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## **Telecommunications policy and the persistence of the local exchange monopoly.**

**Business Economics**, April, 1998, by David L. Kaserman, John W. Mayo

Telecommunications policy has never been without controversy. Yet since passage of the Telecommunications Act of 1996, debates that traditionally have been reserved for staid and often obscure public utility commission hearing rooms have spilled over to far more visible forums, such as state legislatures, editorial pages, and courtrooms. These debates center on the various rules and policies that will govern market structure and pricing throughout the telecommunications industry; the answers that emerge will have profound effects on the degree of consumer choice, prices, and quality of service across virtually the entire range of telecommunications services.

Given the increasingly vital role of information gathering, transmission, and dissemination for advances in productivity and competitiveness, these debates - which otherwise might be of interest to a relatively limited number of regulatory economists and telecommunications specialists - are taking on extraordinary and widespread importance for the broader economy. Indeed, it is probably safe to say that no sector of the U.S. economy will be unaffected by the outcome of this ongoing policy formulation process.

### **BACKGROUND**

The modern era of telecommunications policy began with the divestiture of the Bell operating system in 1984. That divestiture was the culmination of a Department of Justice antitrust case that had been initiated in 1974. The widely accepted theory behind this case was that the long-distance portion of the telecommunications industry could, if separated from the monopolistic local exchange industry, realize effective competition. Consequently, this segment of the industry could then be deregulated.

The actual divestiture agreement, known as the Modification of Final Judgment, or MFJ, is a short but substantive document. Its principal requirement was the structural separation of AT&T from the regional Bell operating companies (RBOCs).(1) Upon separation, the former would provide inter-local access and transport areas (LATAs), long-distance services (both interstate and intrastate), while the latter would provide local exchange and relatively short-haul intraLATA long-distance services. The rationale for this structural separation was that the vertically integrated Bell system had both the incentive and wherewithal to disadvantage its fledgling rival long-distance firms through either outright denial or discriminatory provision of access to local exchange facilities whose control was exclusively in the hands of the Bell operating companies. Indeed, at the antitrust trial against the Bell system, substantial evidence was presented that the integrated Bell system had indeed acted upon these incentives to stifle the emergence of competition in the long-distance marketplace.(2) With ownership of the facilities of the local exchange monopoly (the Bell operating companies) separated from those of its former long-distance arm (AT&T), the former companies would no longer have any financial incentive to distort competition in the long-distance marketplace.(3)

Another key element of the MFJ was Judge Harold Greene's specification of the conditions under which the Bell operating companies could re-enter the interLATA long-distance marketplace. Specifically, section VIII (c) of the MFJ allowed for such Bell company reentry upon a showing that "there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter."(4) Given this



condition, reentry would be authorized upon a showing that the (upstream) local exchange market had become competitive. With competition at this stage of production, the ability to injure competition at the downstream stage vanishes and reintegration is warranted.

Industry structure, then, was governed under the MFJ from 1984 until the passage of the Telecommunications Act of 1996. This Act was the first substantive revision of the 1934 Federal Communications Act, which had first initiated federal government oversight of the telecommunications industry. This new legislation is not only a comprehensive revision to the 1934 Act, but it forges a completely new and bold path for telecommunications policy in the United States. Specifically, whereas in the past the principle aim of regulation might best be characterized as "protection" of incumbent utility providers of telecommunications from entrants and of consumers from the consequent monopoly power of the incumbent providers, the new Act seeks to promote competition in every telecommunications market. It does this by explicitly adopting policies that:

1. Remove legal and regulatory barriers to entry;
2. Allow for purchases of unbundled "elements" of the telecommunications network;
3. Establish pricing guideposts for the purchase of access to these unbundled network elements and wholesale services that are to be provided by incumbent local exchange carriers;
4. Require nondiscriminatory access to the operational support systems needed by entrants to process their customers' orders and render bills in an accurate and timely fashion.

Importantly, the Act continues, albeit in a modified form, the long-standing concern regarding the premature reintegration of the Bell operating companies into the interLATA long-distance market. The relevant provisions are contained in Section 271, which requires that, in order for the Bell operating companies to reenter the interexchange industry, they must first open their local exchange markets to competition.

Specifically, under the 271 provisions, an RBOC's reintegration within its certificated geographic territory is made contingent upon the satisfaction of four necessary preconditions:(5)

1. The RBOC must be able to demonstrate that it is providing interconnection to competitive local exchange providers (at least one of which is predominantly a facilities-based carrier) or, at the very least, that interconnection is generally available to potential competitors. Moreover, the terms and conditions under which the RBOC offers interconnection must conform to the standards established by a "competitive checklist" prescribed by the Act.
2. The RBOC seeking approval to reintegrate must comply with the Act's nondiscrimination and structural separation requirements. Importantly, the Federal Communications Commission (FCC) has interpreted these provisions to mean that not only must the RBOC refrain from discriminating among third parties, but regulators must also be able to establish that the RBOC does not discriminate between itself (or its subsidiaries) and third party providers.(6)
3. The Act requires the FCC to seek advice from the U.S. Department of Justice (DOJ) concerning each RBOC 271 application. In conducting its evaluation of these applications, the latter agency may apply any standard that it deems appropriate. Although the resulting DOJ recommendation is not binding on the FCC's decision, the Act requires that "substantial weight" be given to it.



4. The Act instructs the FCC to deny the application unless it finds that the requested reintegration is consistent with the "public interest." From an economic standpoint, such a determination would appear to require that the benefits accruing to telecommunications consumers exceed any potential harm to those consumers as a result of the proposed reintegration.

The above criteria are clearly intended to establish some threshold level of competition in local exchange markets as a prerequisite to RBOC reentry into long distance. The crucial question, then, is what that level of competition will be. Current policy requires that local exchange markets be "open to competition" before RBOC reintegration is allowed to occur. The issue reduces to how this rather amorphous phrase is defined. Currently, two markedly different definitions are being endorsed by opposing advocates.

One definition, championed by the RBOCs, is essentially legalistic in nature, with little or no economic content. This definition would classify a market as being open to competition when legal and regulatory barriers to entry have been removed and the fourteen-point checklist is at least superficially met. The other definition, endorsed by the interexchange carriers and other potential entrants, is more economic in nature. This definition would require that a sufficient amount of actual observed entry occur to demonstrate conclusively that: (1) Economic, as well as regulatory, barriers to entry have been lowered sufficiently to allow the threat of potential competition to exert a disciplining force on incumbent firm behavior; and (2) checklist items are being met in a functional as well as legal sense.

This latter definition presents a considerably more demanding standard for RBOC reentry. Nevertheless, it is this definition that must apply if the 271 provisions are to have economic content. And it is this definition that must apply to ensure that reintegration will, in fact, benefit consumers. Bell operating companies filed several applications for reintegration in 1997. Thus far, each of these applications has been denied. In denying the application of Ameritech Michigan, generally the RBOC acknowledged to be the most "procompetitive" in its approach to opening its local exchanges to competition, the FCC concluded that Ameritech had failed to demonstrate compliance with several of the 271 provisions.<sup>(7)</sup> The FCC similarly has denied the applications of SBC in Oklahoma and Bell South in South Carolina.

A key issue for the future of the industry structure is how the Bell operating companies react to the initial denials for their reentry into the interexchange market. One option would be for the RBOCs to "roll up their sleeves" and aggressively open their markets to competition sufficiently to satisfy the public policy standards articulated by the Act and the FCC and thereby to expedite their reentry into the interexchange marketplace.

Indications are, however, that the RBOCs have taken a distinctly different approach. Facing policy decisions that were not to their liking, the RBOCs have taken their case to a variety of different forums where they appear to be hopeful to find more sympathetic policymakers that they may convince to change the rules by which they are allowed to reintegrate. Specifically, the RBOCs have taken the FCC to court, have taken their case back to Congress, and have pressed editorial writers to take up their cause for reentry into the long-distance market.<sup>(8)</sup> At the time of this writing, it is unclear whether this approach will, in fact, expedite their entry into the long-distance market. It is apparent, however, that local exchange competition, once thought to be the first likely benefit of the Telecommunications Act, is instead turning out to be the first victim of the Act.

How have these public policy guideposts embodied in both the MFJ and the Telecommunications Act of 1996 affected the provision of long-distance and local exchange telecommunications services in the United States?

#### THE LONG-DISTANCE MARKET



While certainly not unanimous, a broad consensus appears to exist that public policy toward the long-distance industry in the past fifteen years has been a considerable success.<sup>(9)</sup> At least a partial contributor to that success was the conversion of local exchange company switches to provide competing long-distance carriers "equal access" to their customers' phones. Specifically, the MFJ required, *inter alia*, that local exchange companies provide such equal access to all interexchange companies that relied upon the local "bottleneck" facilities of the local exchange carrier to originate and terminate calls. As a practical matter, the introduction of equal access ended the dialing disparity that had required customers of long-distance companies other than AT&T to dial several extra digits to be able to place long-distance calls.

In the wake of the divestiture and the implementation of equal access, competition began to flourish in the long-distance market. At the time of the divestiture, AT&T was one of a handful of long-distance carriers, possessed roughly a 90 percent market share, had the only nationwide network, and the price of a coast-to-coast daytime long-distance call was approximately 55 cents a minute. By the end of 1997, the long-distance marketplace had changed dramatically. AT&T's market share of long-distance services had fallen to roughly 50 percent, with over 600 firms providing long-distance service in the United States.<sup>(10)</sup> With a modest amount of shopping, residential consumers typically find rates for long-distance services that now hover around ten cents a minute - an 82 percent decline from predivestiture prices.<sup>(11)</sup> In response to the growth of competition, essentially all states and the FCC have now ended price regulation of long-distance services.

In hindsight, it is possible to identify several key elements that were critical to the development of an effectively competitive long-distance marketplace. Foremost among these was the 1984 separation of ownership of the long-distance assets of AT&T from the bottleneck monopoly facilities of the Bell operating companies. Indeed, in spite of a variety of regulatory rules that were intended to prevent the discriminatory provision of local exchange access by the vertically integrated Bell System against its long-distance rivals, a number of industry analysts concluded that regulation, by itself, was essentially incapable of preventing the Bell companies from acting on their incentives to prevent competition in the long-distance market from developing.

Along with the structural separation, policymakers also undertook a number of specific actions that further enhanced the prospects for competition. As noted earlier, the implementation of equal access acted to reduce product differentiation barriers to entry that may have served to insulate AT&T's position in the long-distance market. Also, in virtually every state, regulatory entry requirements were eased so that legal barriers to entry were virtually eliminated. Finally, and importantly, policymakers conditioned the end of regulatory price controls on AT&T on a clear demonstration that effective competition in the provision of interexchange services had emerged.

The net effect of these policy actions has been an explosion of output, service offerings, and quality of long-distance services. At the same time, prices have dropped markedly, connoting the vigorous rivalry among the myriad long-distance competitors that are actively vying for the patronage of long-distance consumers. In sum, consumers have benefited tremendously from the introduction of competition and the subsequent deregulation of pricing in the long-distance marketplace.

## LOCAL EXCHANGE TELECOMMUNICATIONS

In sharp contrast to the explosion of competition in the interexchange marketplace, competition has been much more elusive in the provision of local exchange services. In 1984, essentially all local exchange telephone services were provided by incumbent local exchange telephone companies (ILECs) that held franchised monopolies within their certificated regions. While some modest signs of change are beginning to emerge, the provision of local exchange service in 1998 is still almost exclusively provided by the incumbent



local exchange telephone companies, in spite of the 1996 Act's elimination of regulatory barriers to entry.

There are several reasons why local exchange markets continue to remain so concentrated.<sup>(12)</sup> First, and most importantly, competitive entry into these markets requires an extremely high level of cooperation by the ILECs due to the technological necessity to interconnect competing networks. The Telecommunications Act of 1996 and FCC orders explicitly recognize this state of affairs. The Act places extensive and detailed obligations on the ILECs in the areas of sales of unbundled network elements, their pricing and provision, determination of wholesale discounts, conditions of interconnection, etc.

These obligations were written into this law because it is abundantly clear that competition in local services can only arise if the ILECs can be forced to refrain from a plethora of potentially anticompetitive practices. Unfortunately, competition in these markets is not in the ILECs' economic interest. Unsurprisingly, they wish to maintain their monopoly status over the local exchange. Potential entrants, then, are placed in the unenviable position of being forced to rely upon the cooperation of another party who has every incentive to be uncooperative. And regulators are placed in the equally unenviable position of trying to enforce that cooperation.

Cost conditions and investment requirements also severely limit entry into local exchange services markets, particularly on a facilities-based basis. Specifically, there are likely to be some portions of local exchange markets where natural monopoly conditions continue to prevail. Also, a substantial portion of local exchange investment appears to represent sunk costs that, of course, connote the lingering presence of economic barriers to entry. Moreover, the dominant position of the ILECs interacts with these cost conditions and investment requirements to discourage entry. In particular, the high capital cost requirements of facilities-based entry (virtually all of which are sunk) become particularly prohibitive if the ILEC can be expected to engage in strategic anticompetitive practices in the postentry period. Finally, if and to the extent that local exchange rates incorporate subsidies (funded by excessive access charges), entry is further discouraged. The level and nature of these subsidies, however, are uncertain at this time.

In summary, local telecommunications providers continue to possess considerable market power and maintain control over key elements of the telecommunications network upon which their prospective rivals must depend in order to compete successfully. And, perversely, the emergence of competition in the local exchange markets requires cooperation by the incumbent local exchange providers via reasonable and nondiscriminatory interconnection arrangements, efficient pricing and provisioning of unbundled network elements, wholesale services, and the like. Until sufficient facilities-based entry occurs to erode the dominant position the RBOCs now hold, these firms will continue to possess substantial monopoly power in both the access and local exchange services markets; at this point, it is unclear how long it will take for such entry to unfold.

Therefore, regulation has a critical and difficult role to play in facilitating competitive entry in these important markets. In the absence of some regulatory mechanism to oversee the practices of the ILECs, one cannot credibly expect that the elimination of regulatory barriers to entry by itself will produce entry sufficient to render these markets effectively competitive. There are clearly significant nonregulatory (economic) barriers to entry.<sup>(13)</sup> To fulfill the promise of competition in local exchange telecommunications markets, aggressive procompetitive policies are and will continue to be required.

Given the emergence of a policy specifically designed to enable a competitive supply of telecommunications services, one may reasonably ponder why it is that competition has not come to local exchange services. The answer springs from basic economics: firms with monopolistic control of a market are unlikely to cede that control willingly, and the strategies at their disposal to maintain control are virtually limitless. The past decade of policy debates over the introduction of competition in local exchange markets has been a poignant



lesson in the difficulty of enticing a monopoly provider to open its markets meaningfully to competition absent (or even with) governmental intervention to do so.

#### PARALLELS BETWEEN TELECOMMUNICATIONS POLICY AND CHILD-REARING

In recent years, an approach toward the rearing of somewhat hard-to-control children has arisen under the moniker "Tough Love." Under such an approach to child rearing, children are not coddled, nor do parents (acting as rule-setters) acquiesce to the pleadings, pouting or tantrums of the child. Rather, the rule setter establishes a clear set of guideposts with well-defined rewards for compliance and no rewards, or punishment, for noncompliance to the rules. The theory behind this tough love philosophy is that, by establishing clear and nonnegotiable benchmarks for commendable behavior, a set of incentives will be put in place that lead children to behave in desired ways. Importantly, this approach recognizes that the parent cannot make the child behave in the desired fashion, but rather the desired behavior must emanate from the child. Only by putting in place a clear set of rules with appropriate rewards for desired behavior will the child be likely to exhibit the desired behavior.

Beginning in 1984, with the divestiture of AT&T and continuing through the more recent passage of the Telecommunications Act of 1996, telecommunications policy may aptly be described as one of "Tough Love." After decades of coddling to the demand of a vertically integrated monopoly supplier of telecommunications services for protection from emerging competition, telecommunication policy took a somewhat abrupt turn. Specifically, the divestiture of AT&T in 1984 split the monopolistic local exchange segment of the telecommunications industry from the potentially competitive long-distance segment.<sup>(14)</sup> A national commitment to promoting competition in the long-distance industry then emerged. And, importantly, the procompetitive policies that were adopted were not compromised or rescinded in response to subsequent pleadings by the affected firms.

More recently, policymakers have embraced the notion of developing competition in local exchange services. Akin to the "Tough Love" approach, to date, policymakers have generally eschewed direct micromanagement of the day-to-day affairs of telecommunications companies in their desire to promote competition. Similarly, policymakers have generally avoided coddling or acquiescing to the whining or tantrums of industry participants that are unhappy with the particular rules that have been established for promoting competition.

The commitment to a "Tough Love" approach to telecommunications policy, however, is presently under unprecedented attack. The RBOCs, which nominally embraced the Telecommunications Act, have now uniformly sought to have the Act and the regulatory rules implementing the Act overturned by whatever means possible. The RBOCs have complained bitterly to Congress, to state legislative bodies, to governors, to regulators, to courts, and to the media. The barrage of complaints will, no doubt, test the mettle of the national resolve to insist that real competition (with its substantial benefits) be the principal driver of our telecommunications policy.<sup>(15)</sup> Nonetheless, at this point it is unclear whether the "tough love" policy will continue and ultimately succeed or succumb to the clear interests of the local exchange carriers to sustain their monopoly positions.

#### FOOTNOTES

<sup>1</sup> Under the MFJ, the territorial United States was partitioned into 161 Local Access and Transport Areas (LATAs). The RBOCs were granted authority to provide intraLATA calling while long-distance (interexchange) companies were granted authority to provide interLATA telecommunications. Over time, interexchange companies petitioned for and have been granted the authority to provide intraLATA toll calling as well. For details, see, Blank, Kaserman and Mayo (1998).



2 For a more detailed discussion of the antitrust case, see Temin (1987).

3 In general, input suppliers' profits are greater if output markets are competitive. See Spengler (1950).

4 See Modification of Final Judgment, United States of America v. Western Electric Company, Incorporated and American Telephone and Telegraph Company, Civil Action No. 82-0192 (with revisions as of January 1, 1989).

5 Reintegration into the provision of long-distance services outside the RBOC's certificated region is permitted immediately under the Act without any substantive preconditions.

6 First Report and Order, CC Docket 96-98, Federal Communications Commission, released August 8th 1988.

7 See In the Matter of Application of Ameritech Michigan pursuant to Section 271 of the Communications Act of 1934, as amended, to provide in-region interLATA Services in Michigan, Federal Communications Commission, CC Docket No. 97-137, adopted August 19, 1997, Para. 4.

8 Obviously, it is in the RBOC's interest to reenter the long-distance market with their local exchange monopoly intact. Indeed, one must ask why a rational firm would ever voluntarily relinquish a monopoly in one market in exchange for the right to enter a competitive market.

9 See Kaserman and Mayo (1994). For an opposing viewpoint, see MacAvoy (1996).

10 See Bender and Rangos (1997). For a more detailed discussion of the evolution of the long-distance market, see Kaserman and Mayo (1994).

11 Some, but by no means all, of this decline can be attributed to a substantial decrease in the access charges that interexchange carriers pay to local exchange companies for originating and terminating long-distance calls.

12 An alternative to the explanation we offer is that provided by the RBOCs. Specifically, they have argued that they have made their markets open to entry and that, in spite of this openness, the major interexchange companies have conspired not to enter the market. The presumed "reason" for this conspiracy is that, by doing so, the interexchange carriers are able effectively to forestall entry by the RBOCs into the long-distance market. A strong rebuttal to this "theory" is contained in Zeglis (1997).

13 Witness, for instance, the relative dearth of local exchange access provision captured by competitive access providers (CAPs), who, after a dozen years of extraordinarily high price-cost margins in these services, have been able to capture less than 2 percent of the market.

14 Technically, the divestiture only involved the divestiture of the Bell operating system, while the ability of GTE to participate in the long-distance business was guided by a separate consent decree.

15 Indeed, the RBOCs will certainly argue that the policies designed to insist on the opening of local exchange markets prior to their re-entry into the long distance markets is not one of "Tough Love" but is rather a case of "parental abuse."

## REFERENCES



Beder, Joe and Katie Rangos, "Long Distance Market Shares: Second Quarter 1997," Industry Analysis Division, Common Carrier Bureau.

Blank, Larry, David L. Kaserman and John W. Mayo, "Dominant Firm Pricing with Competitive Entry and Regulation: The Case of IntraLATA Toll," mimeo, January 1998.

Dadd, C. Mark, "The Outlook for the Telecommunications Industry and the Implications for the Economy and Business," *Business Economics*, Vol. 33, January 1998, pp. 14-17.

Kaserman, David L. and Mayo, John W., "Long Distance Telecommunications: Expectations and Realizations in the Post-Divestiture Period," in Michael A. Crew, Ed., *Incentive Regulation for Public Utilities*, Kluwer Academic Publishers, Boston, 1994.

MacAvoy, Paul. W., *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, Cambridge, Massachusetts, The MIT Press and the AEI Press, 1996.

Spengler, J.J., "Vertical Integration and Antitrust Policy," *Journal of Political Economy*, Vol. 58 (August 1950), pp. 347-352.

Temin, Peter, *The Fall of the Bell System: A Study in Prices and Politics*, Cambridge, UK, Cambridge University Press, 1987.

Zeglis, John, "Out of the Courts and Into the Market: Wouldn't it be Great?" Speech delivered at the American Enterprise Institute for Public Policy Research, December 18, 1997.

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## SPPPA FACULTY

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**The Macropolitics of Telecommunications Policy  
1899-1998:  
Lawmaking, Policy Windows, and Agency Control**

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## 1 Introduction

In this chapter, we use a macropolitics approach to study a century of Congressional policymaking for telecommunications. We attempt to explain the production of major laws –their timing and volume –in the area of telecommunications policy. Our real subject, however, is the creation and operation of regulatory regimes. Therefore, we view the chapter not only as an experiment in macropolitics but also one in policy history or “American Political Development” (APD).

Let us stake out more clearly the terrain over which we maneuver. Why is the production of major laws interesting? From a substantive viewpoint, Congress’s enactments of the Radio Act of 1912, the Communications Act of 1934, and the Telecommunications and Deregulation Act of 1995, along with many lesser statutes, were the creation of the American state in this policy arena—though hardly the whole story, of course. And, Congress’s willingness or reluctance to allow its creations, especially the Federal Communications Commission (FCC), to make decisions ranging from the mundane to the momentous, has been a central feature of the *operation* of this regulatory regime. In our view, understanding when and why Congress creates regulatory regimes, and how it manages them, is crucial for understanding the history of the American state.

Explaining the timing and volume of Congressional action is a daunting task.<sup>1</sup> Vast literatures attempt to explicate the logic of congressional policymaking. Some “theories” –e.g., so-called garbage can models –try to make a virtue of the difficulties, elevating the apparent randomness of the process into its central feature (Kingdon). In contrast, we show that simple and largely intuitive notions from rational choice institutionalism afford at least some purchase on the historical data. Briefly, we argue that a necessary condition for lawmaking is a degree of ideological congruence between the key oversight committees in the House and Senate. But ideological congruence is not enough: there must be a positive reason for Congress to involve itself in this technically difficult area, rather than rely on agents in the Executive to manage affairs. Ideological estrangement between the executive agent and the congressional overseers creates such an impetus. If a period of ideological congruence across the chambers coincides with a period of estrangement from the executive agency, the stage is set for a surge of legislation.

This extremely simple framework affords genuine purchase on the data, but there are severe limits on the traction afforded by such extremely decontextualized concepts. In our view, a new kind of history of the administrative state –one that is theoretically driven yet also sensitive to the internal logic of regulatory regimes –demands to be written. This new kind of political history has yet to find its Gibbon or Namier. But when it does, the ideas we explore may prove useful –at least, that is our hope.

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<sup>1</sup> Also important is explaining the content of the legislation. We view Erikson, McKuen and Stimson 2001 and Epstein and O'Halloran 1999 as particularly useful, in the macropolitics tradition. But timing and volume rather than content is our topic.



An issue that deserves a brief word is the scale of the analysis, the “forest vs. the trees” issue. Most of the previous work on the production of important legislation has operated at a highly macro level, aggregating across all policy arenas over a relatively brief period (the post-war era).<sup>2</sup> These studies try to map the forest as a whole. However, by operating at such a high level of aggregation, they can address only the grossest political features, e.g., whether one party controlled both houses of Congress and the presidency.<sup>3</sup> Conversely, most policy histories operate at a very micro level, emphasizing the fine grain of policymaking within circumscribed policy arenas. These studies don’t just examine the trees — they scrutinize individual leaves! We seek a middle ground, focusing on a single policy arena but examining the broad sweep of legislative activity within it. By operating at this mid-range, we can obtain much longer time series and employ more finely articulated theories of Congressional policymaking than most “macro” studies. At the same time, we can provide a more coherent picture of policymaking than ultra-fine-grained policy histories. But these advantages come at a cost. We give up the ability to say anything about the forest as a whole, nor can we address the shape of the leaves on specific trees. Readers can judge the costs and benefits of this tradeoff for themselves.

The chapter is organized in the following way. Section 2 sets the stage by presenting a highly schematic history of federal telecommunications policy. Section 3 presents the theoretical framework, and discusses its plausibility in this policy arena. Section 4 explains how we measure key variables and presents some basic information about them. Section 5 undertakes an empirical analysis of the data. Section 6 concludes. An Appendix presents data.

## **2 History of Telecommunications Policy**

### ***Early Formation of Regulatory Regime***

Though historical accounts of the regulation of telecommunications often begin with the 1934 Communications Act, which established the Federal Communications Commission (FCC), state and federal regulation of telephone, telegraphy, and radio preceded this historic enactment. From 1900 to 1917, there was rapid expansion of state regulation of telephone and broadcasting (Cohen, 1991).<sup>4</sup> The earliest regulatory laws were based on existing railroad or public utility commissions (PUCs) for telephone and telegraph service and commercial licensing for radio. Federal regulatory attention began with the Radio Acts of 1910 and 1912 which put broadcast industries under the jurisdiction of the Secretary of Commerce, and the Mann-Elkins Act of 1910 which gave the Interstate Commerce Commission jurisdiction over telephone and telegraph industries.

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<sup>2</sup> This line of research was initiated by Mayhew, and pursued in various forms by (inter alia) Adler et al, Binder, Coleman, Edwards et al, Kelly, and Erikson et al.

<sup>3</sup> The principal finding from these studies is that unified party control makes surprisingly little difference in the volume of significant legislation — though any differences at this level of aggregation can be important substantively.

<sup>4</sup> The first federal involvement in telecommunications was with research and development subsidies prior to in the 1840s and the first federal regulations were enacted in 1866 (the Post Roads Act).



Demand for regulatory intervention into the telephone industry came from at least three sources: 1) the public, who increasingly viewed the service as a necessity, a public utility that everyone should have; 2) the public nuisance caused by the technological issues of multiple telephone wires; and 3) industry who felt battered by the competitive pressures of the open marketplace. Early competition among telephone providers had led to absurd and dangerous conditions in many American cities, as the streets were clogged with hundreds of separate telephone wires strung from every building. Only a single wire is needed to transmit calls, but the wires themselves were proprietary to each telephone company. Since it is socially and economically inefficient to have more than one set of wires by which to transmit telephone messages, experts, policymakers, and industry leaders began to refer to telephone service as a "natural monopoly." These arguments helped gain support for state and federal laws that would protect the companies, like AT&T (nee Bell Telephone), that had invested private capital to build the nation's telephone infrastructure.

In exchange for this market position, AT&T made a commitment to providing fair and equitable telephone service.<sup>5</sup> The Mann-Elkins Act had very little, if any, opposition from industry. "On the contrary, AT&T supported, even advocated, regulation as a legal sanction for monopoly," reports Robinson, with CEO Vail arguing that regulation was needed to protect both carriers and public.

If there is to be state control and regulation, there should also be state protection— protection to a corporation striving to serve the whole community... from aggressive competition which covers only that part which is profitable. (Robinson, 1989: 7)

Even independent telephone companies, battered from the competitive pressures of the better-financed Bell Company, believed that regulation would bring the accompanied protections of market-entry control and price stabilization (Brock, 1981).

Despite the established regulatory regime, the ICC did not aggressively implement the Mann-Elkins mandate and rarely invoked its given powers. The agency concentrated more on their original charge to oversee railroad and transportation-related commerce cases. Only a handful of telephone regulation cases were brought before the ICC during its tenure over the area (Cohen, 1991; Robinson, 1989). The most important aspect of ICC regulation was to enforce a uniform system of accounting from telephone companies and to require periodic reports from AT&T as part of an ICC-mandated review for reasonableness of rates (Cohen, 1991). Later, these documents would provide a foundation for regulation and antitrust cases brought by the Justice Department in the following decades.

Mann-Elkins did not provide the ICC any authority over acquisitions and mergers. AT&T very aggressively took advantage of this lack of legal restraint and set out to purchase many of its competitors, until the Justice Department was able to halt these practices with the Kingsbury Commitment in 1913. This agreement, though, was

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<sup>5</sup> Other countries, such as France and Germany, dealt with the issue of inefficiency by nationalizing telephone service. The U.S. Postmaster recommended a nationalized telegraph system in its early years, because he thought it could never be a self-sufficient industry.



overturned with the Willis-Graham Act of 1921, which gave merger oversight power to the ICC. Since the ICC was equally lax in enforcing this power as their other regulatory duties, AT&T responded by resuming its aggressive purchasing strategy (Cohen, 1991).

Like telephone regulation, the Radio Act of 1927 was prompted by a "technological" crunch where existing structures could not handle the overwhelming demands created by the new technology. The Radio Acts of 1910 and 1912 permitted unlimited radio licenses, issued by the Secretary of Commerce. There was more demand than capacity, and many radio stations were established within a short time. The great influx of radio stations transmitting over open airwaves, sometimes in a haphazard and uncontrolled fashion, caused broadcast jamming by the early 1920s. In 1924, Herbert Hoover, then the Secretary of Commerce, tried to assert control of radio frequencies to alleviate the problems caused by broadcast jamming. The Supreme Court, though, upheld the Radio Act of 1912 in the *Zenith* decision, reasoning that this Congressional act to grant unrestricted licenses could not be claimed by the Executive branch office without further legislative action. It is estimated that when the Federal Radio Commission (FRC) was formed in 1927, over 700 licensed stations were operating only 90 available radio channels (Wollenberg, 1989: 66).

Congress enacted the Radio Act of 1927, which created the Federal Radio Commission (FRC) to act as a regulatory agent in the provision of licenses and other oversight of the new industry. The Act defined the power of government to regulate use of radio frequencies in the public interest. The guiding directive of the FRC's regulatory functions was "to uphold the public interest, convenience and necessity" as it related to radio broadcasting. As early as 1923, federal officials voiced the opinion that radio was essentially a public service that carried special responsibilities from broadcasters (Robinson, 1989). In the language of the time, the "public airwaves" were a natural resource which were essentially "borrowed" by broadcasters. Radio regulation occurred due to radio's natural scarcity of available broadcasting frequencies as well as a sense that the device could be used to protect or impinge on public safety. The 1927 Act codified these ideas. The fledgling industry generally accepted the public service obligation, and as such, nationalization of radio was never considered seriously in Congress or any other branch.

To prevent AT&T from dominating the new field of radio broadcasting, Congress explicitly divided the field into distinct niches with the Radio Act of 1927. The legislation made key distinctions based on the technical differences in these industries: telephone and telegraph-related wire or hardware would be regulated, while the content of communications via radio or other broadcast medium would not be.

The Radio Act of 1927 was not meant to be a comprehensive solution to the regulation of the radio industry. It was enacted as a temporary measure with only a one-year life span. The initial task of the FRC was to clean up the chaos caused by the *Zenith* decision, but it actually took several years for it to accomplish this (Wollenberg, 1989). (Congress subsequently extended its charter beyond the first year.) The FRC was charged with developing an orderly system to allocate and oversee license distribution, which they would then turn over to the Secretary of Commerce. The original intent was that the FRC's regulatory power would eventually revert to the Department of



Commerce, and the FRC would be continued as an independent quasi-judicial tribunal to oversee conflicts and revoke licenses. Nevertheless, when the FRC did not develop the system in time, the arrangement set down in 1927 proved permanent.

### ***New Deal, New Regime: The Communications Act of 1934***

The Communications Act of 1934 established the FCC as the federal agency with sole authority to regulate telecommunications and the broadcast industry with a vague mandate "to protect the public interest, convenience, and necessity." The essential structure and powers of the FRC were adopted as a permanent solution to regulate the industries of telephony and broadcasting. Some legal historians deride the creation of the FCC from the FRC as little more than a one letter name change (Robinson, 1989).

Yet, the timing of its creation cannot be dismissed. Franklin D. Roosevelt, newly in office, made a specific request of Congress to organize a new body to control both broadcasting and telephony, although technically there is little reason to do so. There was no prevailing economic or technological rationale for creating this body in 1934. Neither did the Communications Act did not add new regulatory powers, although a provision to expand the oversight of mergers was considered by Congress. (Vigorous AT&T opposition blocked it (Robinson, 1989)). In retrospect, experts have ascribed the primary motive for establishing the FCC to the claim that the previous structures, oversight by the ICC and the FRC, were not sufficient. The ICC, in short, was too busy with railroad and other transportation-related commerce to pay much attention to telecommunications and the FRC was too slow in adopting a new licensing system. The status quo regulatory powers were not considered deficient, only unused. The explanation is somewhat unsatisfying given the broad delegation of authority and does not account for the timing of the enactment. Could sheer politics— namely that Franklin D. Roosevelt wished to remove Hoover appointees and replace them with his own— provide a better explanation?

### ***Regime Status Quo (1934-late 1950s)***

Even though the new agency claimed no new federal powers, the establishment of the FCC itself did prove to be a significant change. There was now an attentive expert panel, if not exactly a watchdog, which took seriously the role of regulating these industries in the name of the public interest. Over the next half-century, the ebb and flow of FCC control would be related to court challenges and decisions, anti-trust legislation of Congress (Cantor and Cantor, 1986), and technological and economic changes in the industry of telecommunications.

Though FCC regulations became the norm for defining federal regulations in telecommunications, the Justice Department was also involved in policing AT&T in regard to the antitrust implications of its monopoly. The threat of antitrust rulings from the judicial branch remained throughout the twentieth century even as other branches of government supported the AT&T monopoly model.

World War II and the boom-period afterward was an important time in the development of telecommunications. Through the Defense Department, there was



extensive public support for private research and development of telecommunications tools, including microwave communications, computer systems and satellite technologies (Cantor and Cantor, 1986). In terms of congressional activity, though, the status quo was unchallenged; there was a long lull in Congressional lawmaking on telecommunications in the 1940s and 1950s. This was due, at least in part, to the broad support enjoyed by AT&T and the pro-business stance of President Eisenhower, who on several occasions called the AT&T monopoly, a "national resource" (Rosentiehl, 1997).

### ***Pushing the Envelope: Technological and Political Shifts (late 1950s-1960s)***

Still technological advances pushed the status quo points even if political concerns did not. New technologies of microwave and satellite communications, as well as cable television and the broad acceptance of network television were all developed in the late 1950s.<sup>6</sup> The FCC claimed jurisdiction over these new industries, and was largely unquestioned in doing so, even though the 1934 Act did not expressly support it (Robinson, 1989). Another development was the waning of the previously monolithic support for market leader industries in telephone and traditional broadcasting, both in the FCC and Congress. (The Justice Department had never been strongly aligned with industry.)

Though AT&T and national network broadcasters still had great regulatory advantages, several policy decisions from the FCC, Congress and the Department of Justice signaled changes in political support. First, the 1959 FCC ruling, known as the *Above 890 Decision* (a reference to the frequency threshold of microwaves), allowed private licensing of microwave technology and mandated free interconnection with the existing telephone system (Zarkin, 1998). This allowed MCI, the first major competitor to AT&T in over three decades, to offer enhanced telephone services, ushering in the potential for competition.<sup>7</sup> Second, Congress enacted several laws that promoted "non-network" television by supporting community television stations, by requiring all television sets to have capacity for UHF and VHF channels, and by creating and funding educational television and radio via the Public Broadcasting Service. Third, the Justice Department negotiated the Consent Decree of 1956 that broke up the AT&T's monopoly over the manufacture of telephone equipment (Rosentiehl, 1997). The regulatory regime of the 1940s and 1950s that featured FCC rulemaking, monopolistic industry dominance, and little Congressional lawmaking was pushed on both technological and political fronts.

In the midst of the Cold War, still broader political concerns influenced support of the regulatory regime. Soon after with the landmark FCC microwave decision, Congress enacted the Communications Satellite Bill of 1962, which represented a congressional

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<sup>6</sup> Both television and microwave technologies can be used for long-distance communications and were threatening to the AT&T monopoly.

<sup>7</sup> MCI, founded in the early 1960s, used microwave technology to provide better telephone service to business subscribers. It was not until the Telecommunications Act of 1996 that coaxial cable restrictions would be lifted to allow cable companies the ability to transmit telephone service.



mandate to open and promote private market investment in satellite-based communications. The push for this bill, one of the first noteworthy laws since the 1934 Communications Act, took place when Congress and the American people were concerned about the nation's ability to maintain technological superiority over the Soviet Union, fueled by the to the launch of Sputnik in 1957.<sup>8</sup> These events arguably spurred members of Congress to reconsider how well the federal government was supporting technological advancements and possibly to re-think how well the old alliances and state-supported monopoly of AT&T served the public interest.

### ***Regulatory Framework in Flux: the 1970s, leading to the 1982 Break-up of AT&T***

In the 1970s, there was a renewed interest in reforming telecommunications policy more broadly. Founded in part on the technological advances of the 1960s, policy experts,<sup>9</sup> regulators and legislators no longer unanimously held state-sanctioned monopolies in telecommunications to be in the public interest. Demands for regulatory change came from consumer advocates, who were concerned about telephone rates in a time of rising inflation (Crandall and Waverman, 1995), start-up industries that wanted to enter markets untapped, but controlled by AT&T, and the Department of Justice. Within Congress, committee reforms of 1974 had created specific House and Senate subcommittees for communications policy and increased the number of research staff available to legislators in this policy area (Rosenstiehl, 1997). To many legislators, (the Chair of the House Subcommittee, in particular) competition and deregulation were now seen as more in the public interest than the preservation of the AT&T monopoly, in contrast to the policies of previous decades. Nonetheless, very little congressional legislation was passed to enact this change in philosophy. While the FCC took steps to increase competition in various sectors of the broadcast and telephone industries, Congress chose inaction on several competing telecommunications bills. A pro-AT&T bill reaffirming the 1934 Communications Act was introduced in 1976, with support of the Department of Defense, state utility regulators, and two large unions. Yet, the Subcommittee chair refused to accept arguments that emerging competition should be halted. Several bills to introduce competition were introduced in late 1970s (HR 13015, HR3333, HR 6121), but all died, facing strong AT&T opposition. One 1980 bill failed because of Judiciary Committee opposition in light of the impending result from the Department of Justice and AT&T lawsuit.

The Department of Justice (DoJ) and the federal courts were more aggressive in their efforts to open telephone markets to competition. The centerpiece of the judicial branch approach was the anti-trust case brought against the AT&T in 1974. The result eight years later was the break-up of the AT&T monopoly into subsidiary firms. In 1982, AT&T settled with the Department of Justice signing the Modified Final Judgement (MFJ) agreement, which broke AT&T up into eight large firms. In the agreement, AT&T divested from its local telephone companies (which became known as the

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<sup>8</sup> The House Committee on Science and Astronautics was also created in 1959, although it did not sponsor this legislation.

<sup>9</sup> Experts from right-leaning (The American Enterprise) and left-leaning (Brookings Institute) think tanks were in relative agreement on this (Rosenstiehl, 1997).



Regional Bell Operating Companies (RBOCs) or more informally the Baby Bells). AT&T was allowed to retain the long distance, manufacturing and data processing components of its business. The Baby Bells were granted a local telephone service monopoly, but could not enter the industries allocated to AT&T. The rationale of the suit was firmly in the usual style of telecommunications regulation, dividing each technological niche into its own sphere and banning any cross-ownership.

During the years of the Justice Department lawsuit, Congress had consistently been considering bills to increase competition in telephone, signaling that AT&T's core support there was eroding. The FCC, as demonstrated by their expert testimony to Congress during this time and various technical reports that were issued, also began to oppose AT&T's complete monopoly (Rosenstiehl, 1997). Even earlier than this, the settlement of a private suit with MCI (*MCI v. FCC, D.C. Cir., 1977*) forced AT&T into open competition in long-distance service. Still, the Department of Justice solution to AT&T's hold on the market was a radical departure from existing policy, prompting some in Congress to challenge the DOJ authority (Rosenstiehl, 1997). Public opinion about the break-up was decidedly mixed, and policy historians agree that there was never a public outcry against AT&T's monopoly status to prompt the drastic action (Hudson, 1997; Crandall and Waverman, 1995). The aftermath of the AT&T breakup left Congress and the FCC in new regulatory terrain.

The break-up of AT&T, in some ways, mirrors a technological paradox that the regulatory regime had created. Since the 1920s, a "divide-and-conquer" strategy of cross-ownership bans were used to keep market leaders of a technological area in check. AT&T, for instance, was not allowed to own or distribute messages via cable television systems, although it has been possible since the 1950s. Technological convergence of cable, fiber optics, and computer communications in the 1990s have undercut the regulatory positions. The FCC, aware of these developments, began to issue reports to reconsider the cross-ownership ban approach (Zarkin, 1998). Through the 1980s and 1990s, the FCC has taken actions that departed from its traditional efforts to separate industries into different regulatory niches. It promoted policies that would take advantage of the integrated technologies of telephones, video telephones, cable TV, and computers (Zarkin, 1998).

### ***A New Regime? The Telecommunications Competition and Deregulation Act of 1996***

The Telecommunications Competition and Deregulation Act of 1996 (referred to as the Telecommunications Act of 1996) represents a comprehensive reworking of the regulatory regime in telecommunications. Demand for increased competition in the telecommunications industry and other regulatory changes came from several angles.

First, the Clinton Administration, led especially by Vice President Al Gore, placed modernization of the U.S. telecommunications infrastructure as a high priority on their agenda. Dubbed the National Information Infrastructure (NII) initiative, the Administration sought public financing for special projects as well as reforms to spur private industry activity through competition and grant making.



Second, telecommunications and the information industries had become a large and highly visible part of the U.S. economy, estimates ranging from 10 to 20 percent of total (Congressional Quarterly, 1995). Local telephone business was the single largest segment of this market (approximately \$98 billion in 1994), with long-distance service second (accounting for \$65 billion), and cable TV operations a distant third (\$23 billion). Computer and Internet-related communications and commerce, though a relatively small share, was one of the fastest growing segments of the economy, with some estimates of its use and valuation rising more than 200% a year since 1995.<sup>10</sup> In this climate, both start-up industries and educated consumers were advocating for regulatory maneuverability so as to market more advanced high-tech products and services.

Third, in the absence of Congressional action, the courts, FCC regulators, and the states were removing regulatory barriers to competition, but in a piecemeal fashion (Congressional Quarterly, 1995: 4-4). Federal courts had ruled that Congress improperly blocked telephone companies from entering the cable industry, and the Supreme Court was reviewing this case in late 1995. The FCC was also "pro-reform." For instance, the agency had been devising ways to encourage local Bells to experiment with videophone services and other non-telephone services and had been promoting open competition in the Internet for the past several years.

Last, but not least, several members of Congress had been crafting legislation that would promote increased competition in the telecommunications. Both the House and the Senate of the 103<sup>rd</sup> Congress considered several other telecommunications bills that would have gradually removed regulatory barriers to competition, but those bills were never reported out of committee. In the 104<sup>th</sup> Congress, the historic and sweeping reform law was passed in the first session.

Enacted by a Republican Congress, and supported by the Clinton Administration, the Telecommunications Act of 1996 affected every segment of the telecommunications industry: telephone, cable TV, broadcasting, and computer communications. The primary mechanism of deregulation in this Act was to reverse the long-standing policy of placing regulatory barriers between each of the niches in the telecommunications industry. In the past, long-distance telephone was separated from local telephone service (via the 1982 MFJ), cable TV was divided from telephone (via FCC policy and the teleco-cable ban of 1974), and telephone companies were prohibited from offering enhanced services (Congressional Quarterly, 1995), to name a few restrictions.

Once, technological barriers separated these industries, and natural monopoly arguments were used to establish a protectionist monopoly system. Over the years, especially with advancements in digital technology and computers, these barriers no longer existed. Some reformers argued that this regulatory scheme had become technologically and economically irrational. They argued that open competition would decrease prices, promote innovation, such as the video telephone, and offer consumers

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<sup>10</sup> The Internet has been called the fastest growing technology ever. Though unknown to most people a decade ago, the FCC now estimates that one-third of the nation's households regularly use the Internet and the "Internet Economy" generated over \$300 billion in revenue. (Oxman, FCC Working Paper No. 31, 1999)



the added value of integrated communications solutions. Critics of the legislation countered that removing regulatory safeguards would undermine the universal service goals of telephone and spur the development of huge communications and broadcasting conglomerates, which would eventually control prices and content in the marketplace.

Rather than reducing the need for the FCC, the new legislation has provided a new charter and a raft of regulatory questions to address. The FCC is still the primary federal interpreter of telecommunications regulations and the chief agency in charge of the law's smooth and consistent implementation. The FCC, for instance, has to "grant permission" in order for a previous monopolist to enter a new field. Plus, the agency was given new roles in order to assure that competition would not adversely affect the public interest. Specifically, the FCC was ordered to convene federal-state boards to assure the maintenance of low-cost telephone service (universal service) and to oversee that no state or local regulations preempted the federal law to open competition (Congressional Quarterly, 1995). The Telecommunications Act of 1996 also mandated that when state and federal policy conflict, the FCC will determine which policy better serves the national interest. Previously, the FCC only held power over interstate telecommunications matters, such as national broadcast standards and long distance telephony, with state bodies overseeing local TV rules and local telephone service.

Historically, telecommunications regulation has always favored private sector ownership and control of the industry, from the government's explicit support of the AT&T monopoly in the early twentieth century to the FCC's support of mergers and acquisitions that have scaled back the impact of the AT&T break-up in the 1990s.<sup>11</sup> The Telecommunications Act of 1996 continues this tradition. As in 1934, private ownership in 1996 was justified as the best means to serve consumers. But now, competition rather than the protection of a "natural monopoly" is advanced as the better means to advance technological innovation, improve services, and lower costs. How well this will work in practice remains uncertain.

### **3 The Politics of Telecommunications Policy**

#### ***A Theoretical Framework***

The theoretical ideas we employ have become common currency among rational choice institutionalists, though no one has implemented them exactly this way before (at least to the best of our knowledge). In essence, we combine standard ideas from the spatial theory of policy bargaining, with standard ideas from the theory of political delegation, to explain surges and slumps in legislative productivity.

In simplest form, the spatial theory of bargaining can be illustrated via Figure 0.<sup>12</sup> The line in the figure is a one-dimensional policy space, a convenient way to represent many policies. The points marked *H* and *S* represent the "ideal points" of two actors, e.g., the chairmen of the House and Senate Commerce committees. These points indicate the

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<sup>11</sup> The *New York Times* article, January 17, 1999: A.1

<sup>12</sup> For more carefully articulated models with relevance to this setting, see Krehbiel, Brady and Volden, Cameron, and Ferejohn and Shipan, among many others.



most preferred policies of the two chairmen. We assume the value to a chair of other policies declines proportionately with distance from her ideal point.

The interval between the two ideal points is known as the *pareto set*, and it plays an important role in the analysis. Note that, for any given point outside the pareto set, one can find a point within the pareto set that *both* chairs prefer. On the other hand, given a point within the pareto set, it is impossible to find a point that both prefer. Suppose the two chairs bargain about changing policies, with either free to propose any change she wishes. But suppose further that both chairs must agree on the change if it is to occur (as the rules of Congress assure). Then it seems reasonable to believe that, over time, the two chairs will replace policies outside the pareto set with ones inside them. But once a point has entered the pareto set, it will be invulnerable to further change.

This exceedingly simple setup affords one way to think about "policy windows." For policies outside the pareto set, the "policy window" is open. For policies inside the pareto set, it is closed. Suppose that new "policies" arrive randomly throughout the policy space, as new problems arise within a dynamic, industrial society. If the ideal points of the two players are close, then the pareto set is small and the "policy window" for the new problems is apt to be open. But if the ideal points of the two players are far apart, then the new policy may well lie within the pareto set — the policy window is apt to be closed. Thus, simple notions of bargaining suggest that ideological agreement between the House and Senate chairmen of relevant committees is apt to be necessary for much legislative action.

In the modern administrative state, Congress directly manages few areas. More typically, it delegates authority to an agent in the executive. In the last few years, political scientists have devoted a great deal of thought to the dynamics of delegation.<sup>13</sup> Again, we will employ only a sketch of these interesting ideas. In Figure 0, suppose that an agency has an ideal point outside the pareto set. It would seem that the agency must set policy within the pareto set to avoid triggering congressional reversal of its policy. However, information costs or other transaction costs for the chairmen may give the agency a degree of "wriggle room." If so, the chairmen may be reluctant to delegate to an agency whose ideal point lies far outside the pareto set, as this agency will face strong incentive to exploit the "wriggle room" and bend policy in its favor. Thus, when the agency is ideologically distant, the chairs may find it more attractive to direct policy themselves. Hence, more legislation. Somewhat similarly, if an agency lies outside the pareto set, attempts to "cheat" on policy, but is found out by the chairs, then the two chairs will be able to agree on remedial legislation altering the policy of the agency. Both arguments suggest that legislation is apt to be more frequent as the agency lies further outside the pareto set. And both arguments suggest that the key distance is from the agency's ideal point to the *nearer* of the two committees, since it is the willingness to act of the "more friendly" of the two chairs that is the real constraint on legislating.

Where is the President in this picture? At one level, the president is another veto player. But perhaps even more crucially, he is an administrative one as well. If the

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<sup>13</sup> Among the more interesting studies are Kiewiet and McCubbins, McNollgast, Snyder and Weingast, DeFigueirido and Tiller, Epstein & O'Halloran, and Huber & Shipan.



president shares the ideology of the key congressional actors, then his appointments to the agency will bring it closer to the preferred ideological stance of the congressional overseers. In addition, if the president has any direct administrative authority, he may use it to eliminate the agency's ideological "cheating" or "wriggling," if he shares the ideology of the chairs. In either case, ideological conformity between the chief executive officer of the administrative state and key legislative actors is apt to decrease direct legislative intervention in policy making, at least in areas where Congress prefers to delegate than legislate directly.<sup>14</sup> Epstein and O'Halloran provide evidence that this is apt to be more likely in technologically difficult areas, like telecommunications.<sup>15</sup>

In sum, these simple ideas suggest that legislation is more likely to be *possible* if the two chairs are ideological soul mates. But even so, the possibility will produce real legislation only if the two chairs have a positive incentive to act. In an area in which Congress prefers to delegate policy making, an impetus to action is more likely if the relevant agency is ideologically estranged from the chairs, and if the president is ideologically untrustworthy as well.

### ***Congress and the FCC***

Are these ideas at all plausible in this policy arena? The history of the relationship between the FCC and Congress strongly supports a principal-agent dynamic. In the first place, the FCC is not a "darling" agency, but one that has often been browbeaten by Congress (Ember (1971), Krasnow and Longley (1973)). During its 65-year history, the FCC has often been led by a Chairman from the same party as the President, with a majority advantage (though usually by one vote only) of that party among the commissioners. In times of divided government, this often puts the agency at odds with Congressional leadership.

Krasnow and Longley's (1973) provide a detailed analysis of the relationship between the FCC and Congress in their book, *The Politics of Broadcast Regulation*. Detailing several ways in which Congress influences the FCC, they conclude that the most obvious, control by statute, is the least employed. More often non-statutory control is used, including oversight and review of all agency budgetary expenditures, the use of investigations, and the watchfulness of the House and Senate Commerce committees, other committees with vested interests, and individual congressmen and staff. In Krasnow and Longley's account, Congressional involvement in directing and overseeing broadcast regulatory policies takes place on an "almost daily" basis, even in times of relatively little legislative production. Former Chairman Newton Minow is quoted as saying, "When I was Chairman, I heard from Congress about as frequently as television commercials flash across the screen."

Within Congress, the most important touch points for the FCC is the House and Senate Commerce Committees, particularly their Chairmen. The authors cite a highly placed

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<sup>14</sup> This argument stands the normal "veto player" argument on its head. Obviously, it applies only to areas in which Congress prefers delegated rather than direct policy making.

<sup>15</sup> In addition see Price, which provides evidence on committee policy making in the telecommunications arena.



FCC staff member who explained, "the word of Senator Warren Magnuson, Chairman of the Senate Commerce Chairman, is practically law to the FCC" (Krasnow and Longley, 1973: 53). Legislators also use inaction when policy issues are too politically acute and filled with conflict to be decided with a clear vision. In these cases, the administrative decisions fall to the FCC, but it does not make the agency immune to criticism should their interpretations prove unsatisfactory to Congress.

Furthermore, Krasnow and Longley suggest that the National Association of Broadcasters concentrates its lobbying efforts on Congress, not the FCC directly. Former Vice President and General Counsel of the National Association of Broadcasters, Paul B. Comstock notes

Most of our work is done with congressional committees. We concentrate on Congress. We firmly believe that the FCC will do whatever Congress tells it to do, and will not do anything Congress tells it not to do. (Krasnow and Longley, 1973: 56)

This is not to say that organizations, especially large firms and industry organizations, do not lobby the FCC directly. They do. Indeed, a recent study by de Figueiredo and Tiller (2000) analyzed over 900 lobbying contacts between industry and the FCC, covering over 100 issues, and occurring in just the early portion of 1998.<sup>16</sup> The evidence suggests that industry lobbyists seek to influence policy decisions at both ends, the FCC and Congress.

It is important to note that telecommunications policy, and the FCC, is also influenced by the Judiciary and the Justice Department, both of which have been active in oversight since the early days of telephone and radio regulation, predating the Communications Act of 1934. The threat of judicial review shapes FCC rulemaking, above and beyond just the cases brought into court. (The existence of the FCC itself, since it involves broad delegation of Congress, has been under court challenge.) As Shapiro (1988) and others have noted, every decision and administrative rule is subject to question, thus affecting how those laws are drawn in the original. In addition, the judicial branch is not always in step with Congress, adding another layer of complexity to the political environment that the FCC must maneuver.

Caveats aside, the FCC has substantive policymaking authority and makes many of the rules and regulations that affect the telecommunications field. Its jurisdiction and administrative capacity far exceed the original mandate of the Communications Act of 1934 (Paglin, 1989). Nonetheless, the Commission fulfills its mandate to be information gathering for Congress and to deliberate on broad policy matters related to preserving public interest of telecommunications. Over its history, the FCC has sometimes taken a far-reaching and activist role, but it remains, ultimately, tethered to Congress and the executive.

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<sup>16</sup> As one of the first large-scale empirical studies to analyze actual lobbying events (rather than by proxy via PACs contributions or by case study), they found that large firms' behavior is consistent with economic theories of transaction costs.



## 4 Measurement

In this section, we discuss how we measure the key variables, and provide some basic information about them.

### *The Laws and Legislative Productivity*

We use a broad definition of telecommunications policy and include legislation related to broadcasting (radio, television, cable television) and communication devices (telegraph, telephone, wireless and Internet/computer) that have been widely used in the twentieth century. Laws were identified by reading through lists of laws in the *Statutes at Large* (1900-1944, Table of Contents Page) and *Congressional Quarterly* (1945-1998, Lists of Laws) and by cross-checking the lists via the index for keywords related to telecommunications. Expert sources (Compaigne (1984), Kahn (1968), Paglin (1989), Brock (1981), Cohen (1991), Rosentiehl (1997), Zarkin (1998), Cantor and Canter (1986), Teske (1995)) were also used to verify that no major laws were omitted and to rank laws by historical significance. All telecommunications legislation was coded to identify historic laws, major laws, ordinary laws and minor ones. Major laws were identified in two ways: 1) by consensus of expert opinion, including Mayhew's (1992) list; 2) by coverage in *Congressional Quarterly* after 1945 (number of pages written about final passage of law). Prior to 1945, the length of the law (number of pages in the *Statutes at Large*) was also considered, since more important laws tended to be of longer length. The following definitions were used:

**Historic (Super A):** Nominated by consensus of expert judgment and by extensive coverage in *CQ Almanac*. The Communications Act of 1934 and the Telecommunications Act of 1996 are both unanimously considered by policy experts in the field as the landmark legislative acts in telecommunications policy. The 1934 law created the FCC and the modern regulatory framework that was upheld by the Supreme Court even though it held delegated authority of Congress. The 1996 law changed the regulatory framework to support more competition and deregulation and had far-reaching effects into every area of telecommunications. (Its final coverage in *CQ* was 27 pages.)

**Major (A/B):** Mayhew's Sweep One and Sweep Two public Laws (unless content of law was not primarily telecommunications), mentioned in either NYT or WP year-end Round-ups, nominated by 2 or more telecommunications policy experts, or laws having coverage greater or equal to 5 pages in *CQ Almanac*.

**Ordinary (C):** All other public laws mentioned in *CQ Review*, or with at least 1.5 pages of coverage in *CQ Almanac*, or nominated by at least one telecommunications policy expert listed above.

**Minor (D):** All other public laws discussed in *CQ Almanac* (not just inclusion in the list, but some fraction of a page written about the law); prior to 1945, any



law judged by the coder<sup>17</sup> to have at least some minor policy impact but not nominated by a policy expert.

**Very minor (E):** Any other law identified by the list of laws but had no other reference by sources and no new policy impact. For instance a renewal of a "minor" law would be ranked "very minor." (Commemorative laws were excluded entirely.)

Figure 1a presents the number of telecommunications laws (N=162) enacted in each Congress from 1900-1998 with several important laws noted to give points of reference. The figure indicates three peaks of legislative activity over the time period, in 1910 with the Mann-Elkins Act, the early 1960s with the Communications Act of 1960 and the Communications Satellite Act of 1962 (COMSAT), and lastly, increased activity in the more recent congresses (99<sup>th</sup>-105<sup>th</sup>), which occur after the break-up of AT&T in 1982.

For purposes of analysis, several dependent variables are possible, e.g., raw counts of legislation by significance category per Congress, or the probability of a significant enactment per Congress.<sup>18</sup> In this chapter, we employ a somewhat different variable, a weighted scoring of laws based on *Congressional Quarterly Almanac*'s coverage of enactments. More precisely, from the 81<sup>st</sup> to 105<sup>th</sup> Congresses, the dependent variable is the sum of *Almanac*'s coverage of telecommunications enactments. For this time period, we regress the number of "Super A's," the number of "Other A or B's," and the number of "C's and D's" on the total coverage. This regression yields weights converting enactments in different categories into page coverage.<sup>19</sup> Then, we use the weights and the actual number of enactments in each significance category to create "expected CQ coverage" back to the beginning of the time series.

Figure 1b shows the dependent variable, weighted laws, over time. The circles indicate each data point. The dotted line indicates the mean of the data (4.8 per congress). In general, the amount of Congressional lawmaking in the telecommunications area is rather low, reflecting a high degree of delegation to the FCC after 1934. However, there have been three bursts of policymaking activity: 1934, 1959-1971, and 1991-1997.

### ***Inter-Committee Proximity***

Our discussion of "theory" suggested that the ideological distance between the relevant committees in the House and Senate would affect the volume of significant enactments. We implement this variable as the distance between the estimated ideal points of the chairmen of the Commerce Committees in each chamber, using the first dimension of Poole's common space NOMINATE scores. NOMINATE scores, based on a scaling of roll call votes in the floors of each chamber, are one of the most frequently used measures of congressmen's political ideology (Poole and Rosenthal). Roughly speaking,

<sup>17</sup> Grace R. Freedman investigated and coded all the legislation.

<sup>18</sup> Most previous studies use the former, focusing on important laws (Adler et al, Coleman, Mayhew). Binder uses the ratio of significant enactments to mentions of significant bills in the *New York Times*.

<sup>19</sup> The estimated regression is:  $CQ = -1.5 + 28.6 * SuperA + 5.7 * OtherAB + .9CD$ , with respective *t* values of -.9, 5.8, 2.8, and 2.6,  $R^2 = .67$ , 21 degrees of freedom. Then, estimated CQ Coverage was taken to be:  $25 * SuperA + 5 * OtherAB + .5CD$  —so the significance weights were in the ratio of 1:10:50.



the scores are bounded by -1 and 1, with negative scores being "liberal" and positive scores being "conservative." The common space scores use the movement of House members to the Senate to standardize the scaling across the two chambers, so that scores for House members and Senators are comparable.

Figure 2 displays relevant data. The top panel in the figure shows the actual locations of the House and Committee Chairs in NOMINATE space. The middle panel shows the (signed) distance between them. (If the distance lies below zero, the Senator chairing the Senate committee is more conservative than the Representative chairing the House committee.) As an aid to the analysis in the next section of the chapter, we standard this distance measure so that the closest chairs in the series receive a score of "1" and the most distant chairs in the series receive a proximity score of zero.<sup>20</sup> The standardized proximity score is shown in the bottom panel. The mean value of the standardized proximity score is .72.

### ***Committee-Agency Distance***

Our theoretical framework suggested that the distance between the responsible agency and the oversight committees might play an important role. We operationalize this variable in the following way. First, we identified all the commissioners of the Federal Radio Commission (1927-1934) and the FCC (post-1934) and the presidents who appointed them. As a proxy for the commissioners' own ideology, we used McCarty's pseudo-NOMINATE scores for the appointing president.<sup>21</sup> Then, we identified the ideology of the median commissioner. If the median commissioner lay outside the interval on the NOMINATE scale bounded by the House and Senate chairs, we calculated the distance between the median commissioner and the most proximate of the two committee chairs. In this case, the (absolute) distance became the variable. However, if the median commissioner lay within the interval, we scored the variable as zero. For the period before 1927, we proceeded in a similar way, but used the score imputed to the Secretary of Commerce (that is, McCarty's pseudo-NOMINATE score for the sitting president.)<sup>22</sup>

Rather obviously, the likelihood of measure errors means that this measure needs to be taken with a grain of salt – or perhaps a whole fistful! Nonetheless, we hope that large scores for the variable indicate that the preferred policies at the FCC are likely to be rather discordant with those favored by both committee chairs. Conversely, we hope that low scores indicate that the preferred policies at the FCC are not likely to be very discordant with those supported by both committee chairs.

Figure 3 displays the data. The top panel displays the imputed position of the median FCC commissioner in NOMINATE space (or, prior to 1927, the imputed NOMINATE score for the Secretary of Commerce.) The bottom panel shows the variable of direct interest, the imputed distance of the median agency commissioner (or, Secretary of

<sup>20</sup> Proximity score = (Max absolute distance – actual absolute distance) / (Max absolute distance – min absolute distance)

<sup>21</sup> McCarty calculated these using each president's requests to Congress, treating the president as if he were a House member (private communication).

<sup>22</sup> A plausible alternative here would be to calculate the median for the ICC.



Commerce prior to 1927) from the nearer edge of the pareto set between the two committee chairs. As shown, the variable takes large values at the beginning of the series (the 56<sup>th</sup> Congress), around 1912 (the 61<sup>st</sup> and 62<sup>nd</sup> Congresses), in 1933-34 (the 73<sup>rd</sup> Congress), in the early-1970s (the 92<sup>nd</sup>-94<sup>th</sup> Congresses), and during the 1990s (the 101<sup>st</sup>-105<sup>th</sup> Congresses). The very high values in the 56<sup>th</sup>, 61<sup>st</sup>, and 62<sup>nd</sup> Congresses may be somewhat deceptive. The commerce committees were composed of conservative Republicans, but the imputed scores for the Secretary of Commerce were even more conservative (that is, the Secretary under McKinley in the 56<sup>th</sup> Congress and the Secretary under Taft in the 61<sup>st</sup> and 62<sup>nd</sup> Congresses).<sup>23</sup> Hence, the very large scores for agency distance in those congresses.

## 5 The Production of Telecommunications Laws

### *Data Display*

Figure 4 displays the data, as a "first-cut" in revealing structure. The upper left hand panel is a scatter plot of weighted laws and inter-committee proximity. A highly flexible, non-parametric scatter plot smoother has been added, to help detect structure in the data. In some respects, the figure is promising. As theory led us to expect, the production of laws can be quite low even when inter-committee proximity is high. However, the *only* times production soars is when inter-committee proximity is high. And conversely, when inter-committee proximity is low, law production is low. Because proximity is only a necessary condition for production, the average relationship between proximity and production can be ambiguous, and the flatness of the scatter plot smoother shows that on average the actual relationship is quite weak.

The upper right hand panel examines the relationship between law production and agency distance. The data suggests a positive relationship, though not a dramatic one. However, the apparent relationship may be driven by a few influential data points.

The lower left hand panel examines the relationship between law production and the interaction of inter-committee proximity and agency distance. The interaction will take high values only when both variable take large values; it will be low when either or both are low. In light of the theoretical discussion, this is the critical scatter plot. Again, the data suggest a positive relationship, but not a dramatically strong one.

Finally, the lower right hand panel examines the relationship between inter-committee proximity and agency distance. On average, proximity takes its largest values when agency distance takes moderate values.

The initial cut in the data display is relatively promising. However, the bivariate scatter plots do not entirely capture the ideas discussed in Section 3. A better perspective is offered in Figure 5. This figure examines the relationship between weighted laws and agency distance, controlling for the inter-committee proximity. In the figure, the lower

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<sup>23</sup> In the 62<sup>nd</sup>, the chair of the House commerce committee was a rather liberal Democrat. But the measure focuses on the more proximate of the two committees.



left hand panel examines production and agency distance, at low levels of inter-committee proximity. Inter-committee proximity is greater in the lower right hand panel, greater still in the upper left hand panel, and high in the upper right hand panel. In the first three panels, there appears to be a weak positive relationship between production and agency distance. But, in the upper right hand panel, where inter-committee proximity is great, the relationship becomes dramatically positive. In other words, when inter-committee proximity is extremely high, estrangement from the regulatory agency appears to lead to a burst of legislative production.

An interesting possibility is that creation of the FCC might dramatically alter the nature of legislative productivity in telecommunications possibility – the New Deal might mark a regime shift. If so, relationships might be quite different before 1935 and after. However, equivalent data displays (not shown) do not suggest at a regime shift. The relationships in the figures do not vary much, even if one breaks the data into two groups, pre-1935 and post-1935.

### ***Statistical Models***

Given the relationships uncovered in the data display, moving to statistical models seems justified – though the relative weakness of the relationships should temper expectations.

Table 1 reports results from six simple linear regression models. Models 1 and 2 examine the relationship between legislative productivity, as measured by weighted laws, and inter-committee proximity and agency distance, respectively. Model 1 performs poorly: by itself, inter-committee proximity is a poor predictor of legislative productivity. In contrast, in Model 2, the tension between the oversight committee and the agency (as measured by agency distance) is a much better predictor of legislative productivity. The variable is statistically significant at the 1 percent level and is able to capture about 12% of the variance in legislative productivity.

Model 3 utilizes both variables, in additive form. This model performs far better, with both variables statistically significant at conventional levels. Together, they capture about 18% of the variance in the dependent variable. Model 4 adds the most beloved variable in the literature, unified party government.<sup>24</sup> The variable has the negative sign that principal-agent theory might lead one to expect, but it is not statistically significant at conventional levels. However, it does seem to add modestly to the model's fit. The model accounts for 20% of the variance in the dependent variable.

Model 5 examines the relationship between legislative productivity and the interaction of inter-committee proximity and agency distance. Both the theoretical discussion and the initial data display suggest that this is the key variable. As shown, the variable is highly statistically significant, at the .002 level. This one variable model is able to account for 19% of the variance in legislative productivity.

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<sup>24</sup> Coded 1 if the House, Senate, and President were all controlled by the same party, and 0 otherwise.



Model 6 adds the unified government variable to Model 5. Again, it is not statistically significant at conventional levels but it does seem to add modestly to the model's fit. This two variable model accounts for 21% of the variance in legislative productivity in telecommunications policy, over a time period of a century.

The regressions in Table 2 return to the possibility of a New Deal regime shift. The first two columns reproduce Models 5 and 6. Then, Models 7 and 8 are identical but run only on the data for 1899-1934. Models 9 and 10 are identical but run on the data for 1935-1998. Comparing Models 7 and 9, the coefficient on inter-committee proximity:agency distance increases by about 50% in the post-New Deal period, relative to the pre-New Deal period. Comparing Models 8 and 10, it increases by about one-third. In both cases, the models fit the post-New Deal period less well than in the pre-New Deal period, perhaps suggesting greater volatility or the introduction of new sources of variation. But the difference in size of the key coefficient is not large relative to its standard error, so that the apparent difference may well be illusory. A Chow test affords a formal way to test for a regime change. Such a test finds no evidence of regime shift – the apparent change is entirely compatible with random variation.<sup>25</sup> We conclude that no regime shift took place. To the extent that the models work at all, they work equally well before and after the New Deal.

### ***Predictions***

Figure 6 examines the predictions of the model against the historical record. (We use Model 6 for this purpose). The top panel shows actual observations (the points), and the model's predictions (the line). The lower panel shows the corresponding (standardized) residuals. Since the  $R^2$  for this extremely simple model is only .21, it is not surprising to find recurrent discrepancies between the model and the data. However, the bottom panel identifies six egregious mistakes, which fall into three classes.

First, the model predicts high levels of legislative production in the 73<sup>rd</sup>, 102<sup>nd</sup>, and 104<sup>th</sup> Congresses, but not the monumental surges that actually occurred. In some sense, the model correctly identifies these periods as combining an "open window" and an ideological tension point. But, the model fails to account for the forces that pushed to take advantage of the moment so aggressively.

Second, the model fails to predict the surges that occurred in the 87<sup>th</sup> and 90<sup>th</sup> Congresses. In these Congresses, the House and Senate Commerce Committees were ideologically proximate, but the FCC was not particularly out of step with them. The dynamic driving these surges seems disconnected from the logic of model.

Finally, the model predicts a legislative response (from a Republican Congress) to the very conservative Secretary of Commerce in the 56<sup>th</sup> Congress. This failure suggests of degree of ahistoricity, or insensitivity to partisan connections.

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<sup>25</sup> We performed the test on Model 5. In the test,  $\text{Pr}(F) = .52$  – very far from statistical significance.



## 6 Conclusion

Attempting to explain surges and slumps in legislative productivity over a century, with but one or two variables, is an audacious undertaking. From this perspective, the performance of the models is surprisingly good. For example, Model 5 does well at identifying particular moments of surge in law making. But its failure to identify all such moments, or discern mere surges from momentous explosions, is unsatisfactory. We believe a better explanatory apparatus must play greater attention to other dynamics in the regulatory regime – the pace of technological change, the force of new ideas like deregulation, and the power of new groups. Incorporating these factors into a coherent history of policymaking remains a difficult task for the future. Still, we have shown that simple ideas from modern institutional theory should play a role in any such history.

## 7 References

- Binder, Sarah A. 1999. The Dynamics of Legislative Gridlock. 1947-1996. *American Political Science Review*. 93(Sept): 519-33.
- Brady and Volden.
- Brock, Gerald W. 1981. *The Telecommunications Industry: The Dynamics of Market Structure*. Cambridge, MA: Harvard University Press.
- Byrd, Robert C. 1988. *The Senate, 1789-1989: Historical Statistics*. Washington, DC: Government Printing Office.
- Burnham, Walter Dean. 1994. Pattern Recognition and 'Doing' Political History: Art, Science, or Bootless Enterprise? In Lawrence Dodd and Calvin Jillson ed., *The Dynamics of American Politics: Approaches and Interpretations*. Boulder, CO: Westview Press.
- Cameron, Charles M. 2000. *Veto Bargaining: Presidents and the Politics of Negative Power*. Cambridge UP.
- Cantor, Muriel G. and Joel M. Cantor. 1986. Regulation and deregulation: telecommunication politics in the United States. In Marjorie Ferguson, ed., *New Communication Technologies and the Public Interest*. Beverly Hill, CA: Sage Publications.
- Cass, Ronald O. 1989. Title IV, V, and VI. Review, Enforcement, and Power under the Communications Act of 1934: Choice and Chance in Institutional Design. In Paglin, Max O., ed. *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- Center for Information Policy Research. (Project Director: Benjamin Comagine) 1984. *Chronology of Telecommunications and Cable Television Regulation in the United States*. Cambridge, MA: Harvard University.
- Cohen, Jeffrey E. 1997. *Presidential Responsiveness and Public Policy-making*. Ann Arbor: University of Michigan Press.
- \* — . 1991. The Telephone Problem and the Road to Telephone Regulation in the United States, 1976-1917. *Journal of Policy History* 3 (1): 42-69.
- Coleman, John J. 1999. Unified Government, Divided Government, and Party Responsiveness. *American Political Science Review*. 93(4): 831-835.



- Compaine, Benjamin, ed. 1984. *Understanding New Media: trends and Issues in Electronic Distribution of Information*. Cambridge, MA: Ballinger Publishing.
- Congressional Quarterly Almanac. 1945-1999. Washington, DC: Congressional Quarterly Press.
- . 1995. Congress Puts Finishing Touches on Major Industry Overhaul. Vol. :4.3-4.29.
- Cox, Gary W. and Matthew McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Berkeley: University of California Press.
- Cox, Kenneth A. and William J. Brynes. 1989. Title II: The Common Carrier Provisions— A Product of Evolutionary Development. In Paglin, Max O., ed. *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- Crandall, Robert W. and Leonard Waverman. 1995. *Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications*. Washington, DC: The Brookings Institution.
- deFigueiredo, John M. and Emerson H. Tiller. 2000. The Structure and Conduct of Corporate Lobbying: How Firms Lobby the Federal Communications Commission. National Bureau of Economic Research, Working Paper 7726, June. [www.nber.org/papers/w7726](http://www.nber.org/papers/w7726).
- Edwards, George C. III, Andrew Barrett, and Jeffery Peake. 1997. The Legislative Impact of Divided Government. *American Journal of Political Science*. 41 (April)545-63.
- Emery, Walter B. 1971. *Broadcasting and Government: Responsibilities and Regulations*, 2<sup>nd</sup> Ed. Michigan State University Press.
- Epstein, David and Sharyn O'Halloran. 1999. *Delegating Powers: A Transaction Cost Politics Approach to Policy Making under Separate Powers*. Cambridge: Cambridge University Press.
- Erickson, Robert S., Michael B. MacKuen, and James A. Stimson. 1997. *The Macro Polity*. unpublished manuscript.
- Fenno, Richard. 1973. *Congressmen in Committee*. Boston: Little, Brown.
- Ferejohn and Shipan.
- Fiorina, Morris P. 1996. *Divided Government*. Boston: Allyn and Bacon.
- Freedman, Grace R. 2000. *A Cascade of Laws, a Crush of Policy: The Evolution of Federal Authority in Health and Telecommunications Policy, 1960-1996*. Doctoral Dissertation. New York: Columbia University.
- Freitag, Peter J. 1982. The Myth of Corporate Capture: Regulatory Commissions in the United States. *Social Problems* ():480-491.
- Howell, William, Scott Adler, Charles Cameron, and Charles Riemann. 2000. 'Divided Government and the Legislative Productivity of Congress, 1945-1994'. *Legislative Studies Quarterly* 25(2):285-312 (May).
- Huber and Shipan.
- Hudson, Heather. 1997. *Global Connections: International Telecommunications Infrastructure and Policy*. New York: Van Nostrand Reinhold.
- Jillson, Calvin. 1994. Patterns and Periodicity in American National politics. In Lawrence Dodd and Calvin Jillson ed, *The Dynamics of American Politics: Approaches and Interpretations*. Boulder, CO: Westview Press.
- Kahn, Frank, J., ed. 1968. *Documents of American Broadcasting*. New York: Appleton-Century-Crofts, Meredith.
- Kelly, Sean Q. 1993a. Divided We Govern: A Reassessment. *Polity* 25 (Spring): 475-84.



- — . 1993b. Response. Let's Stick with the Larger Question. *Polity* 25 (Spring): 489-90. Kiewiet and McCubbins.
- King, Gary and Lyn Ragsdale. 1988. *The Elusive Executive: Discovering Statistical Patterns in the Presidency*. Washington, DC: CQ Press.
- Kingdon, John W. 1984, 1995. *Agendas, Alternatives and Public Policies*. New York: HarperCollins College Publishers.
- Krasnow, Erwin G. and Lawrence D. Longley. 1973. *The Politics of Broadcast Regulation*. New York: St. Martin's Press.
- Krehbiel, Keith. 1999. *Pivotal Politics: A Theory of U.S. Lawmaking*. Chicago: University of Chicago Press.
- — . 1993. *A Theory of Divided and Unified Government*. Research Paper No. 1270. Graduate School of Business, Stanford University (September 29).
- — . 1991. *Information and Legislative Organization*. Ann Arbor, MI: University of Michigan Press.
- Mayhew, David R. 1991. *Divided We Govern: Party Control, Lawmaking, and Investigations, 1946-1990*. New Haven: Yale University Press.
- — . 1993. Reply: Let's Stick with the Longer List. *Polity* 25 (Spring): 489-90.
- — . 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.
- McCubbins, Matthew and Thomas Schwartz. 1987. Congressional Oversight overlooked: police patrols versus fire alarms. In McCubbins and Sullivan, eds. *Congress: Structure and Policy*. Cambridge: Cambridge University Press.
- McCubbins, Matthew and Terry Sullivan, eds. 1987. *Congress: Structure and Policy*. Cambridge: Cambridge University Press.
- McNollgast.
- Nelson, Garrison, ed. 1993. *Committees in Congress, 1947-1992*. Washington, DC: Congressional Quarterly.
- The New York Times. Various articles cited in the text
- \* Noll, Roger G. 1987. The Political Foundations of Regulatory Policy. In Matthew McCubbins and Terry Sullivan, eds. 1987. *Congress: Structure and Policy*. Cambridge: Cambridge University Press.
- Noll, Roger G. 1986. The Political and Institutional Context of Communications Policy. In Marcellus Snow, ed., *Marketplace for Telecommunications*. New York: Longman.
- Ornstein, Norman J., Thomas E. Mann, and Michael J. Malbin, eds. 1980---. *Vital Statistics on Congress*. Washington, DC: Congressional Quarterly.
- Paglin, Max O., ed. 1989. *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- Peterson, Mark A. 1990. *Legislating Together: The White House and Capitol Hill from Eisenhower to Reagan*. Cambridge, MA: Harvard University Press.
- Petrocik, John R. and Joseph Doherty. 1996. The Road to Divided Government: Paved without Intention. In Galderisi, Peter F., Herzberg, R.Q., and McNamara, P. *Divided government: change, uncertainty, and the constitutional order*. Lanham, MD: Rowman & Littlefield Publishers.
- Price, David E. 1979. *Policymaking in Congressional Committees: The Impact of "Environmental" Factors*. Tucson, AZ: The Institute of Government Research, University of Arizona.
- Poole, Keith T. and Howard Rosenthal. 1997. *Congress: A Political-Economic History of Roll Call Voting*. New York, Oxford University Press.



- \* Robinson, Glen O. 1989. Title I: The Federal Communications Act: An Essay on Origins and Regulatory Purpose. In Paglin, Max O., ed. *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- Robinson, Glen O. ed. 1978. *Communications for Tomorrow: Policy Perspectives for the 1980s*. New York: Praeger Publishers.
- Rosenstiehl, Michael C. 1997. *The Shared Understandings of Interests and Institutions: Cases from Telecommunication Policy*. Paper prepared for delivery at the Annual Meeting of the American Political Science Association, Washington, DC.
- Silbey, Joel H. 1996. Divided Government in Historical Perspective, 1789-1996. In Galderisi, Peter F., Herzberg, R.Q., and McNamara, P. *Divided government: change, uncertainty, and the constitutional order*. Lanham, MD: Rowman & Littlefield Publishers.
- Shapiro, Martin. 1988. *Who Guards the Guardians?* Athens: University of Georgia Press.
- Snyder and Weingast.
- Teske, Paul, ed. 1995. *American Regulatory Federalism & Telecommunications Infrastructure*. Hillside NJ: Lawrence Erlbaum Associates, Publishers.
- Tobias, Jeffery. 1995. Comments— "Notwithstanding Section 2(b)... "Recent Legislative Initiatives Affecting the Federal— State Balance in Telecommunications Regulation. In Teske, Paul, ed. *American Regulatory Federalism & Telecommunications Infrastructure*. Hillside, NJ: Lawrence Erlbaum Associates Publishers.
- Weingast, Barry and Mark Moran. 1983. Bureaucratic Discretion of Congressional Control? Regulatory Policymaking by the Federal Trade Commission. *Journal of Political Economy* 96: 132-63.
- Wollenberg, Roger. J. 1989. Title III: The FCC as Arbiter of "The Public Interest, Convenience, and Necessity". In Paglin, Max O., ed. *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- United States. *Statues at Large*. 1859-1945. Washington, DC: Government Printing Office.
- United States. *U.S. Code of Law*. 1925-1998. Washington, DC: Government Printing Office.
- United States. 1994-1998. *U.S. Code Congress and Administrative News*. Washington, DC: Government Printing Office.
- United States. *Statistical Abstract*. (www.fedstats.gov; www.census.gov)
- United States. *Federal Communications Commission web site* (www.fcc.gov)
- United States. Congress. House Committee on Interstate and Foreign Affairs. 1976. *180 years of service: a brief history of the U.S. House Commerce Committee*. Washington, DC: Government Printing Office.
- United States President. *Public Papers of the President*. 1929-1996. Washington, DC: Government Printing Office.
- Zaragoza, Richard R., Richard J. Bodorff, and Jonathan W. Emord. 1989. The Public Interest Concept Transformed: The Trusteeship Model Gives Way to a Marketplace Approach. In Jon T. Powell and Wally Gair, eds., *Public Interest and the Business of Broadcasting*. New York: Quorum Books.
- Zarkin, Michael J. 1998. *The Transformation of U.S. Telecommunications Policy: Political Learning and Policy Change, 1920-1996*. Paper prepared for delivery at the Annual Meeting of the American Political Science Association, Boston, MA.







Figure 0. A Policy Space with Two Committee Chairs

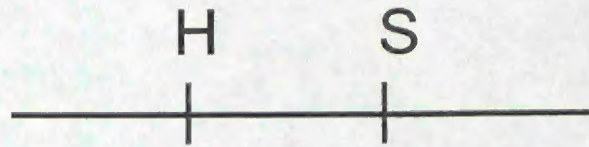




Figure 1: All Telecommunications Laws, 1900-1998 (N=162)

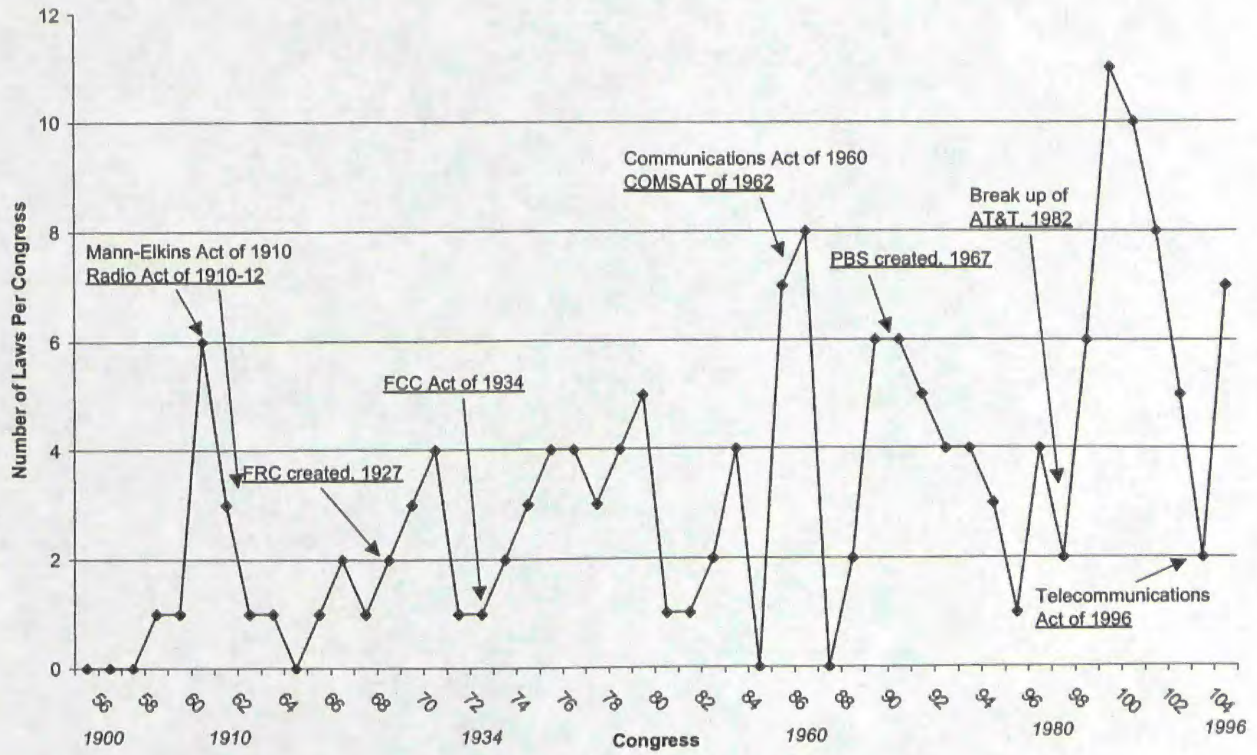




Figure 1. Congress Makes Telecom Policy, 1899-1998

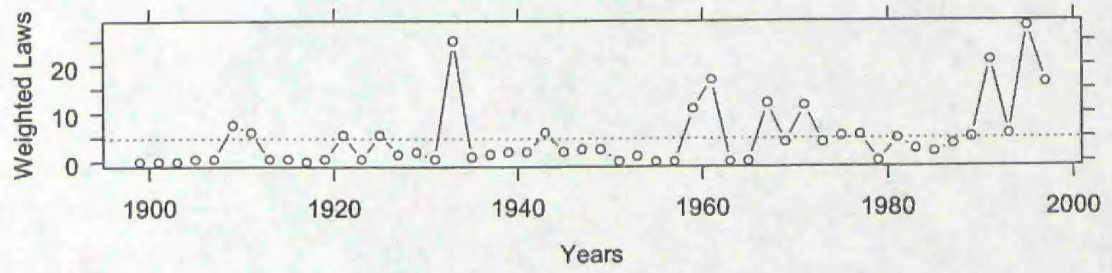




Figure 2. Inter-Committee Distance

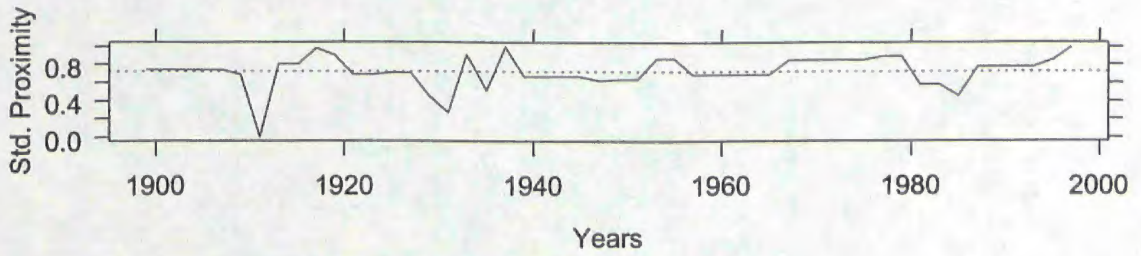
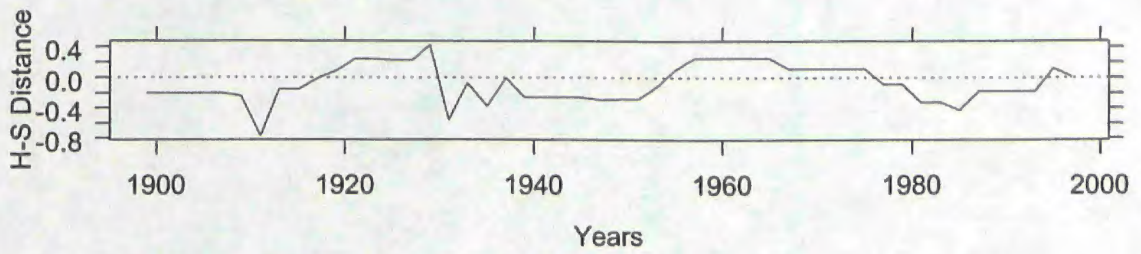
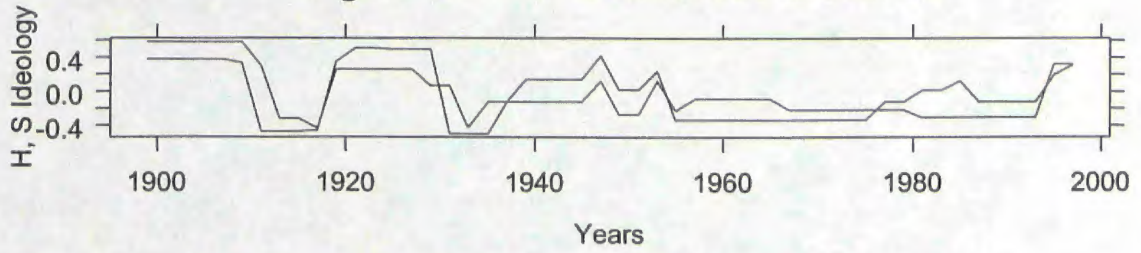




Figure 3. Agency-Committee Distance

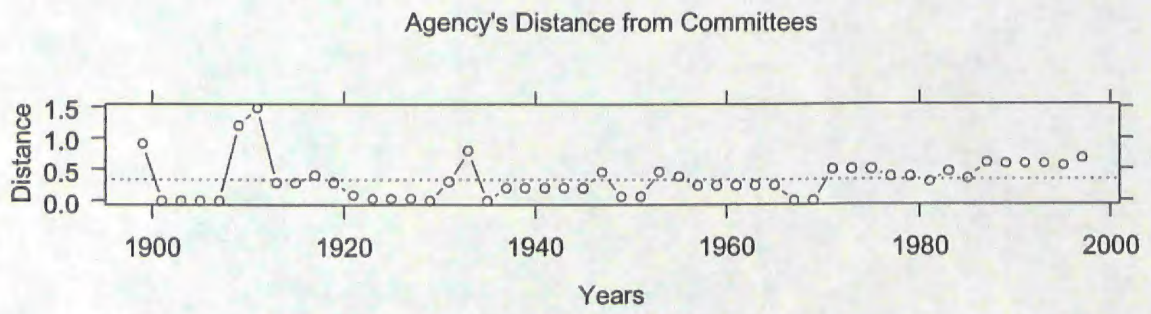
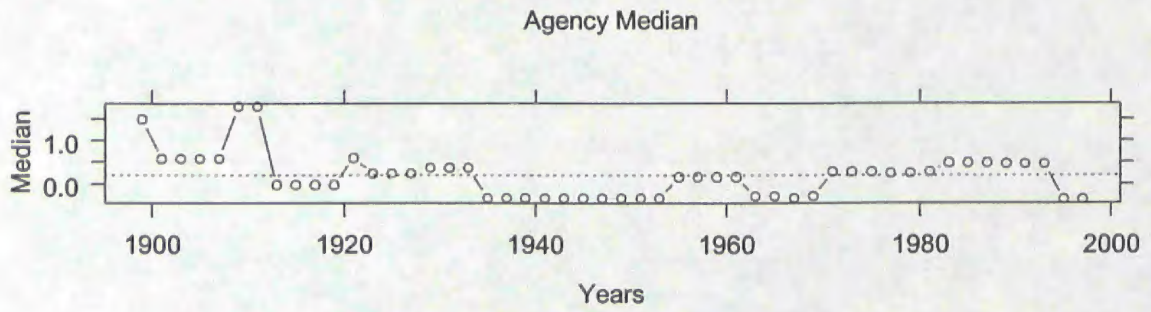
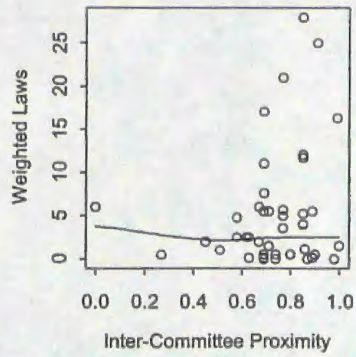


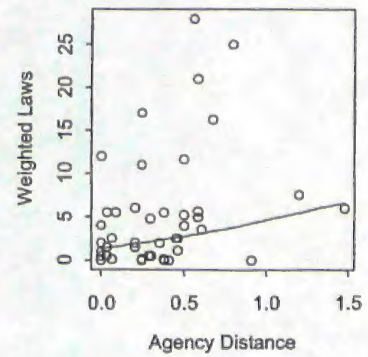


Figure 4. Basic Data Display

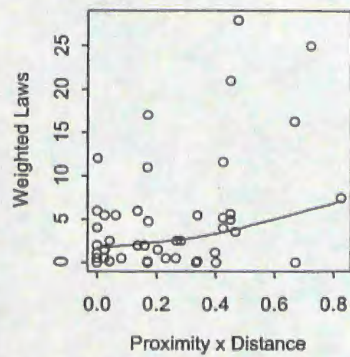
Laws and Bicameral Proximity



Laws and Agency Distance



Laws and Tension Points



Proximity and Distance

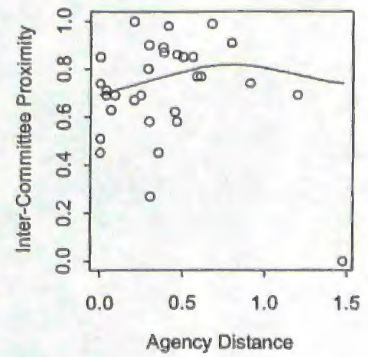




Figure 5. Production and Distance, as Proximity Increases

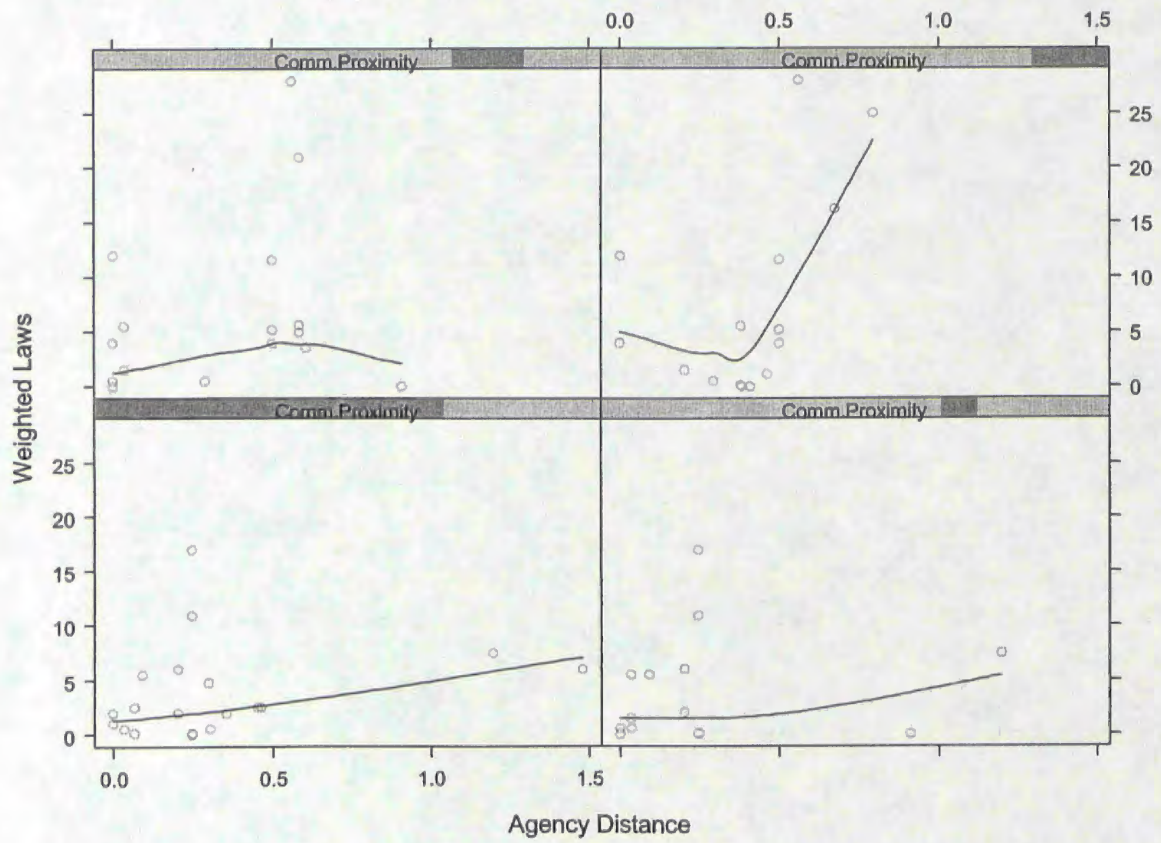
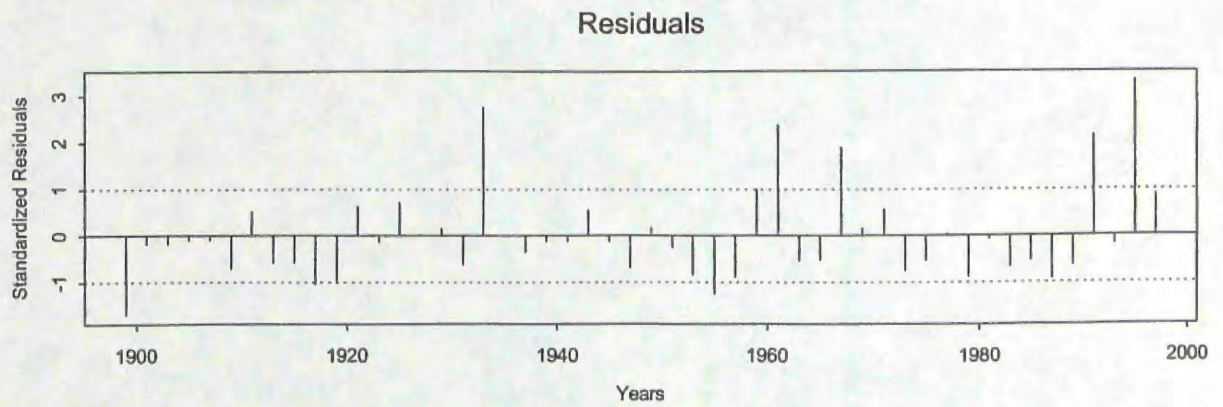
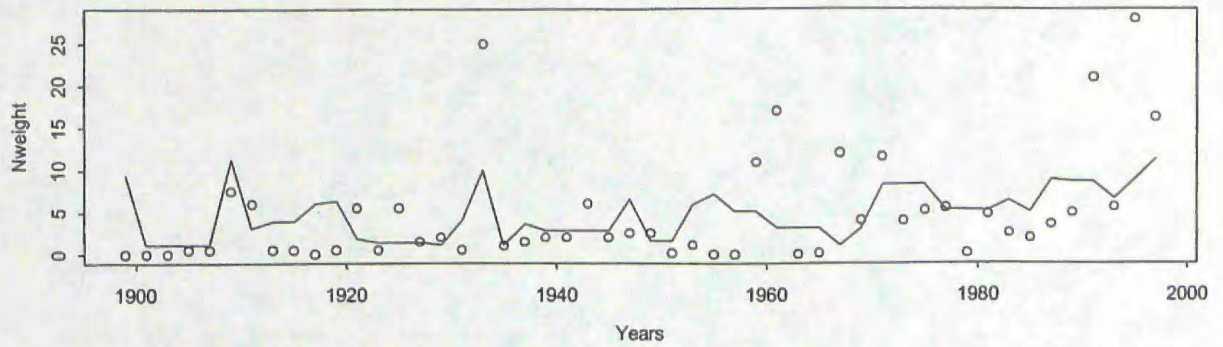




Figure 6. The Model's Predictions  
Actual vs Fit





	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Inter-Committee Proximity	7.48 5.28 1.42 0.16		9.43 4.97 1.89 0.06	9.89 4.98 1.99 0.05		
Agency Distance		7.31 2.88 2.54 0.01	8.05 2.83 2.85 0.007	6.87 3.00 2.29 0.03		
Proximity: Distance					13.42 3.97 3.38 0.002	12.34 4.08 3.03 0.004
Unified				-2.16 1.89 -1.14 0.26		-1.99 1.78 -1.12 0.27
Intercept	-0.6782 3.9230 -0.1729 0.8635	2.26 1.31 1.73 0.09	-4.80 3.94 -1.22 0.23	-3.39 4.11 -0.82 0.41	1.56 1.26 1.24 0.22	3.05 1.8 1.67 0.10
Deg freedom	48	48	47	46	48	47
R <sup>2</sup>	.04	.12	.18	.20	.19	.21
DW	1.6	1.6	1.6	1.7	1.8	1.8

Dependent variable is Weighted Laws. Cells show: coefficient, standard error, *t*-value, *p*-value. All DW greater than dU at 1% significance.

**Table 1. Linear Regression Models Predicting Legislative Activity, 1899-1998**



	1899-1998		1899-1934		1935-1998	
	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Proximity:	13.42	12.34	10.7622	10.7818	15.9916	13.4800
Distance	3.97	4.08	4.6897	4.8898	6.6370	7.5325
	3.38	3.03	2.2949	2.2050	2.4095	1.7896
	0.002	0.004	0.0356	0.0435	0.0223	0.0840
Unified		-1.99		-0.1026		-1.8354
		1.78		3.5272		2.5295
		-1.12		-0.0291		-0.7256
		0.27		0.9772		0.4739
Intercept	1.56	3.05	1.0057	1.0874	1.5104	3.0726
	1.26	1.8	1.5663	3.2389	2.0353	2.9740
	1.24	1.67	0.6421	0.3357	0.7421	1.0332
	0.22	0.10	0.5299	0.7417	0.4638	0.3101
Deg freedom	48	47	16	15	30	29
R <sup>2</sup>	.19	.21	.25	.25	.16	.18
DW	1.8	1.8	1.3	1.3	1.8	1.8

Dependent variable is Weighted Laws. Cells show: coefficient, standard error, *t*-value, *p*-value. All DW greater than dU at 1% significance.

**Table 2. Linear Regression Models: Productivity Before and After the New Deal**



## A Novel Conference: The Origins of TPRC

Bruce M. Owen

The twenty-fifth annual Telecommunications Policy Research Conference (TPRC) provides an opportunity to reflect on the origins and achievements of TPRC. An objective of TPRC has been to provide not merely a forum for communication policy researchers to exchange ideas, but also a channel for policy-relevant research to reach regulators and other government officials, and for the latter to convey their research needs to academics. Therefore, any discussion of the history of TPRC should be placed in the context of evolving government policy.

TPRC arose, not coincidentally, at the beginning of an extraordinary period in the history of telecommunications policy and regulation. Before the early 1970s, for example, it was unlawful for anyone but AT&T to offer public long distance service; there was no domestic satellite industry; it was unlawful for cable systems to import any but a limited number of distant signals; it was unlawful for any broadcaster or cable operator to offer pay-TV service consisting of entertainment series, sports events that had been on TV in the last four years, or movies less than two or more than four years old; and it was unlawful for customers to attach a "foreign"—i.e., any—device to the telephone network. More generally, it was the mainstream view that the telephone business was and ought to be a regulated monopoly, and that broadcasters were and ought to be protected from excessive competition in order to promote their ability to offer public service and especially local programming.

Further, and even more generally, the 1970s was a unique period in American economic history: one in which the validity of the notion of natural monopoly and the virtues of regulation came into question. During these years academic skepticism or even cynicism about regulation, emanating especially from the Chicago School, spilled over into public debate. The result was not just communication policy reform but intercity bus, airline, trucking and railroad deregulation, the beginnings of related reforms in the securities and financial services industries, and other deregulation initiatives. A dramatic change illustrative of the growing currency of economics took place at the Department of Justice Antitrust Division, which today employs four or five dozen Ph.D. economists. Before 1974 the Antitrust Division had *no* permanent staff of such economists. Similar changes occurred at the FTC. Many other countries have followed the U.S. intellectual lead in these matters, in some cases showing greater courage in implementing regulatory reform.

TPRC arose also during a period of extraordinary growth and change in telecommunications technology. Remote terminals of mainframe computers, geosynchronous satellites, fiber optic transmission lines, electronic switches, digital transmission and compression, the Internet, and many other advances created pressures for regulatory reform and facilitated reform.

### *TPRC beginnings*

The institution of TPRC was neither the beginning of academic interest in communications policy nor the first time academics—lawyers, political scientists, engineers, and economists—had a direct impact on communications policy. Modern academic interest in communication policy can be traced to Ronald Coase's (1959, 1962) famous property rights papers on spectrum



allocation, and to such theoretical work on utility regulation as the well-known Averch and Johnson (1962) paper.

Those unfamiliar with the field will wonder what is meant by "communication" or "telecommunication" in the present context. What is meant, roughly, is those activities historically subject to the jurisdiction of the Federal Communications Commission. This usage is curious, since telephone regulation has much more in common with electricity or natural gas regulation than with broadcasting. If industry research were focused on firms with basic similarities in their products and technologies, we would have separate conferences on mass media and on public utilities. That the same research community, and even the same individual researchers, focused on the legal jurisdiction rather than the more natural economic classifications illustrates the important influences that government has on policy research.

While important and relevant research existed, the government appeared to remain ignorant of it until the late 1960s, when Lyndon Johnson convened the President's Task Force on Telecommunications Policy, headed by undersecretary of state Eugene V. Rostow (President's Task Force, 1968). The Task Force was established in part to hold back a rising sea of political pressure that had begun to lap at the White House gates. The pressure arose from the desire of potential entrants to arbitrage the growing gap between prices and costs or between actual and best-practice technologies, and from those incumbents who relied on government to protect economic rents. These pressures were manifest chiefly in controversies involving long distance telephone service, domestic communication satellites, and the import of distant TV signals by cable systems.

Rostow assembled a talented staff. For example, Richard A. Posner was seconded from the Justice Department and Walter Hinchman from Commerce. Leland L. Johnson came from RAND. More than 30 academic consultants were retained, including William J. Baumol, William F. Baxter, William Capron, William K. Jones, Charles J. Meyers, Monroe E. Price, and Lester D. Taylor. Government agencies sent representatives, such as Roger G. Noll from the Council of Economic Advisors. The Task Force, its consultants, and its research contractors, well aware of relevant academic research, produced a report that was cautiously progressive, suggesting for example an "open skies" policy for domestic communication satellites, and a greater role for competition in telephony. The staff and contractors also produced several innovative papers on marketable spectrum rights. Finally, the Task Force recommended establishment of an executive branch agency to formulate and coordinate telecommunication policy. More important than the specific recommendations, however, the Task Force implicitly validated the notion that there was such a thing as "telecommunications policy," that it was susceptible to analytical policy research and analysis, and that there existed a newly self-aware community of scholars interested in such research.

#### *Establishment of the Office of Telecommunications Policy*

When President Johnson did not run for reelection, his Task Force lost its constituency. Politics notwithstanding, however, the incoming Nixon administration picked up on and sought to implement many of the Task Force recommendations. Clay T. (Tom) Whitehead, a Special Assistant to the President assigned to communication matters, perhaps because he had a Ph.D. from MIT (in political science), pushed to implement both the satellite open skies policy and the establishment of an executive branch policy agency. The resulting Office of Telecommunication Policy (OTP) was created by Executive Order as part of the Executive Office of the President in 1970. Tom Whitehead became the first director of the agency, reporting at least in theory directly to the President.



OTP inherited the frequency management and emergency preparedness roles formerly exercised by the defunct Office of Telecommunications Management (OTM), along with many of OTM's staff. Whitehead added only a small number of new professional staff. Among them were general counsel (now Justice) Antonin Scalia, and legislative and press relations officer Brian Lamb (later to found C-SPAN). I was the first economist at OTP, initially as a Brookings Economic Policy Fellow, and later as chief economist. Other early OTP economists included Stanley M. Besen, Ronald Braeutigam and Gary Bowman.

OTP tended to see itself, not indefensibly, as a beacon of reason adjoining an ocean of bureaucratic backwardness. Lacking significant political power (President Nixon and his senior staff did not accord much priority to telecommunications policy even before Watergate), line authority or political experience, Whitehead was reduced chiefly to issuing position papers, making speeches, and writing policy letters to the FCC chairman, which were mostly ignored. This was of course frustrating to those of us aware of the enormous gap between the implications of academic research and the actual state of communications policy in the United States.

#### *The 1972 conference*

Several influences led to the convening of the first telecommunications policy research conference. First, it seemed that exposing other policy makers to academic ideas might eventually make them more susceptible to OTP's positions. Second, OTP had a research budget to spend, and a conference appeared to be a sensible use of research funds. Earlier expenditures had sometimes produced embarrassing results, such as studies whose conclusions were at odds with OTP's positions. Third, since academic research appeared to be the major positive factor on OTP's side of most issues, OTP wanted to promote more of it. Giving academics a live audience of policy makers seemed likely to stimulate interest among policy scientists and their students.

Finally, to those of us with academic backgrounds the Washington telecommunications policy community in the early 1970s was a lonely and inhospitable place. It is not an overstatement to say that ideas like "selling the spectrum" or "breaking up *the* telephone company," or even allowing competition with it, were treated with derision and contempt by responsible officials at all levels. A policy research conference would be good for morale—a booster shot for the OTP staff and the few "enlightened" analysts in other agencies.

The first telecommunications policy research conference was held on November 17-18, 1972 in the New Executive Office Building. The audience consisted of federal government employees from OTP, the FCC, and the Departments of Justice, Commerce, and Defense, among others. Papers were presented and discussed by 15 academics (13 economists and 2 lawyers). Among the most luminous academics were Ronald Coase and William Baumol. (The 1972 program is appended.) The research papers were published by OTP (Owen, 1972).

The topics discussed at the first conference are for the most part still on the policy agenda. There were, for example, papers on cross subsidization, financing public broadcasting, spectrum markets, and cable television regulation. There were also papers on subjects that have not been much addressed in subsequent conferences, such as democracy in the newsroom, and one paper analyzing the effect of policy research on FCC decision-making. The first conference was regarded as a success by most of the participants, and there developed a consensus that it would be useful to have an annual conference.



### *An annual event*

Although I conceived and organized the 1972 OTP conference, arguably the true beginning of TPRC was at Airlie House on April 16-19, 1974. (The program of the 1974 conference appears as an Appendix in Owen, 1976.) Although OTP provided partial funding, this was the first independently organized meeting. The 1974 conference was organized by a group of academics (Donald A. Dunn, Stanley M. Besen, Gerald Faulhaber, Leland Johnson, and Ithiel de Sola Pool).

In later years funding came from government agencies such as OTP, the Federal Communications Commission, the National Telecommunications and Information Administration, and the National Science Foundation, as well as from private foundations and programs that either sponsored TPRC directly or funded research that was presented at TPRC. These institutions included the Markle Foundation, the Kettering Foundation, the Sloan Foundation, the Ford Foundation, and the Aspen Institute.

It was the practice of organizing committees in the early years to appoint their successors, with little or no overlap from year to year. Also, it was usual for the organizing committee to include representatives from those few organizations with concentrations of telecommunications policy researchers, such as the RAND Corporation, Bell Labs, and Stanford University. Each organizing committee had to manage funding as well as the program and other administrative arrangements. Because the conference had no permanent home for purposes of funding and administrative services there were frequent difficulties. By the early 1980s many established participants felt that TPRC had drifted away from its original character and goals. Accordingly, in 1985, the conference was reorganized in such a way as to separate program responsibility from fund raising and administrative concerns. Administrative matters were undertaken by a Board of Directors, whose self-perpetuating members have overlapping terms. The Board also has the duty to appoint the annual organizing committee, which has responsibility for the program and local arrangements. Since 1989 Economists Incorporated has provided administrative services to TPRC at cost; in practice this work has been organized by Dawn Higgins.

TPRC is, if not unique, certainly unusual in being a long-running event with no single individual or organization continuing in charge. Conferences like TPRC are more typically organized by learned societies. TPRC has been fortunate in having attracted such a long string of interested and capable organizing committee members. Continuing interest is no doubt also stimulated by the cataclysmic events that have shaken the communication industries since the early 1970s.

TPRC is unique in another respect: the participation of industry researchers. From the beginning, researchers from organizations such as Bell Labs have been an integral part of TPRC. Nevertheless, in the early years there was much debate, which continues, about the participation of industry "lobbyists."

### *Influence of TPRC*

It is difficult to say what influences TPRC has had on the development on government policy and on academic policy research because we lack a "control" world with no TPRC. Some of what we are inclined to attribute to TPRC may be due simply to the technological changes that led to revisions in telecommunications industry structure and regulation. But in celebrating TPRC's 25th anniversary, perhaps we should not demand too much analytical rigor on this point.



One obvious and demonstrable change on the input side is the growth in the number of economists and other professionals with similar training now employed by the FCC and other agencies responsible for telecommunication. In 1970 the FCC had no more than three or four Ph.D. economists; today there are many dozen, and an even greater number employed by regulated firms and consulting firms. Any given bureau of the FCC today is likely to employ more economists specialized in communications than there were in the nation in 1970. Further, FCC lawyers and other staffers who are not economists have adopted much of the language and many of the precepts of economics.

On the output side, changes have been revolutionary. No important FCC policy statement issues these days without explicit attention to its economic welfare effects. It is true that similar strides have been made in other areas. One is struck, for example, that at the 1997 Tokyo summit meetings on the environment, one of the United States' principal goals was the establishment of tradable emission rights. Nevertheless, communications was undoubtedly the first of the major regulatory fields to be thus reformed, and has progressed the most. TPRC facilitated this in two ways. First, by increasing academic interests in the field, it increased the supply of interested graduate students and relevant dissertations. Second, the private and government lawyers who have always been central participants in the policy process heard at TPRC a whole new set of arguments and principles that transcended the usual motifs of legal argument. Lawyers are always competing to win arguments, and TPRC supplied them with new and more effective ammunition. Further, many academic lawyers became interested in communications policy research, often as part of interdisciplinary teams.

A cynic might say that a great portion of what has changed is that the same old vested interests now feel compelled to make their public interest arguments in terms acceptable to scholars, without necessarily leading to any change in outcomes. But such cynicism cannot explain how the pre-existing industry structure was transformed into entirely new "vested" economic interests, such as IXCs, RBOCs, CLECs, DOMSATs, and PCS licensees. Under the old regime these would all have been departments of AT&T, or would not have existed at all.

TPRC's unique contribution, in the end, was the creation of what Stan Besen calls an "invisible college" or virtual community of communication researchers scattered at different institutions and agencies. However characterized, TPRC promoted both academic collaboration and the delivery of relevant policy analysis to government agencies, phenomena previously unknown in the communication world.

#### **Note**

I am grateful to many of those mentioned by name herein for reviewing the manuscript and pointing out at least some of the errors.

#### **Bibliography**

Averch, Harvey and Leland Johnson. Behavior of the Firm Under Regulatory Constraint. 52 Amer. Econ Rev. 1052 (1962).

Coase, Ronald. The Federal Communications Commission. 2 J. Law & Econ 1 (1959).

Coase, Ronald. The Interdepartmental Radio Advisory Committee. 5 J. Law & Econ. 17 (1962).



Owen, Bruce M., editor. Papers and Proceedings, Conference on Communication Policy Research. November 17-18, 1972. Executive Office of the President, Office of Telecommunications Policy. (NTIS accession number PB 218 981/9).

Owen, Bruce M., editor. Telecommunications Policy Research: Report on the 1975 Conference Proceedings. Aspen Institute Program on Communications and Society. 1976.

President's Task Force on Communications Policy. Final Report. Established Pursuant to the President's [August 14, 1967] Message on Communications Policy. GPO, December 7, 1968. Staff Papers of the President's Task Force on Telecommunications Policy (1968). (NTIS accession numbers PB 4184413-PB184424).

## Appendix

### OFFICE OF TELECOMMUNICATIONS POLICY EXECUTIVE OFFICE OF THE PRESIDENT WASHINGTON, D.C. 20504

#### CONFERENCE ON COMMUNICATION POLICY RESEARCH

NOVEMBER 17-18, 1972

The Conference will be held in Room 2008, New Executive Office Building, 17th and H Street, N.W., Washington, D.C.

#### Schedule for Formal Sessions

NOTE: Since the papers will be distributed in advance, authors will have only 15 minutes to summarize their major points. Discussants will then have 15 minutes to comment on the paper. The remainder of the time will be devoted to general discussion by the participants and members of the audience.

#### Friday, November 17

9:00 AM Welcoming Remarks by Clay T. Whitehead, Director, Office of Telecommunications Policy.

9:15 AM Edward Zajac and Gerald Faulhaber, Bell Labs: "Some Preliminary Thoughts on Subsidization."

Discussant: Thomas Moore, Michigan State.

10:15 AM Robert Meyer, Purdue: "Public vs. Private Utilities: A Policy Choice."



Discussant: William Capron, Harvard.

11:00 AM Ross Eckert, USC: "Spectrum Allocation and Regulatory Incentives."

Discussant: Alfred Kahn, Cornell.

11:45 AM Lunch break.

2:00 PM James Rosse, Stanford: "Product Quality and Regulatory Constraints."

Discussant: William Baumol, Princeton.

2:45 PM Roger Noll, Brookings: "Decentralization of Public Television."

Discussant: Thomas Moore, Michigan State.

3:45 PM Stephen Barnett, Berkeley: "Media Control, News Control, and the FCC."

Discussant: Ronald Coase, Chicago.

Saturday, November 18, 1972:

9:15 AM Stanley Besen, Rice: "The Economics of the Cable Television 'Concensus.'"

Discussant: George Hilton, UCLA.

10:00 AM Lionel Kestenbaum, "Issues in Common Carrier Regulation of Cable Television."

Discussant: Merton Peck, Yale.

10:45 AM Rolla E. Park, RAND: "The Role of Analysis in the Formation of Cable Policy."

Discussant: Merton Peck, Yale.

11:30 AM End of Conference.



## Organizing Committee Members 1972-1985

The First 10 Years

### 1972

Bruce M. Owen

### 1973

No conference.

### 1974

Stanley M. Besen

Donald Dunn

Gerry Faulhaber

Leland Johnson

Ithel Pool

### 1975

Kan Chen

Walter S. Baer

Elizabeth E. Bailey

Kas Kalba

Bruce M. Owen

### 1976

[Information missing]

### 1977

Shiela Mahony

Paul Bortz

Ronald Breutigam

Forrest Chisman

Deen Gillette

Bridger Mitchell

Weston Vivian

Debbie Mack

### 1978

Lawrence Day

Herbert Dordick

Aimee Dorr



Henry Goldberg

Carol Keegan

Harvey Levin

William Lucas

Rhonda Mange

Robert D. Willig

**1979**

[Information missing]

**1980**

John Clippinger

Robert E. Dansby

Charles M. Firestone

Heather Hudson

Jorge Schement

Marvin A. Sirbu

Leonard Waverman

**1981**

Barry Cole

Timothy Haight

Hudson N. Janisch

Wilhelmina M. Reuben-Cooke

William E. Taylor

Armando Valdez

Larry White

**1982**

[Information missing]



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1995 WLNR 4445385

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September 14, 1995

Section: Business

Novell, Utility to Develop Networks Over Electric Lines  
Telecom: The venture with UtiliCorp may help speed the entry of power companies into  
the communications business.  
LESLIE HELMTIMES STAFF WRITER  
TIMES STAFF WRITER

Computer software powerhouse Novell Inc. said Wednesday that it is working with a major utility to transform ordinary electrical wires into computer networks, an agreement that could both speed the arrival of "smart appliances" and accelerate the entry of power companies into the communications business.

The technology being developed by Novell and UtiliCorp United Inc., an aggressive Missouri-based utility company, could eventually find its way into millions of appliances: A worker expecting to be home late could use her computer to have her porch light and thermostat turned on in time for her arrival and have the oven heated and ready for a frozen pizza.

In addition, the technology could make setting up an office computer network far easier and cheaper. Novell Chief Executive Robert Frankenberg, announcing the agreement, showed his audience an ordinary power cord and declared: "This is all you need to know about setting up a network."

For the electric utility industry, finding new ways to exploit its vast infrastructure is crucial in an age of deregulation and declining margins, and telecommunications services of all kinds are a popular target market.

Technologies such as the one being developed with Novell could also promote energy efficiency by giving customers tighter control over energy consumption. Industrial production processes that are heavy consumers of energy could be programmed to operate at times of the day when electricity usage is lowest and rates are the cheapest.

While there is already technology available that uses electric wires for communications, conflicting standards and limits on data transmission rates have inhibited acceptance among consumer electronics and office equipment manufacturers.

The Novell system is capable of transmitting up to 2 megabits of information without



interference from power passing simultaneously through the lines. That is about 20 times the power of previous standards and is enough to comfortably handle more than a dozen computers in an office without installing special cables.

"A name like Novell, with their networking ability, together with someone as aggressive and imaginative as UtiliCorp could provide the needed standard," said Clay Whitehead, a McLean, Va.-based consultant who authored a major report last fall for the Electric Power Research Institute on the opportunities for electric utilities in communications. "There is a lot of ferment now, but when it gels it could happen very quickly."

But some analysts remain skeptical about how quickly manufacturers, particularly consumer electronics companies, will embrace a technology controlled by Novell. "There is some question about how easy it will be to get people to jump aboard a proprietary architecture like this," says Stan Schatt, analyst at La Jolla-based Computer Intelligence Infocorp.

Novell, based in Kansas City, Mo., may be strongest in the office, where customers of its popular computer networking systems reside: Xerox, Canon and Hewlett-Packard have already committed themselves to developing products that work with the new standard. And Novell's nemesis Microsoft Corp. has backed away from an ambitious program aimed at tying together office equipment such as printers, copiers and computers.

But in the home, Microsoft could have an edge. The software giant is working with Tele-Communications Inc., the nation's largest cable company, and Pacific Gas & Electric to develop a system for managing energy use in home appliances.

The Novell partnership with UtiliCorp exploits a technology announced earlier this year called Novell Systems Embedded Technology. Embedded in a chip that would cost \$1 to \$2, the technology would be added to appliances, either internally or via an adapter, and effectively turn each device into a node on a local area network.

Novell and UtiliCorp will jointly develop and market applications and equipment that exploit the Novell technology with an initial team of less than 20 people. The two companies will also establish an open consortium and invite other utilities to join them in supporting the standard.

UtiliCorp, an electric and gas firm with \$1.6 billion in revenue that is recognized as among the most aggressive and innovative companies in its field, says its contribution will be its knowledge of the energy and appliance market and its national brand. For example, the company has a significant business offering appliance maintenance and repair services under the brand name EnergyOne.

Deregulation and the need to become more efficient in energy operations are both helping push utilities into the communications business. Analysts estimate that if appliances are connected to energy management systems that might, for example, turn your freezer and water heater on at night when rates are cheapest, the average household could save a third of its \$700 annual bill.

And some utilities are already taking advantage of their ubiquitous infrastructure of right of ways, telephone poles and internal communications systems to position



themselves to offer a variety of new communications services in the future.

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---- INDEX REFERENCES ----

COMPANY: XEROX CORP; MICROSOFT CORP; UTILICORP UNITED INC; HEWLETT PACKARD CO;  
PACIFIC GAS AND ELECTRIC CO; ELECTRIC POWER RESEARCH INSTITUTE; TELE COMMUNICATIONS  
INC; XEROX; PG&E CORP

NEWS SUBJECT: (Joint Ventures (1JO05); Business Management (1BU42); Major  
Corporations (1MA93); Corporate Groups & Ownership (1XO09))

INDUSTRY: (TV (1TV19); I.T. (1IT96); Entertainment (1EN08); Software (1SO30);  
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(1IT32); I.T. Analysts Report (1IT76); Utilities (1UT12); Telecom (1TE27);  
Communications Software (1CO45); Cable TV (1CA92); Utilities Telecom & Information  
Services (1UT01))

REGION: (Missouri (1MI10); Americas (1AM92); North America (1NO39); USA (1US73))

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Volume 4 ; Issue 25

Whitehead Sees Economies in Bundled Power, Telecom Service

Clay T. Whitehead heads a McLean, Va.-based consulting firm that bears his name and is a senior managing partner at Communications Capital Partners LLC, a San Francisco investment firm. He is best known, however, as a pioneer in satellite communications. In the 1980s he founded the popular ASTRA European TV and radio broadcast satellite system and helped establish Hughes Electronics Corp.'s Galaxy satellite service subsidiary, which since has merged with U.S. international separate satellite system operator PanAmSat Corp. From 1971 to 1974 Mr. Whitehead headed the White House Office of Telecommunications Policy-the forerunner to the Commerce Department's National Telecommunications and Information Administration.

Mr. Whitehead's firm primarily works with large companies to develop telecom and TV projects, including joint ventures between electric power and telecom companies. This month CBF spoke with him about the parallel pressures the electric power and telecom industries face as both grapple with deregulation, and how those pressures ultimately may lead to a consolidation of electric and telecom service retailing.

CBF: When we last spoke, after Texas Utilities Co. announced it was acquiring local exchange carrier Lufkin-Conroe Communications Co. [CBF, Sept. 15], you mentioned that the power and telecom industries were undergoing similar deregulatory trends. Could you elaborate on that point?

Whitehead: My perspective on this goes back to my days in government when we were struggling with what to do with the Bell System. AT&T had become a huge part of the national economy, telecom [markets] were growing extremely rapidly, and the subjects of competition in satellites and in long distance carriage and the like were becoming more pressing. We had to struggle with the antitrust question and the monopoly question and regulation v. competition.

And what we did back then, of course, was bring an antitrust case against AT&T. Competition was introduced first in satellites and then in long distance carriage. Now competition has become, after a couple of decades, the way that we routinely think of organizing the telecom business.

The parallel I see in electricity is twofold. First is the regulatory experience: how to take a monopoly, regulated industry and introduce competition in a more or less orderly way. It's interesting to note that the people who regulate electricity are the same people who regulate telecom in both the Congress and the state [public utility commissions] and legislatures.

The other parallel is in technology. The change in information technology now makes it possible to keep track of who is generating electricity, who's using



electricity. It becomes feasible to introduce competition and let the buyers and purchasers of electricity find themselves in the marketplace.

In order to make that work, you need information technology, but you also need to change the regulatory structure. And that means setting up a demarcation between the three main sectors of the electrical business: generation, transmission distribution, and retailing. That demarcation [results in] the generation business becoming highly competitive and the retailing business becoming highly competitive.

The monopoly element is constrained to the "wire." That's reminiscent of what we did in telecom. If you think of the LEC [local exchange carrier] as being parallel to the wires company, you see a parallel between economic and regulatory structures.

CBF: You've said deregulation-whether in the power or telecom industries-results in a "commoditization" of those services.

Whitehead: What we've seen in telecom is that the ultimate product, for example, is a long distance call. There are now many networks that can provide long distance carriage. That service-the long distance telephone call minute-has become a commodity because it's not terribly differentiated from provider to provider, and there's a high degree of competition. Pricing becomes the main differential at the consumer level.

When it comes to electricity, an electron is an electron, and people don't care who generated their electricity as long as it's delivered. If the market is allowed to work, the real basis for competition becomes marketing. Sometimes, as we've seen in the long distance business, that's heavily advertising-related for the consumer.

But it's also feature-driven for more sophisticated users and businesses. You will in time see the same thing with electricity. People will retail electricity as a commodity for the consumer market in much the same way that long distance is now heavily advertising-based. For businesses there will be more features and serious price competition.

CBF: Do you see local telephone service becoming a commodity as well?

Whitehead: Not quite in the same way. If the local wire business-the local electric transmission line-is turned into some kind of a common carrier, so there's open access and generators can pay to use those wires and get directly to the local customer, then that's all you need as a first approximation for competition to work.

I don't hear anyone talking seriously about either the need for additional electric wire companies or any enhanced features that would require the construction of additional wires, as you do in telecom. There's a tremendous amount of discussion about putting information technology at the customer premises and then back at the provider's location to help customers optimize their use of electricity. But that doesn't depend on competition in the local electric transmission line.

CBF: Last month Delmarva Power & Light Co.'s Conectiv Communications, Inc., subsidiary began offering bundled telecom services to certain of its parent's energy customers. Is Conectiv the exception, or do you see the entrance of power utilities into telecom markets becoming a trend?

Whitehead: Some of them clearly will. For example, Boston Edison [Co.] has made a major commitment to get into the telecom business, [CBF, Oct. 14, 1996; and Aug. 18] and there are others that have done or are doing that. There are two different ways that utilities may become a force in this area.

One is by teaming up with telecom service providers to build new networks, effectively CLEC [competitive local exchange carrier] networks. Most utilities, although they're besieged with questions about deregulation and competition, have a healthy cash flow. They can afford to make investments in local telecom infrastructure. You may see some utilities doing that and thereby bringing more facilities-based competition to many local markets. The other way that utilities



will be approaching this is through their customer base. The electric utilities, for the most part, have a very high consumer satisfaction rating. The electric utilities are generally quite trusted by consumers.

I believe you'll see more utilities offering to take some of the confusion out of telecommunications and to provide long distance and Internet [access] and other telecom services directly to their customer base. Many customers would welcome that. They would trust the utility to pick a long distance provider that would give them quality service at a low price and to bundle that with their electric bill.

CBF: Why the sudden interest in telecom? Is power industry deregulation spurring utilities on?

Whitehead: Yes, definitely. The utilities need to find alternative sources of revenue as competition and deregulation set into their business. And telecom offers opportunity in both ways. They now have a strong incentive to do that, and the regulators have to see that if they're going to deregulate and introduce competition, they have to allow the electric utilities to do some of these other things as well.

CBF: We've mentioned Texas Utilities, Boston Edison, and Delmarva Power, and the CLEC Hyperion Telecommunications, Inc., has just entered into a joint venture with Allegheny Power [see separate story]. All these are examples of old-school energy utilities getting into the telecom business, but so far we haven't seen old-school phone companies getting into energy retailing. Is that likely to change?

Whitehead: It's very likely. Deregulation and competition really haven't come yet to electricity, and it would be premature for telecom companies to begin thinking about reselling electricity. But when it does happen and it will happen through some federal legislation but mostly at the state level-at first you will probably find a number of long distance companies buying electricity and reselling it to their customers. I don't know about the LECs, but certainly the long distance companies will.

Once the deregulation process starts up in electricity like it has in telecom, [bundling electricity and telecom services] will be a fairly easy thing to do. Any long distance company could contract with a provider to buy electricity on the wholesale market at the lowest possible rate, contract with the local electric transmission line company to distribute that to the customers, and sell kilowatt hours in much the same way as it sells long distance minutes.

We're headed to where there will be companies that specialize in the generation of electricity, companies that specialize in the wire transmission of electricity, and those that will provide those services on a wholesale basis to all manner of retailers. So we'll see an unbundling in electricity provision much as we've seen unbundling of telecom service provision. But then to some extent, we'll see a rebundling at the retail level, where retailers offer to make the customer's life easier by buying electricity and long distance minutes, Internet access, and other things and providing them as a bundled package in whatever combination the customer finds most attractive.

CBF: Do you foresee any other outright acquisitions of phone companies, such as Texas Utilities' purchase of Lufkin-Conroe?

Whitehead: We'll definitely see some more purchases of local exchange companies by electric utilities. It makes sense because it's a very quick and easy way for a utility to acquire expertise in the provision and marketing of telecom services. But I don't see it as a natural way for utilities to diversify. I don't see it in the sense of a utility saying, "Well, my revenues are now \$1 billion a year, so I'm going to go out-as my electricity service becomes subject to more competition-and buy a bunch of local phone companies to find \$500 million or \$1



billion of telecom local exchange revenue." It won't happen that way.

What does make sense is for utilities to acquire, in certain cases, a small local exchange carrier to give them quick entry into the telecom industry. Then they can use the people and the know-how that they acquire to go on and do other things.

You don't have to own a lot in the way of telecom facilities to be an important player in the retailing of telecom services, but you do have to have people who know that world and who can help you figure out what you should be doing for your customers. Also, you have to bear in mind that this commoditization that we talked about rests heavily on economies of scale. There are huge economies of scale in buying wholesale service and, then again, there are huge economies of scale for consumer marketing and advertising.

CBF: And information technology is what will bring telecom and energy retailing all together?

Whitehead: The application of information technology is essential in a world of competitive electricity supply. One of the features that differentiate telecom and energy is that the use of electricity on a customer-by-customer basis is not going to grow at the same very rapid rate that we see in telecom.

The basis of competition is going to be much more focused on service convenience and cost savings. And that will require information technology, as you offer to price the electricity to the consumer on a time-of-day basis.

For example, in order for a utility to offer to heat a customer's water at off-peak hours, you have to have information technology that tells you the current price per kilowatt hour, how much hot water there is left in the tank, what's the usage pattern, and so forth.

That necessitates intelligence, some kind of a two-way digital link to the customer premises. And utilities-well, not just utilities but any service provider such as a long distance carrier-is ultimately going to have to put that kind of intelligence at the customer premise along with the digital link.

To some extent that's a problem. It costs money to do that. The technology, kinds of features, and cost-benefit analysis have yet to be worked out. But it's clear that something like that will be used.

On the other hand it represents an opportunity if some large service provider decides to put \$100 worth of electronics in a two-way digital box to manage electricity at the customer premise. That box then becomes a communications link that can be used for other things, and the costs can be amortized over a broader base. Utilities will look at how to combine the energy intelligence with other kinds of telecom services to provide the most cost-effective combination.

The utilities are an interesting potential player here because while they're, in some sense, behind on the technology curve, they have one important feature that no one else other than the LEC has: ubiquity. The electric company goes to every customer and premise. The opportunity to install some kind of intelligence or some kind of digital communications link at a huge number of customer premises offers an interesting approach to the economies of scale that we were talking about earlier.

CBF: Much of your career has focused purely on the telecom and media industries. Would you like to comment on trends in those sectors?

Whitehead: On a broad front, one of the most fascinating things is the growth of digital communications capabilities and digital traffic. Forever voice was the driving force, and data dragged along as best it could. Now we see a change in that and the possibility that voice will be handled digitally on an all-digital network.

That, along with competition, offers a fascinating opportunity for a substantial realignment of the industry.



Another thing that is interesting, because of my background in satellites, is the tremendous opportunity for satellite communication all around the world. Fiber and satellites used to be seen as competitors, but in fact they're logical complements. Satellites can offer a range of communications to places [that] fiber can't, and vice versa.

You'll see, particularly outside the United States, an extremely rapid growth of satellite communication as the way of providing a large number of services in ways that fiber can't. That's going to accelerate greatly the growth of television around the world and also Internet and voice services to more remote areas. It's going to be a fascinating time in the next decade.

---- INDEX REFERENCES ----

COMPANY: ALLEGHENY POWER; DELM PWR AND LT CO; PANAMSAT CORP; TEXAS UTILITIES CO; HUGHES ELECTRONICS CORP; CONECTIV INC

NEWS SUBJECT: (Legal (1LE33); Infrastructure (1IN78); Joint Ventures (1JO05); Technology Law (1TE30); Economic Policy & Policymakers (1EC69); Economics & Trade (1EC26); Corporate Groups & Ownership (1X009))

INDUSTRY: (I.T. Consulting & Services (1IT92); Telecom Regulatory (1TE65); I.T. Consulting & Services Vertical Markets (1IT54); Enhanced Services (1EN42); Bundled Telecom Services (1BU78); Utilities Regulatory (1UT69); I.T. Regulatory (1IT67); Communications I.T. Services (1CO14); TV Infrastructure (1TV69); Telecom Services (1TE09); TV (1TV19); Electric Utilities Brokering (1EL75); I.T. (1IT96); Telecom Carriers & Operators (1TE56); Entertainment (1EN08); Public Utilities, Oil & Gas I.T. Services (1PU80); Telecom Network Infrastructure (1TE95); Entertainment Technology (1EN50); Electric Utilities (1EL82); Telecom Markets (1TE97); I.T. in Telecom (1IT42); Broadcast Technology (1BR27); I.T. in Utilities, Oil & Gas (1IT32); Utilities (1UT12); Long-Distance Services (1LO42); I.T. Services Regulatory (1IT90); Telecom (1TE27); TV Regulatory (1TV84); Utilities Telecom & Information Services (1UT01); Broadcast Satellites (1BR52); Electric Utilities Retail Wheeling (1EL08))

REGION: (North America (1NO39); California (1CA98); Americas (1AM92); USA (1US73))

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OTHER INDEXING: (ALLEGHENY POWER; CBF; CLEC HYPERION TELECOMMUNICATIONS INC; COMMERCE DEPARTMENT; COMMUNICATIONS CAPITAL PARTNERS LLC; CONECTIV; CONECTIV COMMUNICATIONS INC; CONGRESS; DELMARVA POWER; DELMARVA POWER LIGHT CO; HUGHES ELECTRONICS CORP; LEC; LUFKIN CONROE; LUFKIN CONROE COMMUNICATIONS CO; NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION; PANAMSAT CORP; TEXAS UTILITIES; TEXAS UTILITIES CO; TV; WHITE HOUSE) (Clay T. Whitehead; Whitehead)

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### Citizens Utilities Looks To Spin Off Telecom Assets

Citizens Utilities Co. is preparing to spin off its telecom assets into a separately traded company. Stamford, Conn.-based Citizens said last week it was undertaking the restructuring because it believed separating its telecom assets from its energy and water utility businesses would enable the postsplit companies to pursue their own strategies more effectively.

Investors applauded the move. May 18, the day of the announcement, they sent Citizens common shares, which already were trading at near all-time highs, up 87.5 cents, or 8%, to \$11.4375. Later last week, however, Citizens shares settled at about \$11. The proposed tax-free spin-off, which is subject to Internal Revenue Service and other regulatory reviews, is expected to be completed within nine to 12 months. Citizens' board of directors has approved the transaction.

"The spin-off is a sensible move," said satellite service pioneer Clay T. Whitehead, who advises large companies developing telecom and electric power projects from his McLean, Va., office. Citizens has built up its telecom and other utilities assets in a classical holding company pattern, he told TR, adding, "There's not a lot of collocation of facilities" with Citizens' energy and telecom assets.

"The potential synergies between utility and telecom [services] are at the retail and distribution level," Mr. Whitehead continued. "That means there needs to be an overlap of service territories, and Citizens has not done that. . . Given the lack of collocation, there's more value for the shareholders by splitting the companies. . . If Citizens had an overlap between the territories, I would raise the question, 'Why aren't they exploiting some of the technical, retail, and marketing synergies?'"

Citizens Communications at year-end 1997 had 873,300 local access lines in New York, West Virginia, Arizona, California, Tennessee, Nevada, Utah, Idaho, Oregon, Montana, New Mexico, and Pennsylvania, according to Citizens Utilities documents on file with the Securities and Exchange Commission. The unit also provides long distance, directory, Centrex, and Internet access services. For first quarter 1998, Citizens Communications had \$205 million in revenues.

Included in the spin-off would be Citizens' 83% interest in Electric Lightwave, Inc. (ELI), a Vancouver, Wash.-based competitive local exchange carrier that went public late last year (TR, Nov. 10, 1997; and Dec. 8, 1997, notes). The spun-off company also would hold Citizens' 33% ownership stake, or 74% voting interest, in Centennial Cellular Corp. The new telecom entity has not yet been named; a financial adviser will be chosen shortly, Citizens said.



Expressing concerns after the announcement about the allocation of existing debt following the spin-off, Moody's Investors Service placed Citizens' credit ratings on review for a possible downgrade. Moody's noted that it had downgraded Citizens' rating in April because of concerns that an accelerated business plan at ELI could drag on the parent's credit worthiness. Uncertainties over Citizens' out-of-territory telecom strategy remain, Moody's said.

Explaining the reasoning behind the spin-off, Citizens Chairman and Chief Executive Officer Leonard Tow said, "The separation of Citizens' telecommunications businesses and public services businesses is being made in recognition of the different investment features, valuation criteria, capital structures, dividend policies, customer requirements, and regulatory concerns associated with each of the respective businesses." He said cash flow generated by Citizens Communications' telco operations would be reinvested into higher growth activities, such as data services and ELI.

## ----- INDEX REFERENCES -----

COMPANY: ELECTRIC LIGHTWAVE INC; CENTENNIAL CELLULAR CORP; CITIZENS UTILITIES CO

NEWS SUBJECT: (Credit Ratings (1CR83); Business Management (1BU42); Divestments & Spinoffs (1DI75); Corporate Strategy & Strategic Planning (1X003); Business Strategy (1BU97))

INDUSTRY: (Science & Engineering (1SC33); Utilities (1UT12); Theoretical Analysis (1TH79); Financial Services (1FI37); Business Theory (1BU14))

REGION: (USA (1US73); Americas (1AM92); North America (1NO39); California (1CA98))

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OTHER INDEXING: (CENTENNIAL CELLULAR CORP; CITIZENS UTILITIES CO; ELECTRIC LIGHTWAVE INC; ELI; INTERNAL REVENUE SERVICE; INVESTORS SERVICE; SECURITIES AND EXCHANGE COMMISSION; TR) (Centrex; Citizens; Citizens Communications; Citizens Utilities; Clay T. Whitehead; Expressing; Included; Investors; Leonard Tow; Moody; Pennsylvania; Whitehead)

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