings review and some pricing flexibility. The extent to which new technology and new services, such as ISDN, will be available in Tennessee is significantly accelerated with this master plan. The plan has been controversial and has not been fully implemented as originally designed. Nevertheless, it provides an example of a detailed modernization plan based on an exhaustive analysis of the current telecommunications infrastructure that other states can imitate.

The fifth approach is creating a comprehensive public database to be used in planning and policymaking. New York state began this process in 1991. The database is expanded and updated continuously to include relevant information related to user needs by various segments (residential, business, mobile, etc.), modernization alternatives and plans, evaluation tests along the way, and secondary benefits to the state.

One recent approach that combines elements of the task force, pilot network, master plan, and database approaches is the New York State Telecommunications Exchange. Through an ongoing process, the Exchange hopes to integrate regulatory and economic development initiatives and use state government as a positive force to develop the telecommunications industry in socially desirable directions, still relying on market forces for most of the investment and service provision.

The shape and scope of the information superhighway or intelligent network within a given state will ultimately be greatly affected by the presence or absence of public policy. In beginning to navigate new, uncharted waters, some states are adopting some or all five of the approaches just outlined, to meet their own needs, visions, institutions, traditions, and political realities.

CONCLUSIONS

States have acted as policy laboratories in the decade since the breakup of AT&T. Public utility commissioners have tried a number of approaches to telecommunications regulation, as influenced by their own analysis and political input from

governors, legislators, telephone firms, new competitors, large business users, and consumers.

Sometimes analysts overstate the actual variance in state policies, as many different terms are used to describe similar or related policies. But there are real differences between state approaches, and some have already acted as models not only for other states, but for the federal government. There are also great differences in states' capacities to handle these issues.

In the important issues related to the information superhighway that lie ahead, states will play a critical role, unless, of course, much of that role is preempted by the federal government. Even in the event of preemption that would go far beyond today's two-tiered system, states are likely to be left with a some policymaking role.

As states consider that role, more actors, beyond the PUCs, are laying a claim to telecommunications turf and expertise. The next chapter analyzes the implications of additional state actors entering the arena of telecommunications policy.