

AGENDA-SETTING
THE UNIVERSAL SERVICE CASE

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ABSTRACT

The goal of this dissertation is to test the agenda-setting theories of John Kingdon and Frank Baumgartner/Bryan Jones in terms of applicability. Universal service policy and the 1996 Telecommunications Act serve as the test case. Case study methodology guides the dissertation and employs a variety of methods including the quantitative and qualitative techniques used by John Kingdon and by Frank Baumgartner/Bryan Jones. These methods involve content analysis and the coding of media articles, an analysis of congressional hearings and government reports, and a review of scholarly literature on topics related to the policy-making in general, and telecommunications policy development, in particular. Universal service was selected for legislative action because it was bound up with telecommunications legislation, which required revision. Although some policy-makers preferred a market solution (that is the elimination of subsidized telecommunication services), universal service remained part of the telecommunications policy revision. Reasons include a new issue definition accompanied by a compelling image (information superhighway), the support of rural senators, and presidential leadership. With regard to fundamental differences between the Kingdon and Baumgartner/Jones' theories Kingdon's premise regarding the impact of cyclical events and systematic indicators has more applicability than Baumgartner and Jones' punctuated equilibria model of policy change. In addition, unlike Kingdon's research results, which indicate the media have a minor role in agenda-setting, Baumgartner and Jones' media attention indicators of policy change demonstrated a similar pattern to the universal service media indicators. The influence of interest groups is another point of difference. The universal case as with Baumgartner and Jones' research results that interest groups were major actors in setting the policy agenda. The contribution of this dissertation is to suggest elements of a new integrated model for the study of agenda-setting that incorporates aspects of the work of Kingdon and Baumgartner/Jones.

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Chapter 1

INTRODUCTION

National policy agenda-setting is a complex, often-contentious process. Since at any given time thousands of issues merit consideration by policy-makers, there is intense competition for a place on the congressional policy agenda. The object of this dissertation is to test aspects of John Kingdon's and Frank Baumgartner/Bryan Jones' established agenda-setting theories that concern the degree to which agenda-formation is influenced by such factors as: issue definition, compelling images, the presence of policy alternatives, presidential support, interest group advocacy, media attention, political cycles, and public opinion. The basis of the research design is case-study methodology, a proven strategy for the investigation of complex contemporary events over time.

Research Goals

The research goal is to discover how two respected, often-cited theories of agenda-setting that differ significantly compare, and whether they are adequate and complete when tested within the frame of universal service policy and the Telecommunications Act of 1996. An additional goal is to propose elements of an integrated and extended model for agenda-setting that builds on the strengths of Kingdon and Baumgartner/Jones' work.

Passage of the Telecommunications Act of 1996 was a landmark event for the telecommunications industry. This Act discarded decades of regulation in favor of a policy intended to promote competition. At the same time, a major element of the Act, universal service, required the industry to extend subsidized access for telecommunications services not only to low-income and rural subscribers but also to schools, libraries, and rural health-care facilities. There is a distinction that needs to be made between universal service as originally understood (basic voice telephone service) and the view that materialized in the 1996 legislation (access to emergent information technologies). It has been estimated by economist James Priege that the annual cost of 1996 universal service regulation as mandated by the 1996 Telecommunications Act will be \$4-12 billion (Priege, 1997, 57). The paradoxical nature of the legislation is demonstrated by the wide divergence between its costs as assessed by industry interest groups and conservative politicians, and its benefits as claimed by supporters in the executive and legislative branches of government and public interest groups.

Universal service was selected as the case for examining agenda-setting theory because it represents a policy issue that is so complex that it defies a full grasp by the layperson. Nevertheless, the recent universal service legislation has the potential to make an enormous impact on the lives of all citizens. An investigation of the telecommunications agenda-setting process from the mid-1980s to the mid-1990s raises a subset of related research questions that are addressed in this analysis. For example, within the United States system of democratic governance, how is an issue like universal service selected for legislative action? What capacity do citizens have to influence the agenda-formation policy process particularly complex technical and legal issues? How did universal service, a regulatory mandate within deregulatory legislation, remain part of the recently revised telecommunications law, and what does this paradox suggest in so far as agenda-setting process is concerned?

Agenda-Setting Theories

John Kingdon defines the agenda as “a list of subjects or problems to which government officials and people outside of government closely associated with those officials, are paying some serious attention to at any given time (Kingdon, 1995, 3). Furthermore, he explains that “the agenda-setting process narrows this set of conceivable subjects to the set that actually becomes the focus of attention” (Kingdon, 1995, 3). Over the past two decades scholars have approached the study of agenda-setting from a number of different perspectives. E. E. Schattschneider, for example, focused on the way conflict within democratic government processes is exploited or suppressed by political actors. Schattschneider suggests that alliances or divisions among people are formed or disrupted as a consequence of conflict. Accordingly, issues are moved on or off the national policy agenda. Therefore agenda-setting involved for Schattschneider, establishing priorities within a competitive, democratic system (1975).

A number of social scientists use Schattschneider as a point of departure (Baumgartner and Jones, 1993; Cobb and Elder, 1983; Nelson, 1984; Stone, 1997). However, they analyze in more depth specific aspects of agenda-setting, such as problem definition, interest group involvement, or media attention. The present study, while noting relevant elements of several theories, rests principally on the agenda-setting research and theories of John Kingdon and of Frank Baumgartner and Bryan Jones. These two have been chosen because, unlike the others, they analyze the entire agenda-setting process, use a longitudinal case-study approach, and as a result propose a complete agenda-formation model.

John Kingdon

John Kingdon emphasizes the formation of policy ideas and the manipulation of “windows of opportunity” by policy-makers over a number of years. His study of agenda-setting acknowledges the complexity of policy formation in general. Specifically, it is the interaction of three separate streams—problems, policies, and politics—that converge at critical times to create a “window of opportunity” that results in issues moving onto the “decision agenda,” for legislative enactment (Kingdon, 1995, 166).

Policy windows are an opportunity to advocate change. It is only when a window opens, Kingdon argues, that policy entrepreneurs are able to attach their solution to a problem, thereby insuring a successful policy outcome, which Kingdon defines as enacted legislation. Central to Kingdon’s theory is a distinction between agenda-setting and the “generation of policy alternatives,” or solutions. Agenda-setting may change suddenly, but solutions evolve incrementally over time. Kingdon’s theory is particularly germane to the universal service case. Kingdon considers a variety of contributing factors to the agenda process, such as presidential attention, the significance of problem definition, policy change over time, interest group pressure, media coverage, and public opinion. Therefore his theory sustains a longitudinal examination of agenda-setting and at the same time enables a synthesis of many influences upon the process.

Frank Baumgartner and Bryan Jones

In contrast, Frank Baumgartner and Bryan Jones focus on the impact of problem or issue definition and the development of policy change across multiple venues. Like Kingdon, they emphasize the complexity of the policy process over a number of years. They point, however, to extended periods of stability during which time policy issues receive little attention. A process central to Baumgartner and Jones’ theory is “punctuated equilibrium,” or stability interrupted by brief periods of upheaval and change. Accordingly, although the American political system is designed so as to limit sudden or extreme change, it is continually subject to unexpected alterations in “existing arrangements.” Baumgartner and Jones disagree with the view that policy agendas are controlled by subsystems composed of politicians, interest groups, and the media. Instead they suggest that it is only when new participants gain access to the policy process that policy subsystems are disrupted, change is possible, and issues rise to the top of the national agenda (Baumgartner and Jones, 1993, 20).

Kingdon and Baumgartner/Jones' Theories: Similarities and Differences

Kingdon and Baumgartner/Jones' theories have several similarities and obvious differences. They are in agreement that:

- Problem/issue definition is central to the process of agenda access and control.
- New policy images or symbols capture the attention of policy-makers and result in expanded support for an issue.
- For a problem to reach the national agenda, it must have an already-proposed solution.
- Presidential influence can be decisive in influencing agenda-setting.

The two theories differ, however, on several points:

- The rhythm of policy change:

“Both gradual evolution and punctuated equilibrium work in different parts of the agenda-setting process ... Gradual development in the policy stream, furthermore, is one of the reasons that entrepreneurs must work on their proposals over a long period of time, and not simply invent them instantaneously” (Kingdon, 1995, 227).

“Punctuated equilibrium, rather than stability and immobilism, characterizes the American political system” (Baumgartner and Jones, 1993, 236).

- The role of interest groups' influence on policy formation:

“Much of interest groups' activity in these processes consists not of positive promotion but rather of negative blocking” (Kingdon, 1995, 49).

“Interest groups play an important role in formulating questions, affecting public opinion, and defining the terms of the public debate” (Baumgartner and Jones, 1993, 190).

- The degree to which the mass media influences the process of policy formation:

“The media report what is going on in government, by and large, rather than having an independent effect on governmental agendas” (Kingdon, 1995, 59).

“The media play an integral role in the policy process by directing attention alternately toward different aspects of the same issues over time and by shifting attention from one issue to another” (Baumgartner and Jones, 1993, 103).

- The role of public opinion:

“Public opinion may sometimes direct government to do something but it more often constrains government from doing something” (Kingdon, 1995, 65).

“Public opinion is, as we have argued, one of the many venues in a pluralistic society. As a component of national mood perceived by many lawmakers, it certainly plays an important role (Baumgartner and Jones, 1993, 248).

One objective of this dissertation is to determine whether an integration of aspects of both theories might better explain the agenda-setting process. The approach was to examine the work of Kingdon and of Baumgartner and Jones with particular attention to the dynamics of mobilization and to the ideas that capture the attention of policy elites and the public. Ultimately, the intention was to determine the applicability and efficacy of each theory relative to the universal service case.

Within the context of the 1996 telecommunications policy-making, the work of Kingdon and of Baumgartner and Jones confirms that the goal of universal service remained within the 1996 Act partly as a result of a compelling new policy image and as the result of the mobilization of new advocacy groups. I found, however, that Kingdon (1995) and Baumgartner/Jones (1993) have a somewhat incomplete perception of agenda-setting. For example, although Kingdon ascribes a role to policy communities inside and outside government, and although Baumgartner and Jones emphasize the role of interest groups, neither theory takes into account the complex ways that foundations, and think tanks shape the policy agenda. In addition, Kingdon’s metaphor for the policy community, the “policy primeval soup” and Baumgartner and Jones’ reliance on punctuated equilibrium as a model for policy change are unsatisfactory when applied to the universal service policy process.

Old Laws and New Technologies

Universal service, as defined by the Communications Act of 1934, meant providing telephony or person-to-person voice communications, “in so far as possible to all people of the United States” (*Communications Act of 1934*. PL 416). Throughout 1994 and 1995, telecommunications policy proposals exhibited dynamic changes as competing values were promoted and policy entrepreneurs sought to find the right image with which to mobilize for a vote. As a result of compromise and the strategic use of ambiguity to garner the necessary support, the Telecommunications Act of 1996 contains implicit contradictory warrants. One warrant, the bill’s stated purpose, is deregulatory: “to increase competition in all telecommunications markets and to provide for an orderly transition from regulated markets to competitive and deregulated telecommunications markets ...” (S.652). The other warrant, a goal within the legislation, is regulatory: “to deliver a better quality of life through the preservation and advancement of universal service ... (S.652).

In brief, the purpose of the legislation was to make the nation's telecommunications laws compatible with 21st century communications technology. The bill removes impediments to competition that existed since 1934, thereby enabling the telecommunications industries including common-carriers, long distance, cable-television, and information-service providers to compete in a single market. Yet at the same time the bill deregulates, it also mandates subsidized universal access that assures communications services to rural areas, low-income citizens, and various public institutions, including public schools, libraries, and rural health-care facilities.

After more than a decade of acrimonious discussion, Congress crafted a compromise that could be supported by all of the players: corporations with vested interests in communications services, citizen advocacy groups, legislators representing both urban and rural populations, government agencies, and educational institutions. According to its advocates, primarily the communications industry and some citizens' advocacy groups the legislation would:

- transform culture;
- improve work productivity;
- enhance democratic processes by providing an electronic forum for all citizens;
- promote economic growth.

Its detractors were an unlikely coalition comprised of the following:

- Consumers Union and the Consumers Federation of America who anticipated rising prices;
- conservative senators who forecast universal service would destroy the competition that S.652 is designed to facilitate;
- civil libertarians who predicted that the bill's penalties for using the Internet to distribute "indecent material" to minors would restrict freedom of speech.

Using Kingdon's and Baumgartner/Jones' theories of agenda-setting as a frame of reference, I focus on the evolution of universal service policy over a ten-year period, from 1986 to 1995. The methods used include Kingdon's case-study techniques: the examination of public records, Presidential State of the Union addresses, and the national media's reporting of the universal service debate. I constructed a dataset to track the emergence and recession of universal service on the national policy agenda based on Baumgartner and Jones' system of coding articles from major news publications (the *New York Times*, the *Wall Street Journal*, the *Washington Post*) and data from the *Congressional Information Service (CIS)*.

Research Objectives and Analysis

Relying largely on similarities and differences noted earlier, (see **Table 2.1**, on page 23) between the work of John Kingdon and Frank Baumgartner/Bryan Jones, this dissertation analyzes data and tests a number of research objectives:

- | | |
|-----------------------------|---|
| <u>Research Objective 1</u> | To evaluate whether issue definition, indicated by increased numbers of media articles, was central to the process of agenda access as measured by congressional attention to telecommunications policy issues (Kingdon and Baumgartner/Jones). |
| <u>Research Objective 2</u> | To evaluate whether trends in telecommunications policy agenda access as measured by congressional attention was influenced by the presence of new policy images in media articles (Kingdon and Baumgartner/Jones). |
| <u>Research Objective 3</u> | To discover if a problem that reaches the national agenda must have a solution (Kingdon and Baumgartner/Jones). |
| <u>Research Objective 4</u> | To establish whether presidential leadership can be decisive in influencing agenda-formation (Kingdon and Baumgartner/Jones). |
| <u>Research Objective 5</u> | To determine whether American politics produces long periods of stability interrupted by short periods of dramatic change (Baumgartner and Jones). |
| <u>Research Objective 6</u> | To examine if interest groups play an important role in determining policy images and in fact often define the terms of the debate (Baumgartner and Jones). |
| <u>Research Objective 7</u> | To discover if a relationship exists between positive media tone and legislative action (Baumgartner and Jones). |
| <u>Research Objective 8</u> | To determine if public opinion, as one of many venues in a pluralistic society and a component of national mood, plays a role in agenda-setting (Baumgartner and Jones). |

I organized data longitudinally according to the prominence of universal service as a policy issue and relative to problem definition and interest group involvement. A process of triangulation, which distinguished patterns and relationships among a number of variables, captured the evolving nature of agenda-setting and the conditions that led to a successful legislative initiative in the universal service case. Triangulation, a technique particularly appropriate in research that involves a broad range of “historical, attitudinal, and behavior issues,” was central to the final analysis (Yin, 1994). Therefore, I used data from a variety of sources, in addition to quantitative and qualitative methods, to support and authenticate conclusions.

This is a dissertation about the way public policy agendas that shape our lives are set at the national level. To put into perspective universal service as an item of interest to the American public, one is reminded of Frances Cairncross' predictions of how the diminishing cost of telecommunications services will transform life in the 21st century. Cairncross writes: "the death of distance as a determinant of the cost of communications will probably be the single most important economic force shaping society in the first half of the next century. It will alter, in ways that are only dimly imaginable decisions about where people live and work, concepts of national borders, and patterns of international trade. Its effects will be as pervasive as the discovery of electricity. New telecommunications services, like the use of electrical appliances which enabled women to join the workforce, will change forever the nature of American society" (Cairncross, 1995, 1). The significance of Cairncross' assertion has become more apparent each year since 1995.

Chapter one provides an overview of the topic with regard to the organization of the dissertation, its theoretical base, and an outline of its content. Chapter two defines the theoretical constructs used in the study. Chapter three traces the evolution of universal service; describes, in general, congressional debate over the Telecommunications Act of 1996; and, highlights the role of the President, senators, media, the communications industry, and interest groups in forming telecommunications policy. Chapter four outlines the methods used in the study. Chapters five and six provide an analysis of the data in order to:

- Explain how current universal service goals that expand the entitlements of previous policy were included in legislation that is designed to promote competition and efficiency.
- Investigate the extent to which public advocacy by the United States President and Vice-President, media, and government elite attention may be factors that affect agenda-setting.
- Demonstrate, in the context of established agenda-setting theory, that the dynamics of agenda-setting are best explained by taking into account mobilization of interest groups representing corporate and public interests as well as the attention of the media and policy elites.

Chapter seven summarizes the results of the research as it relates to the Kingdon and Baumgartner/Jones theory and to the 1996 universal service law. Noted in chapter seven are aspects of the agenda-formation process that came to light during the course of this study and that receive insufficient attention from Kingdon and Baumgartner/Jones. Finally, an integration of the two theories is presented with an expanded view of what factors influence the agenda-formation process.

Two potential assets in any environment are an understanding of agenda-setting processes and an ability to define issues through the tactical representation of images and causal stories that

attract notice from previously uninterested persons. Problem definition has the potential to mobilize the previously uninterested, attach new solutions to old problems, and garner significant advocacy support for proposed initiatives. Nevertheless, other more subtle and less public processes are also at play in federal policy agenda-setting that serve as a foundation for the later phase of agenda-setting. These processes involve the crafting of strategic discourse, based on technical expertise with the goal of shaping political elite opinion and a public contest between competing interests. This study seeks to explain the process of agenda-setting further than has been done heretofore, and to do so by building on previous theory to present a new integrative model by which agenda-formation may be more accurately examined and explained.

Chapter 2

THEORY: AGENDA-SETTING

Central to this study is an understanding of agenda-formation at the federal level in the context of a democratic society. How does this process take place, and what if any role do American citizens have? A review of prominent agenda-setting theories over the past two decades reveals a number of perspectives, from John Kingdon's emphasis on the role of the policy elites to Anthony Downs' stress on public attention as an influence that is significant, despite frequently being short-lived. Although this dissertation will test only two theories, of John Kingdon and Frank Baumgartner/Bryan Jones, much of their work has its basis in contemporary agenda-setting theory. Therefore a brief survey of relevant agenda-formation literature provides a useful context and clarifies some of the many contributions that underlie and have been subsumed by Kingdon and Baumgartner/Jones.

E. E. Schattschneider: Conflict Expansion

In the introduction to her book on agenda-setting, *Making an Issue of Child Abuse*, Barbara Nelson refers to E. E. Schattschneider as the "dean of agenda-setting studies" (Nelson, 1984, 3). Schattschneider described America's system of government in terms of conflict over issues related to the public interest (Schattschneider, 1952). Although assigning an indirect role to average citizens, whom he referred to as "the crowd," Schattschneider was specific regarding their power:

The central political fact in a free society is the tremendous contagiousness of conflict. Every fight consists of two parts: (1) the few individuals who are engaged at the center and (2) the audience that is irresistibly attracted to the scene. The spectators are as much of the over-all situation as are the overt combatants. The spectators are an integral part of the situation, for, as likely as not, the *audience* determines the outcome of the fight. The crowd is loaded with portentousness because it is apt to be a hundred times as large as the fighting minority, and the relations of the audience and the combatants are highly unstable ... the audience is

overwhelming; it is never really neutral; the excitement of the conflict communicates itself to the crowd. *This is the basic pattern of all politics* (Schattschneider, 1975, 2).

It is his contention, however, that citizen participation in policy formation and governance is confined to choosing among the alternatives proposed by political leaders. Although 200 million Americans cannot govern directly, they do over time, through cooperation and participation in government processes such as paying taxes and voting, have the ultimate authority to accept, change, or reject decisions made by political elites (Schattschneider, 1975). Average citizens do not set the policy agenda. Instead, they make “a general, overall judgment about the broad tendency of government and the general results of public policy” (Schattschneider, 1969, 76).

Another of Schattschneider’s contentions is that conflict frequently leads to destruction or major change of policy subsystems (Schattschneider, 1975, 1-18). He maintains that “what happens in politics *depends on the way in which people are divided* into factions, parties, groups, classes, etc. The outcome of the game of politics depends on which of a multitude of possible conflicts gains the dominant position” (Schattschneider, 1975, 60). Conflicts that dominate become the issues that engage the attention of political elites and thereby attain agenda status.

With regard to this dissertation’s major theorists, Kingdon makes reference to Schattschneider only once in a footnote to support one of his primary tenets: “public policy-making can be considered to be a set of processes including ... the specification of alternatives from which a choice is to be made ...” (Kingdon, 1995, 2-3). As support for this idea, Kingdon quotes Schattschneider’s oft-cited phrase, “the definition of alternatives is the supreme instrument of power” (Schattschneider, 1975, 66). Basic to Kingdon’s theory, to be explained more fully later, is the notion that “normally, before a subject can attain a solid position on a decision agenda, a viable alternative [solution] is available for decision makers to consider” (Kingdon, 1995, 142). In addition, with the exception of a brief discussion of “questions of jurisdiction” (Kingdon, 1995, 155-159) that describes the impact of “turf battles” between federal agencies, Kingdon does not address directly the matter of political mobilization and policy subsystem dynamics.

Baumgartner and Jones, on the other hand, acknowledge that Schattschneider’s theory of conflict expansion, which they call a “Schattschneider mobilization” or a mobilization of bias, is

central to their principle of “institutional venue.” A change in institutional or policy venue that results in broadening the scope of the debate often precedes new policy (Baumgartner and Jones, 1993, 31). Likewise Baumgartner and Jones build on Schattschneider’s work, by describing how the strategic manipulation of policy images by political entrepreneurs often leads to conflict expansion, the mobilization of new advocates, and the undoing of long-standing institutional structures (Baumgartner and Jones, 1993, 36-37).

Anthony Downs: “Issue Attention Cycle”

Anthony Downs approaches agenda-setting from a different perspective, by focusing on citizen influence, which he traces by means of what he calls the “the issue attention cycle.” Using environmental policy as a case-in-point, Downs traces public interest through various stages. He begins with the pre-problem phase, before an undesirable social condition has engaged public attention; proceeds to a second phase, which involves broad and intense interest in solving the problem; continues through phase three, recognition of the costs of developing a solution; and concludes with a decline in enthusiasm for resolving the issue, often as a result of the expense related to doing so (Downs, 1972).

While Kingdon refers to Downs’ theory several times as confirmation of his own position concerning the short duration of public attention, Baumgartner and Jones use Downs’ work as support for their analysis of the role of institutional venue in agenda-formation. They refer to the Downsian cycle of interest attention as the “mobilization of enthusiasm.” In this case, those concerned with an issue call on the government to solve problems, usually through the allocation of resources. If resolution is difficult because a problem proves costly or complex, interest in the problem may decline, leaving behind a significant bureaucratic structure and long-term policy effects (Baumgartner and Jones, 1993, 88-89). This type of issue expansion is compared with Schattschneider’s “mobilization of criticism” that breaks down rather than builds enduring institutional arrangements. According to Baumgartner and Jones, both the Downs and Schattschneider varieties of mobilization may occur relative to the same issue over a period of time (Baumgartner and Jones, 1993, 101).

Downs' work is used as a point of reference by a number of public policy scholars. It describes succinctly the cyclical nature of public attention to policy issues. More recent writers on the topic of agenda-setting, however, have taken Downs' premise of an issue-attention cycle further, linking it back to political processes, policy subsystems, and the institutional legacy that often remains long after interest in a policy has waned (Nelson, 1984; Baumgartner and Jones, 1993; Kingdon, 1995).

Roger Cobb and Charles Elder: Issue Definition

A major contribution to agenda-formation literature is the book by Roger Cobb and Charles Elder, *Participation in American Politics: The Dynamics of Agenda Building*. Its authors use Schattschneider's term "redefinition" as a point of departure. Cobb and Elder speculate that a problem often gains standing on the formal policy agenda only after its proponents engage additional advocates by redefining the issue, frequently through substituting one policy image for another (Cobb and Elder, 1983, 44-47). Therefore, language is the tool employed by opposing groups to obtain recognition and mobilize support (Cobb and Elder, 1983, 56). The process of issue definition enables policy entrepreneurs to attract the attention of new groups by expanding the conflict associated with a particular policy issue or question.

Cobb and Elder emphasize the fact that problems are socially constructed and as a result have a number of possible definitions (Cobb and Elder, 1983, 172-175). Problem definition often dictates policy in that a new image and definition often requires a new solution or policy alternative. Like Kingdon, they cite Schattschneider, "... the definition of alternatives is the supreme instrument of power" (Schattschneider, 1975, 66) to characterize the power of problem interpretation and the strategic process of issue change over time.

Most relevant to this study is Cobb and Elder's focus on the role of mass media in issue expansion, which they relate to the use of symbols to attract public attention. Unlike Downs, they do not describe policy formation as a cyclical, political process. Rather, they indicate that at a certain stage in the agenda-setting process, policy entrepreneurs are dependent to some extent on public attention generated by the mass media. They describe the strategic use of symbols to

arouse, provoke, and dissuade the public, with mass media as the vehicle for dissemination, to expand conflict and attract new participants (Cobb and Elder, 1983, 141-150).

Although a point of reference for later theorists (Baumgartner and Jones, 1993; Kingdon, 1995; Nelson, 1984), Cobb and Elder do not consider the agenda-setting process longitudinally other than in a brief discussion of issue durability (Cobb and Elder, 1983, 158). They do address, albeit briefly, the significance of agenda-setting for democratic governance and popular participation. By recognizing the role that various groups play in issue expansion (Cobb and Elder, 1983, 103-108), Cobb and Elder's work reflects the potential for inclusion and citizenry mobilization as part of democratic politics. Furthermore, they suggest that the study of government from an agenda-setting point of view reveals a dynamic relationship between popular participation, social change, and the public policy-making process (Cobb and Elder, 1983, 162-165).

Barbara Nelson: Valence Issues

Using the issue of child abuse as a case-study, Barbara Nelson views agenda-setting from yet another perspective, that is "how public officials learn about new problems, decide to give them their personal attention, and mobilize their organizations to respond to them" (Nelson, 1984, 20). Nelson cites five common catalysts for agenda-setting: catastrophes, technological and demographic change, inequitable distribution of resources, organizational growth, and, "structural readiness for change" (Nelson, 1984, 24). Three of these are central to the case: technological change, inequitable distribution of resources, and "structural readiness for change." In the universal service case the critical technologies evolved more rapidly than related policies, and equity of access to advanced information technologies became a central issue in the universal service policy debate.

In addition, Nelson notes a continuum between conflictual position issues, and consensual valence issues (Nelson, 1984, 26-27). Position issues raise strong, antagonistic responses, while the valence issues elicit fairly uniform agreement because of two characteristics, a "*lack of specificity* and their attempt to *reaffirm the ideals of civic life*" (Nelson, 1984, 28). Though Nelson's work is not designed to develop a theory of agenda-setting

per se, many aspects are relevant to the universal service case. Of particular usefulness is her emphasis, like Cobb and Elder, on the importance of understanding that reality in the eye of the beholder (Nelson, 1984, 126). Valence issues such as universal service, which support equity and civic values, tend to elicit support of policy elites and the general public, but do not necessarily obtain endorsement from the business community and their congressional supporters (Nelson, 1984, 28-29).

Deborah Stone: Problem Definition

There is general agreement among scholars of agenda-formation that problem definition is an important factor in determining whether or not an issue reaches the national policy agenda. A key work in any discussion of problem definition is Deborah Stone's *Policy Paradox: The Art of Political Decision Making*. Stone disputes the rational-policy-analysis model, which posits that policy decisions are made in a sequence of rational steps. She proposes instead an alternative that recognizes a fundamental paradox of policy formation. Stone writes, "Problem definition is a matter of representation because the description of a situation is a portrayal from only one of many points of view" (Stone, 1997, 133). Therefore individuals, interest groups, and government agencies choose to portray issues strategically, from different perspectives, in order to promote the course of action they perceive to be most to their advantage. Stone makes her point by describing various types of language, causal stories, and rhetoric used in the political process to define policy issues; in short, the language of problem or issue definition.

As proposed by Schattschneider in terms of conflict expansion, and further elucidated by Cobb and Elder relative to the redefinition process, support for an agenda item is prompted often through a new problem definition. This process plays a strategic role in agenda-setting within the context of legislative policy formation and decision-making (Bosso, 1994; Baumgartner and Jones, 1993; Browne, 1995; Cobb and Elder, 1983; Elder and Cobb, 1983; Jones, 1994; Kingdon, 1995; Mucciaroni, 1995; Nelson, 1984; Sabatier, 1993).

While Kingdon acknowledges the importance of problem definition, he limits his discussion to the process, describing the role of focusing events, values, comparisons (equity issues), and the categorization of problems play a role in problem definition (Kingdon, 1995,

110-113). Baumgartner and Jones place more stress on the centrality and effects of issue definition. They write, “Issue definition, then, is the driving force in both stability and instability, primarily because issue definition has the potential for mobilizing the previously uninterested” (Baumgartner and Jones, 1993, 16). Issue definition is basic to their analysis of agenda access because it is able to provoke the punctuated equilibrium cycle in politics. The example of universal service illustrates the redefinition process.

Theodore Vail, chief architect of the Bell Company, promoted the concept of universal service as an entitlement that should be extended to all citizens. Vail’s strategy was to create a system as embodied in the AT&T slogan “one policy, one system, universal service” and by so doing capture the market (Mueller, 1989). During the 1995 debates over universal service, business leaders and their congressional supporters portrayed universal service as a threat to the American economy while proponents characterized universal telecommunications services as the essential factor enabling citizens’ participation in the 21st century. How the policy was initially defined to support AT&T’s goals, and then later redefined to ensure that the “information highway” benefited a broader constituency than corporate America, is a consummate example of political reasoning as defined by Deborah Stone:

It [political reasoning as strategic representation] is designed to build constituencies, to break up old alliances and forge new ones, and to galvanize people into action, or alternately to maintain old power structures and lull people into complacency. It seeks to evoke values and emotions by presenting something as good or evil, innocent or guilty, responsible or not, possible or impossible, strong or weak, right or wrong (Stone, 1997, 379).

To varying degrees Kingdon and Baumgartner/Jones acknowledge the importance of problem definition, but neither theory offers a thorough analysis. Kingdon emphasizes the use of problem definition as a tactic of policy elites. Baumgartner and Jones describe the role of policy definition and its attendant creation of competing images as a complex process that is “at the heart of the political battle” (Baumgartner and Jones, 1993, 29) and beyond the control of any single political actor. It is Stone who deconstructs the process most successfully. In an article focused on causal stories as the product of problem definition and image making, she writes:

Conditions, difficulties, or issues thus do not have inherent properties that make them more or less likely to be seen as problems or to be expanded. Rather political actors *deliberately portray* them in ways calculated to gain support for their side. And political actors, in turn, do not simply accept causal models that are given from science or popular culture or any other source. They compose stories that describe harms and difficulties, attribute them to actions of other individuals or organizations, and thereby claim the right to invoke government power to stop the harm (Stone, 1989, 282).

As will be apparent in chapter three, Stone's explanation is most relevant to a discussion of the tactics employed by a coalition of senators from rural states during the 1995 debate on universal service and telecommunications policy. They spoke eloquently from the Senate floor painting a picture of the "harms and difficulties" that would befall rural Americans and children if universal service were abandoned. In addition, using the strategy described by Stone, they called upon the government "to stop the harm." The same tactic was used by education and library policy groups and the Clinton-Gore administration to describe the danger of a world divided into "information haves and information have-nots" that would result if telecommunications policy reform benefited only the wealthy.

Paul Sabatier and Hank Jenkins-Smith: the Advocacy Coalition Framework

Developed by Paul Sabatier and Hank Jenkins-Smith in response to perceived inadequacies in the "stages heuristic" or traditional approaches to analysis of the policy process, the Advocacy Coalition Framework (ACF) deals with the entire policy process rather than just agenda-setting (see **Figure 2.1** on page 19). Nevertheless, the ACF needs to be acknowledged in a review of the agenda-formation literature because the ACF enhances understanding of complex policy processes such as the universal service debate with its shifting dimensions and policy-oriented learning across subsystems.

Sabatier and Jenkins-Smith's ACF is a synthesis of previous policy-implementation theory. The four main assumptions of ACF are that:

- (1) the process of policy change and learning takes place over time;

- (2) the most useful way to consider policy change over time is to focus on policy subsystems, that is, the interaction of those who seek to influence the policy-process outcome;
- (3) subsystems must include an intergovernmental dimension;
- (4) public policies can be conceptualized in the same manner as belief systems, i.e., as sets of value priorities and causal assumptions about how to realize them (Sabatier and Jenkins-Smith, 1993, 178).

Sabatier and Jenkins-Smith also note that real world changes (in the case of universal service, evolving technology and a new President) often alter a situation and result in the redistribution of political resources and alliances among subsystems.

The ACF is particularly relevant to a full discussion of the Telecommunications Reform Act of 1996 because of its focus on policy subsystems. Telecommunication policy-reform discussion unfolded over more than a decade and involved a multitude of policy subsystems, not only at different levels of government but also throughout the business world and legal system, as well as in the media profession and in the education and public policy communities. Policy subsystems, as defined by Sabatier and Jenkins-Smith, are “those actors from a variety of public and private organizations who are actively concerned with a policy problem ... and who regularly try to influence public policy in that domain” (Sabatier and Jenkins-Smith, 1993, 179).

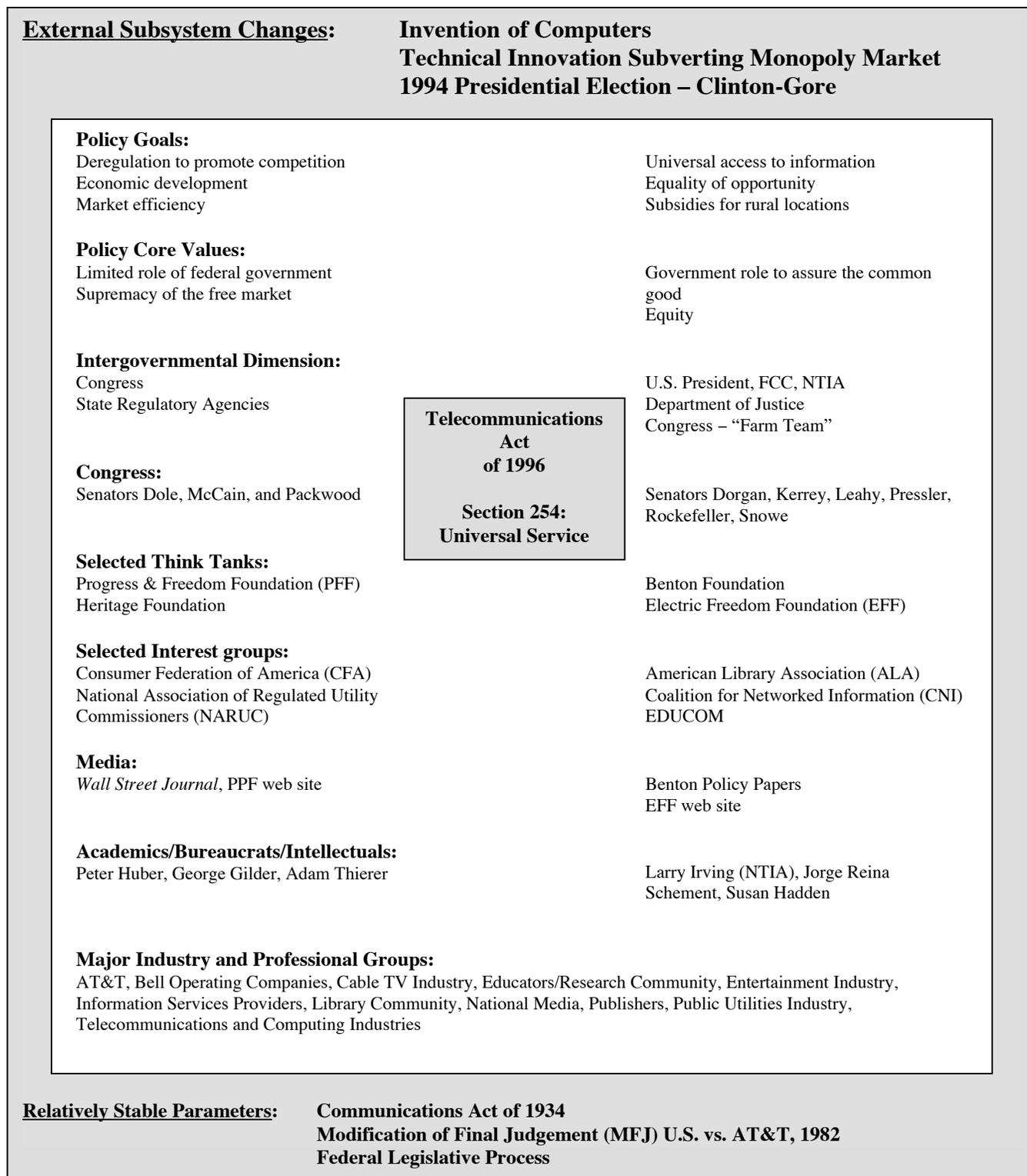
Advocacy Coalition Framework, **Figure 2.1** (see page 19) presents the telecommunications advocacy coalition graphically. A true representation, however, would require a diagram capable of portraying movement over time, as some members of the policy subgroups changed sides during the debate. Greg Simon, a policy advisor to Vice President Gore, remarked of Senator Dole that comparing Dole’s rhetoric with his votes “makes it look like he’s trying out for the role of Two-Face in the new Batman movie” (Kirk, 1995, 1660). In addition, other primary actors such as the *Wall Street Journal* and the Benton Foundation did not limit their discussion to a single position.

In a similar vein, in the 1970s as litigation began to erode communications regulatory policy, protection of universal service became part of AT&T’s strategy to protect its monopoly status. Milton Mueller notes that as “a revised ideology of ‘universal service’ was pressed into the service of telephone monopolies in the 1970s and 1980s, its meaning changed in ways that obscured what it meant when it was coined in 1907” (Mueller, 1993, 367). In addition the policy

Figure 2.1

Advocacy Coalition Framework

Competing Advocacy Coalitions within the Telecommunications Policy Subsystem



goals of the Clinton-Gore administration were redefined over time. The economic development policy core values initially supported by Senator Gore converged during the Clinton-Gore presidential campaign with deep core values such as distributive justice and a concern for the well being of future generations.

In summary, the values of the telecommunications policy subsystems included “deep core” normative beliefs such as equal access to information facilitated by telecommunications technology on the one hand, and “policy core” beliefs such as, the paramount importance of economic development, on the other. It was the clash of these values centered on the universal service obligation (whether or not and what level of telecommunications services are an entitlement) that were disputed passionately in the public arena and became a focal point for discussions of telecommunications reform throughout 1995. Passage of the Telecommunications Act of 1996 is evidence that, as suggested by Sabatier and Jenkins-Smith, learning occurred across policy subsystems.

Timothy E. Cook: News Media as a Political Institution

In his book *Governing With the News*, Timothy Cook develops a model of the media as an influential force in the agenda-setting and public policy process. He writes, “the American news media can and do directly influence perceptions of public moods, and in other ways shape the context of one legislator asking another for support, whether or not the public was involved, had chosen sides or was even aware of the issue” (Cook, 1998, 11). Cook emphasizes the media’s role as a filter, its influence on the public at large, and its function as a conveyer of information among political actors.

Cook points out that political theorists such as Schattschneider who were working in the 1950s and 1960s, “the heyday of the theory of pluralism,” saw a different political system than that of the mid-1990s. Instead of a stable situation, with a durable group of players negotiating according to agreed-upon rules, the current situation is fluid and unstable, with political entrepreneurs and interest groups aggressively promoting not only policy issues but also their preferred solutions (Cook, 1998, 120-121). This is to say nothing of the extent to which the news media is more pervasive in the mid-1990s than it was 30 or even 20 years ago.

Cook uses the term “negotiation of newsworthiness” to describe the current relationship between media and political processes. In Cook’s view, there is an ongoing, interactive process between public officials and journalists that has an influence on agenda-setting: “Politicians dictate conditions and rules of access and designate certain events and issues as important by providing an arena for them. Journalists, in turn, decide whether something is interesting enough to cover, the context in which to place it, and the prominence the story receives” (Cook, 1998, 12). Indeed, Cook speculates that as a result of the lack of strong, pervasive institutions such as political parties, the news media have taken command of political communication (Cook, 1998, 83). One can extrapolate from Cook’s description that media is the link in the 1990s between Schattschneider’s “few individuals who are engaged at the center” and “the audience that is irresistibly attracted to the scene.” In terms of agenda-setting, media is a resource used by policy entrepreneurs, not always successfully, to mobilize for or against an issue.

Agenda-Setting Theory: John Kingdon and Frank Baumgartner/Bryan Jones

All of the above theories and studies offer insight into aspects of the universal service agenda-formation process (conflict expansion, citizen influence, problem redefinition, the role of public officials, and policy learning). It is the work of John Kingdon and Frank Baumgartner/Bryan Jones, however, that will be examined in depth because agenda-setting over a period of time is the main subject of this research. At first reading, there are both striking similarities and obvious differences between the two theorists. These are summarized in **Table 2.1** on page 23.

John Kingdon (1995) separates the agenda-setting process into three streams (problems, policies, and politics) and analyzes the conditions under which all three come together. According to Kingdon, policy-makers recognize problems, suggest solutions, and engage in political activities that oppose or promote policy change. The convergence or coupling of the three streams pushes issues to higher agenda prominence (Kingdon, 1995, 85-86) and onto the decision agenda (Kingdon, 1995, 201-203), often as the result of the presence of a policy window. Policy windows open when there is a change in the political stream (a new administration or a shift in national mood), they remain open for only a short period of time, and

they offer opportunities for action (agenda-setting) by policy entrepreneurs (Kingdon, 1995, 179-183). If participants cannot or do not take advantage of such an opportunity, they must bide their time until the next policy window opens (Kingdon, 1995, 184-190).

Kingdon characterizes alternatives, as affected more by the policy than by the political stream. Alternatives are an essential part of the agenda-setting process because a viable alternative or solution must be available before an issue can attain a position on a decision agenda (Kingdon, 1995, 16-18). Schattschneider describes alternatives as the heart of a robust democratic process: “*Democracy is a competitive political system in which competing leaders and organizations define the alternatives of public policy in such a way that the public can participate in the decision-making process*” (Schattschneider, 1975, 138). For Kingdon alternatives are generated by policy specialists, “the hidden cluster of participants:” academics, career bureaucrats, congressional staffers, and analysts who work for interest groups (Kingdon, 1995, 200-201). There is no role for the public since most people in Kingdon’s view lack the background to participate in the decision-making process.

Kingdon’s criteria for the acceptance of solutions are technical feasibility, congruence with the values of the policy community, anticipation of future constraints (i.e., budgetary), and receptivity by politicians and the public (Kingdon, 1995, 16-18). Kingdon portrays a process that seems to be designed to discourage rather than to engage the public in meaningful deliberation. He writes: “People like presidents, senators and cabinet secretaries have their own agendas. These officials may attempt to mobilize the public in support of their objectives but on many occasions they will choose not to. When they do mobilize expanded publics, furthermore it may be more in pursuit of passage than for agenda-setting” (Kingdon, 1995, 67). Kingdon’s characterization of the agenda-setting process is unlike that of Schattschneider, who describes a process by which public officials and interest groups through their deliberations enable citizen participation.

Table 2.1

Comparison of the Theories of Kingdon and Baumgartner/Jones

Kingdon

Baumgartner and Jones

Similarities:

ISSUE – PROBLEM DEFINITION:

There are great political stakes in problem definition. Some are helped and others are hurt, depending on how problems get defined (110).

Issue definition is the driving force in both stability and instability, primarily because issue definition has the potential for mobilizing the previously disinterested (16).

POLICY IMAGES:

Another variation on the focusing event is the emergence and diffusion of a powerful symbol. A subject is on the mind of important people, and a symbol comes along to focus their attention (97).

Policy images play a critical role in the expansion of issues to the previously apathetic (25).

SOLUTIONS to PROBLEMS:

There must be a solution for the problem (142).

There must be an image or an understanding that links the problem with a possible governmental solution (27).

PRESIDENTIAL INFLUENCE:

No single actor in the political system has quite the capability of the President to set agendas in given policy areas for all who deal with those policies (23).

Presidential influence can be decisive (241).

Differences:

ISSUE OF CONTEXT OVER TIME:

[Policy] windows sometimes open with great predictability. Regular cycles of various kinds open and close windows on a schedule (186). One cycle is the swing between periods of reform and quiescence. Another is the swing between liberal and conservative national moods (189).

Our primary thesis is that the American political system, built as it is on a conservative constitutional base designed to limit radical action, is nevertheless continually swept by policy change, change that alternates between incremental drift and rapid alterations of existing arrangements (236).

INTEREST GROUPS:

Much of interest group activity in these processes consists not of positive promotion, but rather of negative blocking (49).

Interest groups play an important role in formulating questions, affecting public opinion, and defining the terms of the public debate (190).

MASS MEDIA:

The media report what is going on in government, by and large, rather than having an independent effect *on* governmental agendas (59).

Each time there is a surge of media interest in a given topic, we can expect some degree of policy change (20). The media play an integral role in the policy process by directing attention alternately toward different aspects of the same issues over time and by shifting attention from one issue to another (103).

PUBLIC OPINION:

Public opinion may sometimes direct government *to* do something but it more often constrains government *from* doing something (65).

Public opinion is, as we have argued, one of many venues in a pluralistic society. As a component of national mood perceived by many lawmakers, it certainly plays an important role (248).

On a related note, Kingdon stresses the role of indicators, things that show that a problem exists or that a change has occurred in the state of a system. Indicators may be routine monitoring reports, what Kingdon refers to as the countable problem, or documents that come to the attention of government officials. He also notes that “focusing events, crises, and symbols” frequently motivate government action. Indicators and focusing events serve several purposes. They direct attention to something that is already on people’s minds, they function as an early warning, and they result often in a redefinition of the problem (Kingdon, 1995, 90-98).

Kingdon’s work on agenda-setting reflects his methods, to be examined more closely in chapter four. He concentrates on interviews with “federal government officials and those close to them,” and case studies of policy initiation and non-initiation (Kingdon, 1995, 231). Therefore, he places emphasis on presidential influence and policy elites, whom he refers to repeatedly as “important people.” Unlike Baumgartner and Jones, and Cook, Kingdon attaches somewhat less importance to problem definition, policy images, media attention, interest groups, and public opinion.

Like Kingdon, Frank Baumgartner and Bryan Jones approach agenda-setting by concentrating on three analytical streams. The first concerns policy change, or the manner in which new issues are selected for the national policy agenda. The second stream analyzes the way policy subsystems insulate organizational arrangements and encourage stability. The third, a social-choice perspective, examines equilibrium processes and the mobilization of bias, a concept central to Schattschneider’s theory (Baumgartner and Jones, 1993, 237-238). Contrary to Kingdon’s streams, which appear to converge by chance and remain almost exclusively within the domain of political elites and government officials, Baumgartner and Jones ascribe important roles to the mass media and to the public-at-large.

Baumgartner and Jones emphasize development of “new alternatives” and policy change through the redefinition of old issues (Baumgartner and Jones, 1993, 11). They point to patterns of stability, when for extended periods of time policy issues receive little attention. These are interrupted by brief periods of upheaval. This process of stability and rapid change is referred to by Baumgartner and Jones as “punctuated equilibrium” and is central to Baumgartner and Jones’ thesis (Baumgartner and Jones, 1993, 18-21). They suggest that although the American political

system is designed to limit sudden or extreme change, it is nevertheless continually subject to unexpected alterations in “existing arrangements” and, as a result, to policy change (Baumgartner and Jones, 1993, 37-38).

Baumgartner and Jones disagree with the argument that policy-making is controlled by policy subsystems composed of a “hidden cluster of participants,” politicians, interest groups, and the media (Baumgartner and Jones, 1993, 21). They find that the disruption of policy subsystems and the mobilization of previously uninterested groups typically occurs as described by Cobb and Elder, Kingdon, Nelson, and Stone, through issue redefinition that employs rhetorical techniques such as causal stories, numbers, and symbols. It is a mobilization dynamic, which often results from the competing visions of alternate advocacy coalitions.

According to Baumgartner and Jones, the many venues across which the American political system operates create, “a self-reinforcing system leading to much more rapid change than otherwise would be possible” (Baumgartner and Jones, 1993, 240). They regard media interest as a major indicator of agenda status and a critical factor in the agenda-setting process. Finally, unlike Kingdon, Baumgartner and Jones consider public opinion to be an important realm for agenda-setting (Baumgartner and Jones, 1993, 248). Citizen indifference is, in Baumgartner and Jones’ analysis, a major cause for policy stability but that stability is always subject to change. In a democracy, conflict may be expanded at any time, with the result that the previously inattentive become engaged, interest grows, and previously stable arrangements are disrupted (Baumgartner and Jones, 1993, 18-21).

Similarities

Both Kingdon and Baumgartner/Jones assign several of the same characteristics to the agenda-setting process (see **Table 2.1** on page 23). However, they place a different emphasis on the importance of those characteristics. These differences of emphasis which appear to relate to some extent to their methods, to be examined in chapter four. For now it is sufficient to note that Kingdon’s research involved extensive interviews with governmental elites, while Baumgartner and Jones coded thousands of news media articles and Congressional hearings over a 90-year

period. In addition, Baumgartner and Jones tracked membership numbers and resource growth of interest groups.

One example of a conceptual similarity but with a different emphasis is that both theorists describe the President's influence on the agenda-setting process as unparalleled. Kingdon states that "no single actor has the President's capacity to influence the agenda" (Kingdon, 1995, 23). Kingdon lists four reasons for presidential influence. The first includes a set of institutional resources such as the veto and the right to fill key positions with people responsive to the presidential agenda. Second, in comparison to Congress, the executive branch is a unitary decision-making body, so that the President's agenda is likely to be supported by colleagues. Third, the President commands more public attention than any other political figure. And fourth is the President's ability to control the national agenda when Congress is predominately composed of members of his political party. This explanation of the presidential role is typical of Kingdon's emphasis on traditional sources of political authority and influence.

Baumgartner and Jones place less importance on presidential influence although they state that "no single actor can focus attention as clearly, or change the motivations of a greater number of other actors than the president" (Baumgartner and Jones, 1993, 241). They are more concerned with "institutional locations where authoritative decisions are made concerning a given issue" and their relationship to "policy images" (Baumgartner and Jones, 1993, 25-35). The executive branch of the federal government is merely one among many policy venues. What Baumgartner and Jones regard as most significant is the way in which all policy-makers, including the President, seek to move issues between venues, and their attendant structuring of policy images (Baumgartner and Jones, 1993, 31-35).

There is general agreement between the two theories that issue definition, often expressed as a compelling image or symbol, is central to the study of agenda access and control. Baumgartner and Jones stress issue definition as the driving force for mobilizing action leading to agenda access. Apathy is a key variable in Baumgartner and Jones' study, with mobilization of the apathetic through image manipulation serving as the link between the partial equilibria of policy subsystems and the system of governance (Baumgartner and Jones, 1993, 21). Kingdon gives the matter of issue definition less attention, emphasizing instead the strategies of policy

entrepreneurs, who use tactics such as trying to “bring problems into the personal experience of important people by giving them a first-hand look,” thereby capturing the attention of “important people” (Kingdon, 1995, 115).

In addition, although these theorists agree on the importance of a compelling policy image for agenda access, they differ regarding the audience or venue to which the image is directed. Kingdon writes, “Another variation on the focusing event is the emergence and diffusion of the powerful symbol. A subject is on the mind of important people and a symbol comes along to focus their attention” (Kingdon, 1995, 97). Baumgartner and Jones analyze the policy image more closely. In their words, “Every policy image has two components: an empirical and an evaluative. We refer to the evaluative component of a policy image as its *tone* ... Tone is critical to issue development because rapid changes in the tone of a policy image held by key social actors (such as the mass media) often presages changes in patterns of mobilization” (Baumgartner and Jones, 1993, 26).

Both Kingdon and Baumgartner and Jones state that problems must be linked to solutions. For Kingdon, solutions are generated in the policy stream by persons with expertise in a given policy area. Once the policy window or agenda access becomes available, and the three streams—politics, problems, and policies (alternatives)—come together, “the chances of a given subject rising on the agenda is markedly enhanced” (Kingdon, 1995, 198). Baumgartner and Jones tie the definition of a problem to its image and institutional venue, then link both to the solution or governmental response. Rather than seeing fluid streams, they describe a tightly coupled, interdependent process (Baumgartner and Jones, 1993, 28-29).

Differences

Both theories describe America’s constitutional system as one designed to promote stability (see **Table 2.1** on page 23). Therefore, long periods of incremental change in policy domains are interrupted by brief periods of agenda access. But while Kingdon focuses on politics as a cyclical process of elections and new political appointees, Baumgartner and Jones emphasize the complexity of the policy process over time and describe a less regularized system.

They subscribe to “a punctuated equilibrium model ... [rather than] the dynamic equilibrium model implicit in any discussion of cycles” (Baumgartner and Jones, 1993, 245).

Interest groups are another influence on the agenda-setting process that receive a patently different treatment in these two theories. While Kingdon acknowledges the importance of interest groups in the political process, his research indicates that they are likely to block agenda items and to propose amendments or attach alternatives to agenda items, than to place an issue on the agenda (Kingdon, 1995, 51). He attributes this to the fact that interest groups are “often concerned with protecting current benefits and prerogatives” (Kingdon, 1995, 67).

To the contrary, Baumgartner and Jones find that interest groups play an important role in formulating questions especially as these are represented in advocacy coalitions (new alternatives), affecting public opinion, defining the terms of the debate, and determining policy venues and outcomes (Baumgartner and Jones, 1993, 190). They document the changing nature and growing influence of interest groups in recent years. For example, they write:

One of the reasons nuclear power policy became much more conflictual starting in the 1960s was that the interest group environment changed. As citizens' groups grew and mobilized, increasing numbers of opponents, they pushed their issues onto the public agenda. Similarly in the cases of pesticide policy and smoking and tobacco ... changes in the area of agriculture began to correspond to the changes in how those policies were treated. So mobilization of interests appears to play an important role in determining policy images, venues, and outcomes (Baumgartner and Jones, 1993, 184).

In the telecommunications case, during discussions of universal service in the early 1990s a pattern of interest group mobilization emerged that was similar to that described by Baumgartner and Jones. A coalition was formed that included education, public health care, consumer rights, labor, civil rights, and library groups. Their rhetoric complemented that of the Clinton-Gore administration and the “Farm Team,” a coalition of senators from rural states. These groups formed a coalition to support an expanded definition of universal service and served as a powerful counterbalance to business interests coalition (Markoff, 1993, 2).

The importance of the media in influencing the national policy agenda is also a point of variance between Kingdon and Baumgartner/Jones. In Kingdon's words, the media “have no

staying power,” and their impact on the national policy agenda is indirect (Kingdon, 1995, 57-61). Baumgartner and Jones, on the other hand, emphasize the media’s capacity to indicate the public mood, link all venues, and set the context for agenda change (Baumgartner and Jones, 1993, 107, 184).

Associated with media attention and central to this dissertation is the matter of public opinion and its role in agenda-setting. Kingdon suggests that the public is rarely informed enough to affect directly a substantive debate concerning policy alternatives. He argues that the public, like interest groups, more often prevents action rather than initiating it. Baumgartner and Jones seem to concur. They write, “our evidence suggests that mass mobilizations and public reactions often occur late in the issue development process, after many of the most important issues have already been decided during elite-level debates ...” (Baumgartner and Jones, 1993, 248).

Nevertheless, while Baumgartner and Jones do not claim a direct correlation between media interest and public concerns or policy outcomes, the theorists do note that change occurs and new issues attain agenda status as interest in an issue expands. This is usually the result of media attention and of a broader range of people becoming involved (Baumgartner and Jones, 1993, 125). Baumgartner and Jones also observe that although the American system seems to pay more attention to policy issues that concern business interests and the middle class, the possibility of mobilization and rapid change across multiple venues assures that “small groups of elites do not control the process” (Baumgartner and Jones, 1993, 249).

Summary

It is often the shades of difference between Kingdon’s and Baumgartner/Jones’ theories that are most instructive. For example, both theories are in agreement that with regard to agenda-setting, intervals of stability alternate with short periods of disruption in agenda-setting, but the theorists explain this phenomenon differently. While Kingdon presumes a stable situation until “problems, politics, and problems converge,” and notes the cyclical nature of the political process, he does not explore the reason for that convergence. Baumgartner and Jones observe that periods of equilibrium tend to be “periodically punctuated by dramatic change.” They

support this statement through their coding and analysis of media coverage and congressional hearings in nine policy areas from 1900 to 1990. They reject, however, the significance of political cycles, which were clearly relevant in the universal service case.

In fact, an analysis of the recent universal service policy process displays aspects of both Kingdon's and Baumgartner/Jones' theories. Certainly Kingdon's three streams are evident: policies (telecommunications and universal service); problems (how to continue universal service in a competitive environment); and, politics (presidential, legislative, and interest groups). Kingdon ascribes agenda-setting power to political elites, but in the universal service case there were many more players. Although Vice President Gore and the rural senators took the lead during the final days of legislative debate, it was the lobbying efforts of a number of educational, library, and medical associations, in collaboration with various policy groups, that expanded the issue to previously apathetic citizens.

Kingdon takes an almost casual approach, what he terms "residual randomness" (Kingdon, 1995, 222) to the agenda-setting process. His three streams, (problems, politics, and policy) converge and "windows open in policy systems" (Kingdon, 1995, 166) because of a focusing event such as a crisis or the emergence of a powerful symbol, which in the case of telecommunications legislation was a metaphor, the information superhighway. Policy solutions or alternatives float to the surface of the "policy primeval soup." These are selected and attached to policy problems by policy entrepreneurs (Kingdon, 1995, 116-144). The open window allows agenda access but is, as Kingdon, concludes "probabilistic." There is some degree of pattern in what he describes, but there is an almost equal "degree of unpredictability" (Kingdon, 1995, 206).

Baumgartner and Jones, on the other hand, employ two theories of mobilization: the Downsian mobilization of enthusiasm that leads to the creation of new institutions; and the Schattschneider mobilization of criticism, which frequently results in the destruction of actual institutional structures (Baumgartner and Jones, 1993, 239). Both types of mobilization initiate change in stable policy subsystems and have long-term implications. They create new institutional arrangements, whose result is what Baumgartner and Jones refer to as "structure-

induced equilibria,” often leaving a legacy long after media and legislative attention have faded (Baumgartner and Jones, 1993, 238-239).

The universal service policy debate was complex, not only because of complicated technological and regulatory issues, but also because the term was used to conceptualize the problem of ensuring equitable access to information. The case was further complicated by the National Information Infrastructure (NII)—information superhighway rhetoric of the Clinton-Gore administration and also by the hotly contested matter of industrial policy, namely whether the government should support the development of new technology. Nevertheless, the universal service case is an example of an agenda-setting process and policy-making that has significant implications for the lives of all citizens. It is instructive to use agenda-formation theory to investigate how the national policy agenda in 1995 came to include telecommunications policy, and why that policy took the form that it did.

Chapter 3

THE UNIVERSAL SERVICE CASE

Communications Act of 1934: For the purpose of regulating interstate and foreign commerce in communication by wire and radio to make available in so far as possible to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication, and for the purpose of securing a more effective execution of this policy by centralizing authority heretofore granted by several agencies and by granting additional authority with respect to interstate and foreign commerce in wire and radio communication there is hereby created a commission to be known as the “Federal Communications Commission,” which shall be constituted as hereinafter provided, and which shall execute and enforce the provisions of this Act.

Universal Service and the Communications Industry: A Brief History

The Communications Act of 1934 governed the regulation of America’s communication services for over 60 years. Yet at the heart of the 1934 Act was a paradox that the language seems to recognize: that universal service be made “available in so far as possible to all people of the United States ... and that it be an “efficient, Nation-wide” service. In fact, it is not efficient to provide communication services to all Americans. The expense of serving remote, sparsely populated areas of the U.S. far exceeds the revenues, and providing phone service to inner-city residents is not always profitable. The solution to providing universal telephony services, that is person-to-person voice communications, evolved into a complex system of intra-industry transfers and subsidies from urban to rural areas, from long distance to local services, and from business customers to residential subscribers. The matter of subsidies, to be explained later, is at the center of controversies over telecommunications regulation.

Universal service was codified legally by the Communications Act of 1934. Prior to 1934, AT&T, whose dominance was reinforced by state regulation, monopolized the market. In 1930, 80% of local exchange customers subscribed to AT&T while its subsidiary, Western Electric, sold 92% of all telecommunications equipment, and AT&T Long Lines controlled 100% of long distance service. Following the Great Depression, Congress commissioned studies of several critical industries. One result of the subsequent report on the communications industry was the passage of the Communications Act of 1934. It established and delegated control for communication services to the Federal Communications Commission (FCC) (Williams, 1991, 204). The most far-reaching policy goal of this early communications legislation was the mandate that “efficient” communications services must be made available universally, “to all people of the United States ... at reasonable charges.”

The lack of specificity concerning what constitutes “efficient” and “reasonable” allowed considerable latitude for interpretation with regard to what came to be known as universal service policy. In fact Gerald Brock notes that throughout the years since 1934, “when it was useful to explain the principle [of universal service] in economic terms, it was identified with network externality [the more people connected to the network, the greater its value]; universal service must be sought in order to maximize the value of the telephone network for all. However, the universal service principle is more comprehensive than network externality and has been used to support very high cost network development in remote areas that would not qualify through an economic computation of network externality” (Brock, 1994, 75). Interpretations of both the initial impact of universal service and its relevance over time, are a matter of perspective. As Colin Blackman has argued, “on closer examination, universal service is revealed as the stuff of myth, a slippery and ideological concept which has been used and manipulated by different parties to support their own case for special treatment” (Blackman, 1995, 171).

According to many telecommunications industry historians, universal service as a policy issue was initiated by the telephone industry (Brock, 1994; Cooper, 1996; Dordick, 1990; Mueller, 1989; Williams, 1991). The term was first used by AT&T chairman Theodore Vail to advance the idea that a single interconnected system would provide optimum communications

services for the American people (Williams, 1991, 204). Vail coined the phrase in 1907 “One Policy, One System, Universal Service,” which served as AT&T’s slogan and the essence of corporate philosophy for many years (Alan Stone, 1989, 47; Toffler, 1985, 109-111; Tunstall, 1985, 3).

At the turn of the century, robust competition existed between the American Bell Telephone Company of Boston, the predecessor of AT&T, and a number of rival companies, known as the “independents.” Although technically capable of uniting, interconnectivity between competitive companies was resisted for strategic, economic reasons. Customers from one exchange, therefore, could not call another unless they subscribed to more than one service. Milton Mueller makes a convincing case that “the decisive factor in the move to monopoly was its ability to interconnect all telephone users. Considerations of access and interconnection far outweighed the economic factors normally invoked to explain monopoly” (Mueller, 1989, 5).

In addition, Mueller observes that universal service has gone through two distinct iterations. He characterizes the “first generation policy,” which held sway between 1907 and 1920, as concerned with the lack of interconnectivity, or fragmented telephone service. Fragmentation was eliminated with passage of the Willis-Graham Act in 1921, which excused telephone companies from antitrust laws and promoted connectivity through the Bell system’s monopoly. Regulation at this time was “*not* linked to a policy of promoting household telephone penetration or rural-area subsidies.” It instead supported a corporate strategy to eliminate competition (Mueller, 1997, 1-2).

In the mid-1970s universal service became an issue again when AT&T’s monopoly status was threatened by antitrust litigation and by legislation that supported competition in the long distance industry. In 1974, the Justice Department filed a lawsuit against AT&T, Bell Laboratories, and Western Electric. Eight years later, on January 8, 1982, AT&T and the Justice Department agreed to settle the case. The agreement known as the Modification of Final Judgement (MFJ) resulted in the break up of AT&T, the divestment of its 22 Bell operating units, and the establishment of the seven Regional Bell Operating Companies (RBOCs also known as Baby Bells) (see **Table 3.1** on page 35).

In 1975, a “second-generation policy” emerged, one that maintained that universal service meant a “telephone in every home.” For both generations, universal service policy served to preserve AT&T. Following the 1982 court-ordered breakup of AT&T, debate in Congress continued over telecommunications regulation. AT&T fought to keep the RBOCs out of the long distance business, while the RBOCs sought to maintain lucrative universal service subsidies and to free themselves from post-divestiture restrictions. Again in the 1990s, when telecommunications regulatory issues became an item on the national policy agenda, in particular, politicians from rural states worked to influence legislation in favor of low communications rates for rural citizens and subsidized services for schools, libraries, and health care facilities.

Table 3.1

Selected Antitrust Litigation and RBOC Chronology

1974 – The Justice Department, which had been critical of AT&T’s efforts to discourage competition filed a lawsuit against AT&T, Bell Laboratories, and Western Electric.

1982 – The Justice Department and AT&T reached a settlement, the Modification of Final Judgement (MFJ) that separated AT&T’s 22 local telephone divisions from the rest of the company. The seven regional Bell companies were born out of this court action: Ameritech, Bell Atlantic, Bell South, NYNEX, Pacific Telesis, Southwestern Bell, and U.S. West.

1987 – U.S. District Court Judge Harold Greene declined a Justice Department request to lift manufacturing and information bans because of the Bells’ “bottleneck” controls over local telephone service.

June 1991 – The Senate passed S.173 to allow the Bells to manufacture telephone equipment.

July 1991 – On orders from the D.C. Circuit of Appeals, Greene reversed the 1987 decision and allowed the Bells into the information services industry. The Supreme Court on October 30 denied a petition by newspaper publishers’ to block Bells from providing news and information services.

Adapted from *Congressional Quarterly Almanac*, 1992, page 184.

Whether Mueller is correct, and he admits to a “highly controversial” interpretation of universal service history, his analysis demonstrates the way issue redefinition, symbols, and stories were used to gain agenda access. While it appears that the ostensible purpose of industry arguments for both the first and second generation of universal service policies was to mobilize interest groups and government elites in the name of equity, in reality the purpose was to

preserve the status quo. The telecommunications industry, both AT&T and the local companies who by the 1980s received large subsidy payments, had a powerful incentive to use the regulatory process to preserve a system that gave them privileges and imposed restraints on their competitors. Their argument followed a predictable if somewhat circumspect pattern. Described by Noll and Owen as, “the cross subsidy argument,” AT&T argued that equitable service could be maintained only if regulation continued to provide the necessary subsidization arrangements that has allowed local providers to be compensated for otherwise unprofitable service (Noll and Owen, 1983).

Baumgartner and Jones note that the prevailing political debate of the latter half of the 20th century has involved conflicts between economic development and employment opportunity on the one hand, and equity concerns on the other (Baumgartner and Jones, 1993, 105, 220). The universal service case discourse is a variation on this theme. From the mid-1930s to the early 1990s, telecommunications companies insisted that regulation was required in terms of “public interest” to support universal service. During the mid-1990s, however, arguments by leading telecommunications service providers and conservative politicians regarding the benefits of equitable access began to be abandoned, a competitive environment where the promotion of universal service was no longer advantageous. Rather, in a classic efficiency vs. equity argument, industry interest groups and sympathetic politicians proposed elimination or weakening of universal service regulation. What actually took place was a change in the way the “public interest” was defined.

Public Interest: A Changing Definition

Arguments invoking “the public interest” as a compelling reason to support or oppose universal service policy are found in political and interest group rhetoric from 1986 to 1995. As Deborah Stone reminds us: “There is virtually never full agreement on the public interest, yet we need to make it a defining characteristic of the polis because so much of politics is people fighting over what the public interest is and trying to realize their own definitions of it” (Stone, 1997, 21). In her dissertation on the role of private philanthropic organizations in communications policy-making, Katharina Kopp constructs two models of the “public interest.”

Using a content-analysis instrument which she constructed on the basis of a literature review, Kopp found that there are basic differences between the term public interest as defined in the early 1960s and the way it was later used in the 1980s and 1990s. In brief, “the concepts differ as to the preferred means of arriving at the definition of ‘public interest.’ The earlier concept emphasized the determination of the definition through elected representatives and their regulators; the second emphasized the marketplace as the only legitimate means of arriving at the ‘public interest’” (Kopp, 1997, 130).

In addition, Kopp concludes that the two concepts diverge in terms of meaning. “The earlier definition emphasizes the policy values that include equity, fairness, community, and participation. The later definition does not believe in the a priori definition of the ‘public interest’ since the market is regarded as best in determining the ‘public interest.’ Therefore this concept emphasizes the policy values of freedom (from government) and efficiency (the market is determined as most efficient in determining the ‘public interest’” (Kopp, 1997, 130). Finally, following an examination of FCC annual reports throughout the 1970s and the 1980s, Kopp discovered that the change to a marketplace interpretation with regard to FCC decision-making took place as early as 1977 (Kopp, 1997, 307).

Economic Characteristics of the Telecommunications Industry

In order to understand the evolution of telecommunications policy in the United States it is helpful to consider several economic characteristics of the industry that are central to universal service policy debates. The first characteristic, network externality, concerns the value of access to the network, which increases with the number of persons who are connected. As a result, interconnection of one network to another adds to the value of both. Thus, “a dominant theme in telecommunications policy is defining the rights and responsibilities for the interconnection of networks and appropriate payments for interconnection under a wide variety of different conditions” (Brock, 1994, 62).

A second characteristic involves the revenue-sharing arrangements among communications companies prior to 1982. Although the customer pays a single charge, the call usually travels through phone lines owned by more than one company. As revenue-sharing

arrangements are based on complex formulas that do not necessarily relate to real costs, these arrangements “have been a source of many policy disputes in the industry” in particular as they relate to subsidy arrangements and the provision of universal service (Brock, 1994, 62).

The third characteristic is the vertically integrated structure of the telephone industry that was unrestrained by market influence until 1982. As previously mentioned, from the early 1930s until the early 1980s AT&T controlled long distance lines, manufactured equipment through its subsidiary Western Electric, and provided services through its Bell subsidiaries. Telephone service in rural parts of the country was provided by independent companies which operated according to Bell system standards, connected to AT&T for long distance, and made most of their profit from AT&T payments. According to Brock: “Prices were set by a combination of managerial and political decisions that were designed to produce total revenue equal to the cost defined through the regulatory system, but not designed to relate the price of any particular service to the cost of that service” (Brock, 1994, 63). This practice made it difficult if not impossible to determine the true cost of telecommunication services.

Finally, although not a pure public good in the conventional sense, telecommunications services are sometimes referred to as such by policy scholars, government officials, and economists (Artle and Averous, 1973; von Rabenau and Stahl, 1974; Sando, 1987; Cooper, 1994). For instance, Artle and Averous demonstrate that the telephone system, through its provision of access and savings in transaction costs, includes some of the characteristics of a public good. Throughout the literature, references that relate telecommunications services to a “public good” are common enough to assume that whether or not they strictly conform to all aspects of Samuelson’s original concept, it is an intuitively natural way to think about them (Samuelson, 1954). As stated previously, the fact that the services of the telephone industry were considered a public good figured prominently in the universal service policy debate. It served as the basis for argument that Americans without the equity telecommunications services would be disadvantaged in the 21st century.

Americans without Telephones

In other words, at issue in the universal service debate was equal access to the benefits of telecommunications services for all Americans. Although much of the recent debate refers to “information have-nots,” it provides little data on the attributes of these people. In 1995, however, several studies were published in response to universal service policy debate (Horrigan and Rhodes, 1995; Schement and Mueller, 1995; Schement, Pressman, and Povich, 1995; Irving, 1995). Jorge Schement and his colleagues described the characteristics of citizens without telephones (Schement, 1996; Schement and Mueller, 1995; Schement, Pressman, and Povich, 1995). Larry Irving expanded the concept of universal service by incorporating questions about computer/modem ownership and network-based information access in the 1994 Current Population Survey (CPS) a national survey on telephone penetration conducted by the Census Bureau, under the aegis of the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA).

For his study, Schement drew on Federal Communications Commission (FCC) and Census data and, in the case of a Camden, N.J. study, on proprietary data supplied by Bell Atlantic/New Jersey and interviews with Camden residents. He estimated that in 1993 approximately 94% of all American households had telephones, which left about 4.5%, or 4.4 million households (11.6 million individuals), without phone services. The characteristics of households without services were low income, single woman head-of-household, black and Hispanic, and persons living in communities outside a metropolitan statistical area (Schement, 1996). According to the Camden study, users were “driven off the network by usage-related costs (long-distance and collect calls, credit cards, special optional services) rather than access-related costs (the lack of means to pay initial installation fees)” (Schement, 1995, 8).

The Irving survey, took as its point of departure an expanded definition of universal service. Irving included questions on computer/modem ownership, and he cross-tabulated responses with income, race, age, educational attainment, and regional factors. Irving and his co-authors concluded that although the lowest telephone penetration occurs in central urban areas, computers and modems are much less prevalent in rural areas. Analysis of the NTIA data by race revealed that Native Americans in rural areas are least likely to have telephone service, followed

by rural Hispanics and blacks. With regard to location and age, people in rural areas were most disadvantaged. Senior and rural citizens were least likely to have computers and modems. In addition, the NTIA research indicated that less-educated people have lower telephone, computer and modem access. Irving also found that although the young, low-income, and less educated population had less access to the technology than persons in other demographic categories (older, middle-income, educated), when access was available to online information, they were the group most likely to use it for educational and employment-related purposes (Irving, 1995, 1-7).

Although their point of departure is factual data about Americans without telecommunications services, Irving and Schement were concerned with access to communications and information services as a public good. Indeed they found that persons without access to a telephone are disadvantaged in dealing with some of the most basic aspects of modern life: obtaining employment and social services, communicating in instances of emergency, and even maintaining contact with family and friends.

Both opponents and proponents of the 1996 telecommunications policy, including President Clinton and Vice President Gore, made the issue of information-poor citizens central to their agenda-setting strategy (Martin, 1996). As the discussion evolved, it focused on what Stone calls “the discourse of rights,” (legal rights of real citizens as opposed to the normative meaning of rights) (Stone, 1997, 323-324). The questions were to whom, to what extent, and at what cost will telecommunications services be made available in the future. What is in the public interest: low-cost telecommunications services free from government mandated subsidies, or equitable access to information? It was a debate that would redefine universal service policy. An example was the policy discussions relative to the Clinton-Gore National Information Infrastructure (NII) initiative.

The National Information Infrastructure (NII)

Both Kingdon and Baumgartner/Jones acknowledge the capacity of the U.S. President to influence the national agenda. President Clinton and Vice President Gore used the resources of their positions to great advantage to advance their vision of the NII (a high-speed network). Throughout the 1992 presidential campaign, Clinton and Gore employed the metaphor of an

information highway to convey their intention to build a high-speed communications network. Within months of their election, by means of a series of policy documents and legislative proposals, they initiated the National Information Infrastructure (NII). The NII was designed to promote economic development and private-sector investment in telecommunications technology (Clinton and Gore, 1993; Hollifield, 1995).

The NII was an outcome of the High Performance Computer Act (HPCA) that was signed into law in 1991 by President Bush (Dugen, Cheverie, and Souza, 1996). Intended to stimulate research in the area of super-computing, it called for among other purposes, the use of advanced networks for education and commerce. Critics argued, however, that the HPCA served only sophisticated computer users and neglected the needs of most citizens. In fact, the concept of a high-speed education and research network, popularly known as the NREN (National Research and Education Network) in the early 1990s, was appropriated by the Bush administration from a legislative proposal made by Senator Gore (D-TN) in 1988. Subsequently Clinton and Gore included construction of a “computer superhighway” as part their plan to stimulate the economy. An aspect of the program included linking classrooms and the development of digital libraries (Magnusson, 1992, 29).

Only a month after their inauguration on February 22, 1993, Clinton and Gore released the report *Technology for America's Economic Growth: A New Direction to Build Economic Strength*. Although the emphasis was on economic development, the document set forth an agenda for the use of technology, in particular network and information technology, to improve the lives of all Americans. Its publication reflected a strategic move “to expand the issue to the previously apathetic” (Baumgartner and Jones, 1993, 25). Contentious discussions took place among stakeholders as to what roles would be played by the private sector, federal and state governments, and public interest groups in designing the information highway. It was during this time that the White House and Congress framed the discussion with two requirements. One was open access requiring the interconnection of competing networks on a nondiscriminatory basis, and the other was universal service, that is, access for all citizens at affordable prices regardless of income, disability, or location. In addition, schools, libraries, hospitals, and clinics were to be connected to the network by the year 2000. (Griffith and Smith, 1994, 6).

On September 15, 1993, a second document was issued by the Information Infrastructure Task Force, the *National Information Infrastructure (NII): Agenda for Action*, which defined the terms of the NII. At the same time, President Clinton issued Executive Order 12864 which established the NII Advisory Council and stated the objectives of a network initiative including “universal access.” The NII was described by the White House as “a seamless web of communications networks, computers, databases, and consumer electronics that will put vast amounts of information at users’ fingertips. Development of the NII can help unleash an information revolution that will change forever the way people live, work, and interact with each other ...” (Griffith and Smith, 1994, 1). Stakeholders in the NII initiative were a varied group, representing most of the telecommunications industries, including groups building network and computing hardware and software, government agencies, the League of Women Voters, the AFL-CIO, The Electric Freedom Foundation (EFF), and Americans for Indian Opportunity (see **Appendix A – From: “The NII: For the Public Good”**).

At the initial meeting of the NII Advisory group, members agreed that there were two key issues: the domain of the NII and how to define universal service, “a term that members including V.P. Gore prefer to universal access” (Rogers, 1994, 35). In October, 1993, the *New York Times* reported that a coalition of more than 60 nonprofit, consumer, and labor groups announced the formation of an organization, the Telecommunications Policy Roundtable, to expand the discussion relating to communication technology. The Telecommunications Policy Roundtable questioned whether the information highway would be “a freeway or a toll road” (Markoff, 1993, 2). They insisted that the public-interest community play a role as advocates for ubiquitous information services in the policy formation process. Defining the issue as one of equity appeared to mobilize additional public-interest advocates. In March of 1994, 600 members of the public interest community met in Washington, D.C. with Vice President Gore to discuss and express their support for universal service principles (St. Lifer and Rogers, 1994, 14). Metaphors such as the national information infrastructure and the information highway helped people to understand a new phenomenon in terms of an old one.

“Metaphors are important devices for strategic representation in political analysis. On the surface, they simply draw a comparison between one thing and another, but in a more subtle way

they usually imply a whole narrative story, and a prescription for action” (Stone, 1997, 148). The highway metaphor, when coupled with education and “our economic future,” was a compelling policy image. Throughout the mid-1990s Clinton and Gore invited all Americans to ride the information superhighway. They implied that the journey would afford all citizens, regardless of geographic location and financial circumstances, a rich educational trip and the possibility of a prosperous life.

The Clinton administration, by conceptualizing complex and unfamiliar network technology in terms of familiar transportation technology, strategically defined their economic agenda as being in the broad public interest (Hollifield, 1995). In this way, the scope of the conflict was broadened, new political alliances were created between the administration and public interest groups (Telecommunications Policy Roundtable), and mobilization occurred on a larger scale. The NII and information superhighway were terms used by Clinton and Gore to define universal access to the network, and as such these terms could not be disengaged easily from the concept of universal service. Nevertheless, the focus of this study is on the more technical telecommunications policy term “universal service.” It is the accepted phrase used over time to describe the goal of ubiquitous telephony, and it is also the term that was debated in Congress prior to passage of the 1996 legislation. The universal service principles that follow (quoted on page 49) are, in fact, the product of that debate and an interesting example of agenda-setting within the framework of a larger issue, revised telecommunications policy.

Issue Definition, Solutions, and Presidential Support

The evolution of telecommunications legislation, in particular universal service policy, demonstrates many of the principles of agenda-formation that receive fuller treatment in chapters five and six, including the process of problem definition and solution generation described by Kingdon and Baumgartner/Jones. Both theories emphasize the centrality of problem definition to successful agenda-setting. Kingdon frames his discussion of problem definition by highlighting the importance of values, comparisons, and categories to the process. He writes:

- “The values one brings to an observation play a significant role in problem definition” (Kingdon, 1995, 111).

- “Problems often involve comparisons; if one is not achieving what others are achieving, and if one believes in equality, then the relative disadvantage constitutes a problem” (Kingdon, 1995, 111).
- “People will see a problem quite differently if it is put into one category rather than another. Thus much of the struggle over problem definition centers on the categories that will be used and the way they are used” (Kingdon, 1995, 111).

Baumgartner and Jones build their case on a foundation suggested by Deborah Stone: “policymaking is strongly influenced not only by changing definitions of what social conditions are subject to government response ... but also and at the same time by changing definitions of what would be the most effective solution ...” (Stone, 1989, 299). Universal service policy has always offered policy entrepreneurs an opportunity to frame the discussion from a number of perspectives: economic, legal, and public advocacy. In fact, “the publicly espoused ideals [of universal service] usually bear little correspondence to the actual motives of the different players” (Sawhney, 1994, 388).

For example, most industry analysts agree that Theodore Vail’s motivation in portraying universal service as a public good was intended to protect AT&T’s market position. In fact, it appears that Vail used “‘universal’ to mean everywhere rather than everyone” (Dordick, 1990, 230). In sum, AT&T wanted to be the sole service provider but was not necessarily concerned with equitable service for all citizens. For over 60 years, AT&T continued to claim, on the grounds of network frailty, that only a monopoly environment would provide optimum services for consumers. The company held off competition to a degree for decades by employing entry barriers and arguing that profits from telephone equipment subsidized basic telephone service (Noll and Owen, 1983, 59).

Throughout a 30 year time period, from 1950 to 1980, federal policy on telephone terminal equipment changed to support a competitive market. Telephone equipment was no longer considered an essential part of the network, nor was monopoly a requirement for optimum telecommunications services (see **Table 3.2** on page 46). Competitors such as MCI received permission to offer “experimental” long distance services. In addition, a series of court decisions whittled away at AT&T’s claim that an open market would prove harmful to customers. In the mid-1980s AT&T’s long distance business was separated from its local subsidiaries by the MFJ.

AT&T retained most long distance services, while the Bell operating units were reorganized into regional companies that offered monopoly as well as toll services within their territories (Crandall, 1991, chapter 6).

Divestiture and deregulation set off activity in the communications policy area, as groups competed to advance policy solutions that were to their advantage. Debate was reminiscent of the issue-definition strategies and policy images used since the early 1930s by both sides: that is, AT&T, local phone companies, labor unions, and consumer groups. In 1983 the FCC approved a plan of access charges for long distance service for residential customers whether they made long distance calls or not. The fees were intended to cover the costs of local phone services after divestiture. These costs had been covered prior to divestiture by programs directed at special classes of citizens, such as those living in rural locations, persons with disabilities, and rural telephone companies (see **Table 3.3** on page 48). In addition, a complex “redistributive system of generating subsidies and transferring them internally within the same carrier from one category of user to another category” was instituted (Noam, *Beyond Liberalization*, 4). The House of Representatives responded with legislation, H.R. 4102, that prohibited the FCC from requiring residential customers to pay access fees.

AT&T countered with an intense lobbying campaign. A company spokesperson stated “that the company was ‘dismayed’ by the House action and that it seemed ‘to create chaos out of order’” (Burnham, 1983, D1). The *Congressional Quarterly Weekly Report* reported that AT&T budgeted \$1.5 million for a lobbying effort to defeat the legislation (*CQ*, 22 Oct 1983, 2203). Charles Brown, AT&T chairman, took out full-page ads in the nation’s major newspapers to say that he was speaking for three million stockholders, one million employees, and a half-million retirees. AT&T defined the issue as a matter of affordable phone services. The argument was that technological advances made it possible for businesses to bypass AT&T and set up their own long distance networks. If Congress were to block the access charges and force long distance users to continue subsidizing local service, then long distance customers would have an incentive to leave the system, thereby forcing AT&T to raise local rates.

Table 3.2

Trend toward Competition in the Telecommunications Industry, 1956-1980		
Hush-A-Phone:		
Device invented in 1921 that snapped on phone to provide speaking privacy.	Complaint filed by inventor in 1948 due to AT&T attempt to prohibit sales of “foreign attachments.”	FCC favorable decision for AT&T overturned by appeals court in 1956.
Carterfone:		
Device that connected mobile radio-telephone systems to the telephone network, manufactured 1959-1966.	In compliance with “foreign attachment” policy, Bell employees discontinued service of all persons using a Carterfone. Tom Carter filed antitrust suit.	Courts referred matter to FCC, which in 1968 found AT&T restriction on terminal equipment discriminating.
Protective Connective Arrangements (PCAs):		
AT&T required extra monthly fee to protect network against harm from the use of external devices.	Manufacturers of devices complained to FCC.	In 1975 FCC found PCA requirement unjust and unreasonable.
AT&T Dataspeed 40/4:		
AT&T 40/4 was a smart terminal designed to communicate with a computer and perform data functions.	IBM complained that AT&T was extending its communications services into data-processing domain.	In 1980 Computer II decision, FCC concluded that it was no longer in the public interest to regulate common-carrier-provided CPE.
Trend toward Competition in the Telecommunications Industry – Long distance Service, 1956-1980		
Above 890:		
FCC began in 1956 to develop policies to allocate microwave frequencies known as Above 890 in response to the communication needs of large corporations.	AT&T and independents responded that private microwave should be limited to areas where common carrier facilities were unavailable.	Above 890 decision by FCC in 1959 provided AT&T incentive to develop micro-technology.
MCI:		
In 1969 Microwave Communications Inc. (MCI) applied to the FCC for authority to establish a limited microwave common-carrier system between St. Louis and Chicago.	AT&T and Western Union objected that MCI would “cream skim,” or operate only high-density routes where lower fixed costs permit lower rates.	FCC found that in the common carrier industry competition was in the public interest, so the application was granted.
Specialized Common Carrier Decision:		
FCC was deluged with applications after MCI decision.	FCC initiated rule making proceeding culminating in the Specialized Common Carrier Decision.	In 1971 Specialized Common Carrier Decision established a policy that allowed new entries in the private line and specialized common carrier market.
“Open Skies”:		
FCC began proceedings to consider policy toward domestic satellite communications in 1972.	FCC imposed restrictions on AT&T’s entry into domestic market for three years.	With adoption of “Open Skies” policy, four carriers established satellite systems.
“Value-added Networks” (VANS) and Resale Carriers:		
Value-added carriers lease private line circuits from common carriers, attach computers or other devices that perform and resell the service.	In 1973 the FCC approved the first VAN offered by packet Communications, Inc. – Telpak Tariff.	FCC “Resale and Shared Use” decision in 1976 motivated AT&T to cease additional services that eliminated resell incentives.
Execunet Cases:		
In 1974 MCI began to offer its <i>Execunet</i> Service (originating private lines shared among customers) in direct challenge to the FCC.	AT&T complained, and FCC ordered MCI to cease and desist. The Appeals Court ruled that FCC could not restrict type of services that MCI offered over authorized microwave facilities.	After a series of rulings (<i>Execunet I, II, III</i>) the FCC conducted a hearing on whether competition in the long distance market was in the public interest. In 1980 FCC opened telephone service to competition.

(Brock, 1981, 1994; ShooShan, 1984; Vietor, 1989)

For their part, the bill's sponsors defined the issue as a matter of equity and argued that, "the FCC's plan is unfair to local users and puts that burden on those least able to pay, since the bulk of the traffic on the nation's phone lines is long distance calls made by businesses ... This will drive poor and residential users off the system and undermine a policy in existence since 1934 of ensuring 'universal service' access to phone service for all Americans" (*National Journal*, 22 Oct 1983, 2202). At one point in the debate, Representative Gore (D-TN) called the FCC access charge plan "radical and extremist" (Isikoff, 1983, D8). Ironically, both sides used different rationales and policy images as they each insisted that they were protecting universal service. They also both claimed that defeat would mean the end of universal telephony.

On one side the debate about preserving universal service after deregulation was framed by compelling images of poor and rural customers. It defined the issue in terms of normative democratic values such as equality, opportunity, and community. On the other side, the problem was characterized as sustaining economic development and an unencumbered commodity or as necessity to be made available equitably, dictated how the problem was viewed and prescribed its solutions.

The 1996 policy alternative arrived at after years of deliberation, was likewise equivocal. Regarding rate structures, for instance, while the previous system of paying for universal service ensured equity of service in a monopoly environment, it was incompatible with the introduction of competition into the market. Before deregulation, universal service was paid for, as has been described, through pooling arrangements and cost reallocations. In a competitive market, calculating and compensating for the cost of universal service through such arrangements was untenable. How universal services would be paid for continued to be a problematic issue after the legislation passed. And there was a second major matter related to the relative sophistication of current and future telecommunication services as compared to "plain old telephone service" (POTS) of the first half of the 20th century. Following passage of S.652 in 1996, the yet to be addressed question is of what level of telecommunications capacities should comprise universal service.

Table 3.3

Select Telephone Services - Industry Subsidies	
1949	Rural Electrification Administration (REA) Authorized by Congress to make funds available to rural telephone companies to serve towns with populations of less than 1,500 at interest rates of 2%.
1950	17 telephone companies with 29,100 subscribers borrowed at an interest rate of 2%.
1971	Rural Telephone Bank (RTB) Established as a supplementary source of financing for rural telephone systems.
1973	Rural Electrification and Telephone Revolving Fund (RETRF) Changed the interest rates on REA loans from 2% to 5%.
1984	FCC's Lifeline Assistance Plan Waives 50% of the subscriber line charge for subscribers who pass a state-designed means test and who reside in states willing to reduce local telephone rates by an amount at least as great as the federal waiver. Universal Service Fund Subsidizes the cost of telephone services for companies with higher-than-average non-traffic sensitive (NTS) costs. Long distance customers subsidize local users in high-cost areas. Pool of Common Carrier Line Charges The National Exchange Carrier Association (NECA) administers the CCL pool, which like the Universal Service Fund, represents a subsidy to rural users.
1986	Approximately 5 million subscribers, or 4.2% of people, received telephone services provided by REA customers, the rural telephone companies.
1987	FCC Link-Up America Programme Furnishes federal assistance to cover one-half of local exchange service and installation charges, to a maximum of \$30, for eligible low-income households.
1990	Food, Agriculture, Conservation and Trade Act of 1990 Contains provisions for increased REA spending to encourage non-farm rural development by expanding and enhancing telecommunications infrastructure and computer and information services targeted at rural citizens. Telephone Relay Service Title IV of the Americans with Disabilities Act requires the FCC to ensure that Telephone Relay Services (TRS) are available to the greatest extent possible and in the most efficient manner to persons with speech or hearing disabilities in the United States.
1991	REA provided loans to 902 telecommunications providers who offer service to 4.8 million residential subscribers and nearly 1 million business subscribers.

(Fuhr, 1990; Markarewicz, 1991; Calabrese and Jung, 1992; Cronin and Herbert, 1994)

Level of service was a matter of congressional concern from the late 1980s, as it became apparent that telecommunications technology could allow far more than voice telephony. Members of Congress, including Vice President Gore during his years as a legislator, expressed concern about the formation of an “information elite” (Pressler and Schieffer, 1987, 373). As Kingdon described: “agendas are not first set and then alternatives are generated; instead

alternatives must be advocated for a long time before a short run opportunity presents itself on an agenda” (Kingdon, 1995, 206).

The Clinton-Gore technology agenda presented a “short run opportunity” and caused all sides of the telecommunications debate to recast their arguments. Clinton-Gore’s construction of the NII metaphor was a classic example of the strategic use of issue redefinition. In addition, formation of the NII Advisory Council demonstrated the power of the President as described by both Kingdon and Baumgartner/Jones regarding national policy agenda-formation. By establishing the NII Advisory Council through an Executive Order, President Clinton circumvented Congress, mobilized stakeholders throughout the information policy subsystem, and initiated institutional arrangements that have had long lasting consequences (Dugan, Cheverie, and Souza, 1996, 134-135).

Issue Context, Interest Groups, and Media Attention

Technological innovation, new economic conditions, anti-regulatory sentiment (Derthick and Quirk, 1985; Hortowitz, 1989; Mucciaroni, 1995), congressional reform (Quirk, 1995; Rieselbach, 1994), and the election of a different governing coalition—in summary, contextual change over time—combined to promote change in telecommunications policy between 1986 and 1995. These conditions converged and transformed conditions to enable what Baumgartner and Jones call “alterations of existing arrangements” and Kingdon calls a “window of opportunity.” After nearly a decade of debate, Congress crafted a compromise, the Telecommunications and Deregulation Act, that all of the players could support: corporations with vested interests in communication services, citizen advocacy groups, legislators representing both urban and rural populations, government agencies, and educational institutions.

According to the agenda-setting theories of both Kingdon and Baumgartner/Jones, time, interest groups, and media attention influence the process of agenda-formation to varying degrees. In the universal service case, interest groups invested heavily in an attempt to influence the final policy outcome. The stakes were high. First, the bill removed impediments to competition that had existed since 1934, thereby allowing multiple industries (cable television, regional and long distance telephone companies, computer manufacturers, telecommunications–media groups, etc.)

to compete in a single market. Consequently, diverse business groups eager to enter the lucrative telecommunications market committed significant resources to support the legislation.

As an example of how much was at stake, Jonathan Tasini, writing in the *Washington Post* in 1996, suggested that “the 10 top telecommunications players—Disney, Time-Warner, Viacom, Murdoch’s News Corp., Sony, TCI, Seagram (which owns MCA), Westinghouse/CBS, Gannett, and GE (NBC’s corporate parent)—alone control more than \$80 billion in revenues ... In most cases, they possess at least a controlling share of their market, and in their grasp are the technological tools to control where we work, what we do, how we get our information, and how we interact with the people we know. In effect, they are creating a new industry, combining cable, telephone, entertainment, computing, and publishing into a single, vertically integrated business that *Business Week* recently estimated could generate a trillion dollars in revenue by the time they’re through.” Indeed, as Tasini suggests, the legislation warranted interest not only because of the money involved, but also because of its potential impact on individual citizens’ lives relative to such matters as economic opportunity, interconnectedness, participation in governance, and access to information (Tasini, 1996, C1, C4).

When corporate interest groups urged passage of new telecommunications legislation and vigorously opposed universal service regulation, public policy groups entered the discussion. As noted earlier, a coalition of nonprofit, consumer, labor, and civil-rights groups joined forces in 1993 to form the Telecommunications Policy Roundtable. Their goal was to promote broader public discussion and to influence policy in the telecommunications domain. This coalition included the American Library Association, the Consumer Federation of America, the American Civil Liberties Union, Computer Professionals for Social Responsibility, and Ralph Nader’s group, the Public Citizen.

Up to 1993, the issue of telecommunications reform had been defined for the most part by a business community focused on the potential economic opportunities of network-based commerce. Nevertheless, by the mid-1990s, groups like the Telecommunications Policy Roundtable joined by Vice President Gore and leading academics such as Jorge Schement and Susan Hadden, government bureaucrats like Larry Irving, and public-interest organizations together began to advocate an alternative vision of the information highway. The policy image of

universal service presented by these groups was an image of a “social contract for the information age,” and is best described by Jorge Schement and his colleagues:

The evolving structure of universal service should include open access, democratic equality, and competitive neutrality. Then it will provide maximum benefits at the lowest possible cost. Regulators should not impose a choice between expensive and inexpensive bytes. Rather they should provide a market structure, which allows for choice, use, and all creative possibilities. The regulatory platform should include possibilities for schools, health care, libraries, public safety, and economic security (Schement, Pressman, and Povich, 1995, 6).

Presented as a right to communication services, universal service policy was endowed with possibilities and costs far beyond the intentions of Theodore Vail (Schement, Pressman, and Povich, 1995).

To summarize, by 1993 the context had changed. A new administration made telecommunications reform and the National Information Infrastructure (NII) a cornerstone of their agenda. Fresh policy definitions and images were advocated and, as predicted by Baumgartner and Jones’ theory, a Schattschneider mobilization of criticism resulted in the destruction of longstanding regulatory rules if not institutions supported by traditional telecommunications providers. Simultaneously, a Downsian mobilization of enthusiasm, in this case for open access to telecommunications services, led to the creation of new institutional arrangements in the form of a redefined universal service policy and an expanded role for the FCC.

SENATE DEBATE and PUBLIC OPINION in 1995

Telecommunications Reform Act of 1996: To provide for a pro-competitive, de-regulatory national policy framework designed to accelerate, rapidly, private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes. (S.652)

Universal Service Principles: The joint board [Federal State Joint Board] and the Commission [Federal Communication Commission]

(FCC)] shall base policies for the preservation and advancement of universal service on the following principles:

- **Quality services are to be provided at just, equitable, and affordable rates.**
- **Access to advanced telecommunications and information services should be provided to all regions of the nation.**
- **Consumers in rural and high cost areas should have access to telecommunications and information services, including interexchange services, that are reasonable comparable to those services provided in urban areas.**
- **Consumers in rural and high cost areas should have access to telecommunications and information services at rates that are reasonably comparable to those services provided in urban areas.**
- **Consumers in rural and high cost areas should have access to telecommunications and information services for health care, education, economic development, and other public purposes.**
- **There should be a coordinated Federal – State universal service system to preserve and advance universal service using specific and predictable Federal and State mechanisms administered by an independent entity or entities. Elementary and secondary schools and classrooms should have access to advanced communications services. (S.652, Section 103)**

On January 4, 1995, Senator Pressler (R-SD) introduced the Telecommunications Reform Act to the 104th Congress. The Senator, who had advocated an expanded universal service policy as early as 1987, made the introductory remarks: Universal service will, he declared, “improve international competitiveness, spur economic growth, job creation, and productivity gains, deliver better quality of life through more efficient delivery of educational, health care, and other social services, and enhance individual empowerment. All without spending taxpayer money” (url: <http://thomas.loc.gov/> 4 Jan 1995). Pressler’s enthusiasm is understandable. As a senator from a rural state and Chair of the Senate Committee on Commerce, Science, and Transportation, it was his responsibility to secure inexpensive telecommunications services for the rural citizens from South Dakota in addition to shepherding the legislation through Congress. Contained within his remarks, however, are competing values—competition stimulating economic growth juxtaposed with individual rights and equal access—that have remained the prevailing theme of the telecommunications policy debate.

Jonathan Tasini put Pressler's enthusiasm for the legislation in another light, noting that "the Center for Responsive Politics says that of the \$2 million major communications and entertainment companies gave to Congress during the first half of last year [1995], one third went to members on the conference committee dealing with the telecommunications bill. The two biggest beneficiaries were the two chairmen whose committees have the greatest oversight of the bill: Sen. Larry Pressler (R-SD) who got \$103,165, and Rep. Jack Fields (R-TX) who received \$98,500" (Tasini, 1996, 4). Similarly, Mark Lewyn calculates that between mid-1994 and mid-1995, "the communication giants" donated \$475,859 to Pressler's 1996 campaign chest (Lewyn, 1995, 4). Gifts of this magnitude represent in a tangible way the investments made by the industry to the process of telecommunications policy reform during the 1990s.

Pressler's role demonstrates the dichotomy that existed at almost every level of the telecommunications policy process during the mid-1990s. On the one hand, he accepted substantial donations from business interests and promoted the end to regulation that the industry wanted while, on the other hand, he worked to protect his rural constituency by advocating a universal service fund. Although admitting that the solution is paradoxical, Pressler proposed that "it would be especially imprudent to forsake traditional universal service goals, for there remains a real danger of excluding a large segment of our society from the benefits of the Information Age, thereby creating an information elite" (url: <http://thomas.loc.gov/> 4 Jan 1995). This was a concern that Pressler had expressed in 1987 when he wrote, "developing a strategy whereby the twin objectives of preserving universal service and promoting competition can be achieved successfully and simultaneously is the challenge which will face telecommunications policymakers in the next decade" (Pressler and Scieffer, 1987, 374-375).

When asked about his work to protect rural interests in telecommunications reform, Pressler responded, "A lot of people viewed that as regulation; The inner city also has equally big problems ... Some [citizens] in upstate New York; some in Washington, D.C.—Anacostia—[are in] places where companies do not like naturally to go, if we could say it that way ... Everybody wants to be in Chevy Chase and Bethesda ... The point is are we going to have telecommunications apartheid in the country? We have a real problem in that certain groups of people do not get access to any information training" (*National Journal*, 26 Nov 94, 2786).

A battle took place on the Senate floor not only to retain but also to expand universal service policy. Foremost in the fray was a bipartisan group of Pressler's colleagues from rural states (Dorgan, D-ND; Exon, D-NE; Rockefeller, D-WV; Leahy, D-VT; Snowe, R-ME; and Stevens, R-AK) who called themselves the Farm Team. These senators were unwavering in their determination that competition not be permitted to undermine the health of small rural phone companies who could not afford the investment required to bring the information superhighway to rural America.

First to speak during the 1995 senate debate on universal service policy was Senator Dorgan (D-ND). Dorgan offered a blend of statistical data and normative claims relative to "our Nation's 60-plus year commitment to universal service for all Americans," predictions concerning what would happen if universal service is abandoned, and veiled aspersions on the deficiencies of his less enlightened colleagues. Dorgan noted that an emphasis on deregulation must be tempered by protection for citizens. "I am concerned," he said, "that the issues essential to rural America may be overshadowed by the battles between the industry titans, like the regional Bell operating companies, long distance carriers, and national cable networks. We cannot forget to do what is right for all, and not just a few Americans" (url: <http://thomas.loc.gov/> 21 Mar 95). He continued by predicting the effect on rural monthly telephone rates without the universal service subsidy, and calculating that monthly increases could average "an astonishing 72.3 percent."

Dorgan used the phrase "blind allegiance" several times in reference to the devotion of his colleagues to free-market economies with a concomitant lack of vision relative to equitable access. He concluded by warning that "not only billions of dollars hang in the balance between some of the largest corporations in the world but more importantly, the affordability and effectiveness of a central element of American economic and social life is at stake—an advanced telecommunications network" (url: <http://thomas.loc.gov/> 21 Mar 95). The menace of a society divided between information "haves" and "have-nots," and the creation of an information elite were compelling images used repeatedly by members of the rural coalition and citizen interest groups.

Senate floor action on S.652 began on June 7, 1995. On June 8, Senators Packwood (R-OR) and McCain (R-AZ) led an attack on universal service. They argued for the removal of federal and state regulation from the bill. Quoting a study on telecommunications deregulation that had just been released by the ultra-conservative Progress & Freedom Foundation (PFF) promoting abolishment of the FCC and all regulation of telecommunications services, Packwood and McCain denounced S.652. In fact, McCain proposed an amendment that would “prohibit action to impose universal service contributions” on telecommunications service providers. Packwood and McCain were harshly critical of fellow Republicans who supported the legislation, stating that “the Fields and Pressler legislation comes to the Senate floor this week, and far from phasing out the FCC, it gives the agency some 80 new regulatory functions all designed to insure competition and fairness.” By taking this approach, they argued, “Republicans have aligned themselves with the Clintonites French Bureaucrat world view and against real entrepreneurs” (url: <http://thomas.loc.gov/> 8 Jun 95).

Indeed, according to Packwood and McCain, it would be a “tragedy” if universal service were to become law. Should that happen, “the telecom industry, which now represents one-seventh of the economy, wouldn’t create the 2.1 million new jobs that real deregulation would bring by the year 2000. And the American people would be delayed in receiving the benefits of full competition—everything from new cable channels to interactive television to services not yet imagined” (url: <http://thomas.loc.gov/> 8 Jun 95). Harm to the U.S. economy or, at the very least, a failure of the industry or individuals to thrive, was also a threat used often by both sides during the debate.

The opposing side, led by senators from rural states, insisted that regulation was necessary to prevent an uneven distribution of telecommunications services to rural communities during the transition to competition. Senators Snowe (R-ME), Rockefeller (D-WV), Exon (D-NE), and Kerrey (D-NE) introduced an amendment (SREK amendment) to sec. 310 of S.652, requiring telecommunications carriers to provide advanced services at discounted rates to K-12 schools, public libraries, and rural health care facilities. The FCC and the states, as appropriate, would set the rate of the discount. Rural health-care providers would pay fees comparable to their urban counterparts, while libraries and schools would pay a discounted rate. In addition,

levels of service covered by the universal service provision would be set by the FCC and evolve as the capacity of the technology progressed. Supporters of the amendment insisted that the free market could not be trusted to offer increased levels of service to nonprofit organizations that do not participate in the free market.

The senators made strategic use of numbers to define the problem. For instance, Senator Snowe testified that “the National Center for Education Statistics reports—and I think it is interesting to note these statistics because I think it proves the point—that 35 percent of public schools have access to the internet, but only 3 percent of all instructional rooms, classrooms, labs, and media centers in public schools are connected to the internet. Of the 35 percent of the schools with access, 36 percent cited telecommunication rates as a barrier to maximizing the use of their telecommunication capabilities” (Priest, 1995, 14). This tactic served “to structure perceptions of the problem” (Kingdon, 1995, 111) by categorizing it as an equity issue. Deborah Stone describes the power of numbers to tell a story. She asserts that to count something is to highlight its importance and to draw clear boundaries around a phenomenon. Counting involves grouping things and thereby creating a community, which implies common interests. Finally, counting “offers the promise of resolution through arithmetic” (Stone, 1997, 172-175). By measuring, categorizing, debating, and bargaining, the problem becomes susceptible to resolution.

Opponents of the Snowe, Rockefeller, Exon, Kerrey amendment (SREK) introduced counter-arguments for the most part using non-contradictory argumentation. Citing testimony by experts, including economists from the American Enterprise Institute and representatives of the regional Bell companies and the U.S. Telephone Association, opponents asserted that subsidies should not be used to direct network deployment. The telecommunications industry urged Congress to abolish all regulation, arguing that the rules are a barrier to competition, capital formation, and investment.

In an attempt to promote conciliation and move the legislation forward, Senator Pressler presented data on the number of jobs deregulation would create. He cited a Bell-funded study by the WEFA Group, that forecast telecommunications deregulation would result in the creation of 3.4 million jobs over the next 10 years; and a report by the President’s Council of Economic

Advisors, which estimated that deregulation would create 1.4 million jobs by 2003 in the services sector alone. Pressler also noted the testimony of telecommunications expert George Gilder, who predicted that if telecommunications deregulation did not take place, America would lose \$2 trillion in new economic activity during the 1990s (url: <http://www.discovery.org/w3/discovery.org/Gilder/ggtstmny.html>).

Senator Kerrey (D-NE) pointed out the exaggeration that characterized many of the arguments: “I believe many of the statements that have been made thus far overestimate the impact on the economy and underestimate the disruption that will occur to many households throughout this country.” Summarizing testimony by Senator Dole (R-KS) and by House Representatives Bliley (R-VA) and Fields (R-TX), Kerrey noted that “they are talking about American corporations. They are talking about American industry, and advising that they want to do things they are currently unable to do because the regulations say they are prohibited from doing it. That is what this bill is about, businesses that want to do something they are currently not allowed to do” (url: <http://thomas.loc.gov/> 8 Jun 95).

Similarly Kerrey attacked the testimony of industry expert witnesses, such as the Discovery Institute’s George Gilder and Lee Selwyn speaking for Economics and Technology, Inc., Kerrey said: “I frankly do not know who all these individuals are. I do not know whether they are consultants for one company or another. I suspect that they all have a fairly defined sense of view or are encouraged by the companies as a result of previously reached conclusions.” He concluded his remarks by insisting that the Senate must consider the rights of the average American consumer rather than simply the desires of American corporations (url: <http://thomas.loc.gov/> 8 Jun 95). Once again, the telecommunications debate in 1995 involved “non-contradictory argumentation” (Baumgartner and Jones, 1995, 182-183). Neither side spent much time trying to disprove the claims of the other. Rather, each advocacy coalition focused on raising the salience of their most compelling points concerning the issue of costs vs. “rights” to receive service or the criteria of efficiency vs. equity as defensible policy outcomes.

The final few months of discussion on the Telecommunications Reform Act involved more political posturing than substantive discussion. When Vice President Gore announced in December 1995 that agreement on the bill had been reached, the Republicans accused him of

trying to take credit. Under the leadership of Senator Dole (R-KS), they stalled the bill until the first of the year. At that point, according to Mike Mills of the *Washington Post*, “Pressler and Bliley succeeded in persuading Dole that the consensus of the local and long distance telephone lobbies, as well as cable and broadcast industries was such a rare achievement that partisan politics should be set aside” (Mills, 1996, H8).

A role in the debate also was played by what Kingdon refers to as the “national mood ... the notion that a rather large number of people out in the country are thinking along certain common lines, that this national mood changes from one time to another in discernible ways, and that these changes in mood or climate have important impacts on policy agendas and policy outcomes” (Kingdon, 1995, 146). In fact, Mills suggests that Dole’s mind was changed because the Senate realized that the Republicans needed a victory after their losses on the budget and the poor reviews Dole had received following his response to President Clinton’s State of the Union address (Mills, 1996, H8).

In the end, universal service remained in S.652. Specifically, an agreement reached on February 1, 1996 retained the provision that all telecommunications carriers would contribute to a universal service fund. Furthermore, a federal-state board appointed by the FCC was created to define universal service according to the principles set forth in S.652. Special provisions in the legislation (a slightly modified version of the SREK amendment) addressed the needs of public libraries, K-12 schools, rural health-care providers, the urban poor, and rural citizens relative to network access.

Telecommunications Policy over Time

Politics, time, and the opportunities afforded by many policy venues, were all important factors in determining the fate of universal service on the national agenda. From the 1950s through 1995, an iterative process involving political negotiation and actions by the courts—perhaps the most significant arising from the AT&T divestiture decision (MFJ) of 1982—made it difficult for Congress to control the telecommunications industry. In addition, state regulation encouraged competition, and technology converged to shape new law. As Eli Noam has argued, “the broad forces of change are already at work, and in effect, what

Washington does here is largely a ratification job. These things will continue to change, and if Congress doesn't give the parties what they want they will just go forum shopping. They will go to the states, they will go to the courts – there are plenty of places to go” (*National Journal*, 16 Jul 94, 1675). In other words, with or without federal legislation, telecommunication policy evolved. The question became how much compromise of their core values, equality of opportunity versus efficiency, those engaged in making decisions could tolerate.

The values of telecommunications service providers were clearly dictated by financial considerations. The industry spent vast sums of money to support their case. Jerry Landay observed in *The Christian Science Monitor* that from 1993 through 1995, communications providers spent “some \$13 million” in order to influence the content of telecommunications legislation (Landay, 95, 20). The various components of the telecommunications industry were interested in orchestrating an outcome that allowed their organizations to thrive in a deregulated environment (Noll, 1983, 32). The testimony of experts included data that projected tremendous growth for the American economy as the result of telecommunications deregulation. The industry was supported, in turn, by legislators who believed that a competitive environment best serves the American people. For instance, Representative Bliley (R-VA) who has an AT&T plant in his Richmond district, was quoted as saying that throughout the debate he kept his mind on a single fact, “the need to bring competition to the Bell monopolies” (Mills, 1996, H8).

Those senators who made up the Farm Team argued ardently for the right of their constituents to be full participants in the 21st century. Framing their arguments from the perspective that access to information is a desirable social good, they engaged in passionate rhetoric in favor of equity. At one point Senator Rockefeller (D-WV) said that if he managed to defeat the McCain amendment, he believed that he would have accomplished more for his state than anything he had done thus far in his public career.

Of a more complex nature, in that their arguments were more sophisticated, was the role played by public policy groups such as the EFF, the PFF, and the Benton Foundation. They supported universal service or denounced it, depending on their ideological persuasion. In each case, they were influenced by the ideological persuasions of their sponsors, Mitch Kapor of the Electronic Freedom Foundation, or Adrianna Huffington and the Progress & Freedom

Foundation. These groups published prolifically on the topic during 1995. So did public-interest advocacy and professional organizations such as the American Library Association and the Consumer Federation of America. All these groups carried on the discussion, formulating the questions and defining the terms of the debate for which the public was ill-equipped because of the complex legal, technical, and economic issues involved. Frequently quoted by politicians, the opinions of these groups were heard in public most often as reinforcement for strongly held views.

From 1986 to 1995, the telecommunications debate moved in incremental steps toward the idea that the regional telephone companies must give up their monopoly status for the privilege of entering new markets such as cable and long distance. In 1994 Senators Dole (R-KS), McCain (R-AZ), and Packwood (R-OR) successfully opposed a bill similar to S.652 that they said was too regulatory. While the essence of the 1995/96 legislation resembled that of 1994, the political climate had changed. The Democrats no longer controlled Congress. Senator Pressler (R-SD) took a bipartisan and conciliatory approach to crafting the final provisions of the legislation. And although Senate Bill 652 placed more reliance on the market through deregulation to protect consumers, the Democrats used the threat of a filibuster to force compromise on their agenda, which included regulation in support of the right of all Americans to basic telecommunications services. In summary, the story of disenfranchised Americans, “information have-nots,” and the Clinton “information superhighway” metaphor that promised the transformation of education, rural health care services and participatory democracy appeared to be more powerful than the market-driven arguments of telecommunications industry spokespersons and conservative politicians.

Conclusion

This chapter has traced the universal service agenda-setting process from 1986 to its conclusion, successful enactment of the Telecommunications Reform Act of 1996, by noting the complexities of the process and the strategies used by interest groups and politicians. A fluctuating definition of what constitutes the “public interest” was used to argue for or against an expanded universal service policy. I have also described the impact of many factors: presidential

influence, variations in issue definition, the significance of policy images, the role of interest groups in policy subsystems, an evolving issue context, and the changes that resulted from actions in multiple venues and time on telecommunications policy. I have described the debate in the senate, in particular the story told by a bipartisan group of senators from rural states of the potential economic deprivation of a segment of the American population. The metaphor invoked an image of rural citizens and school children who, without access to communications services, would not thrive in the 21st century. More complete explanations and summary findings will be presented in chapters five and six.

Noteworthy is the fact that civic virtue prevailed despite the complexity of the issues under consideration and despite the lack of sophisticated technical understanding on the part of many persons involved in the discussion. A report published in 1990 by the Office of Technology Assessment presented three alternatives for communications policy: communications as a market commodity, communications as a catalyst for economic development, and communications as basic societal infrastructure (U.S. Congress, OTA, 1990, 21). Each image suggests a different solution. With inclusion of the universal service principles in S.652, the liberal value, or equality of opportunity for all and concern for the common good, balanced conservative market-driven values. In effect rather than the selection of one of the OTA options, options two and three were selected.

Two competing advocacy policy coalitions in the telecommunications domain (citizen advocacy groups, the Clinton administration, telecommunications policy analysts, and a group of senators from rural states) converged from 1993 through 1995 to make a persuasive argument for the emergence of universal service on the public policy agenda and, as a result, in Senate Bill 652. What is required, however, is empirical evidence to support this conclusion. The investigation and analysis that follow examine in more detail a decade-long universal service discussion.

Chapter 4

METHODOLOGY

The first section of this chapter contains a review of the research methodology that guides the investigation, including a description of the type of inquiry chosen and the research questions. The second section includes detailed information describing the agenda-setting theory and methods of John Kingdon and Frank Baumgartner/Bryan Jones; data sources; the universal service case research objectives; and a discussion of variables, coding, and analysis. The chapter concludes with an explanation of strategies used to test the integrity of the research design and with comments on the importance of historical precedents and interdependencies among all factors contributing to change in the federal policy agenda.

Type of Inquiry

The methodology used here combined a theory-based, qualitative case-study approach supplemented by quantitative analysis. A system bound by place and time (the telecommunications policy process in the U.S. from 1986 to 1995) was explored through the collection and analysis of quantitative and qualitative data from multiple sources (Yin, 1994; Creswell, 1998). The national policy agenda is set as a result of changes in conditions both internal and external to the process itself. The goal of the research was first to analyze variations in patterns of interaction between selected conditions that test assumptions of previous agenda-setting theory, and second to suggest a new integrative model for the agenda-setting process.

The “decision agenda” is defined by Kingdon as the “list of subjects within the governmental agenda that are up for an active decision” (Kingdon, 1995, 4). The feature that made universal service policy of interest and well-suited for the purposes of this dissertation was its relevance to all citizens despite apparently limited citizen awareness and understanding of the issue. In a democratic society predicated on citizen participation in government, the intention was to discover how the general public perceived and was involved in setting the agenda for complex national policy that has the potential for significant consequences on individual lives.

The research question was: What elements direct the national policy agenda-setting process? The idea was to study a policy issue that had been successful in achieving high agenda status in order to illustrate how it had become the focus of policy makers attention and ultimately the object of successful legislative action.

The research methodology relied on a variety of data sources and the replication of methods described in **Table 4.1** (see page 66) and **Table 4.2** (see page 68) used by John Kingdon and Frank Baumgartner/Bryan Jones. The data collection plan was determined by eight research objectives outlined in chapter one and described more completely later in this chapter, that reflect both similarities and differences between Kingdon and Baumgartner/Jones' theories (see **Table 2.1** on page 23). Analysis was conducted to assess the usefulness of each objective when applied to the process by which universal service policy achieved a place on the federal government's policy agenda. Conclusions were drawn not only about the agenda-setting process but also about the efficacy of the Kingdon and Baumgartner/Jones' theories as explanations of the agenda-setting dynamics.

The use of multiple data sources to provide corroborating evidence through triangulation (see **Figure 4.1** on page 64), was selected as the best approach to account for the broad range of factors involved in agenda-setting, and for the lack of clear borders between the issue and its context (Creswell, 1998, 202; Yin, 1994, 92-94). The most important aspect of using a variety of data was the development of "converging lines of inquiry." A process of triangulation was employed in which results were authenticated by multiple indicators. A conceptual model of the research design is presented in **Figure 4.1** (on page 64) which demonstrates relationships among the forms of evidence. In essence this figure provided the framework for the research objectives in which data was examined in relationship to the final outcomes and also in relationship to other data.

In addition to data triangulation, different theoretical perspectives were applied to the universal service data. Inferences were supported by "[a]nalytic generalization' in which a previously developed theory is used as a template with which to compare the empirical results of a case study" (Yin, 1994, 31) served to support inferences regarding the universal case study.

Figure 4.1

Convergence of Multiple Data Sources

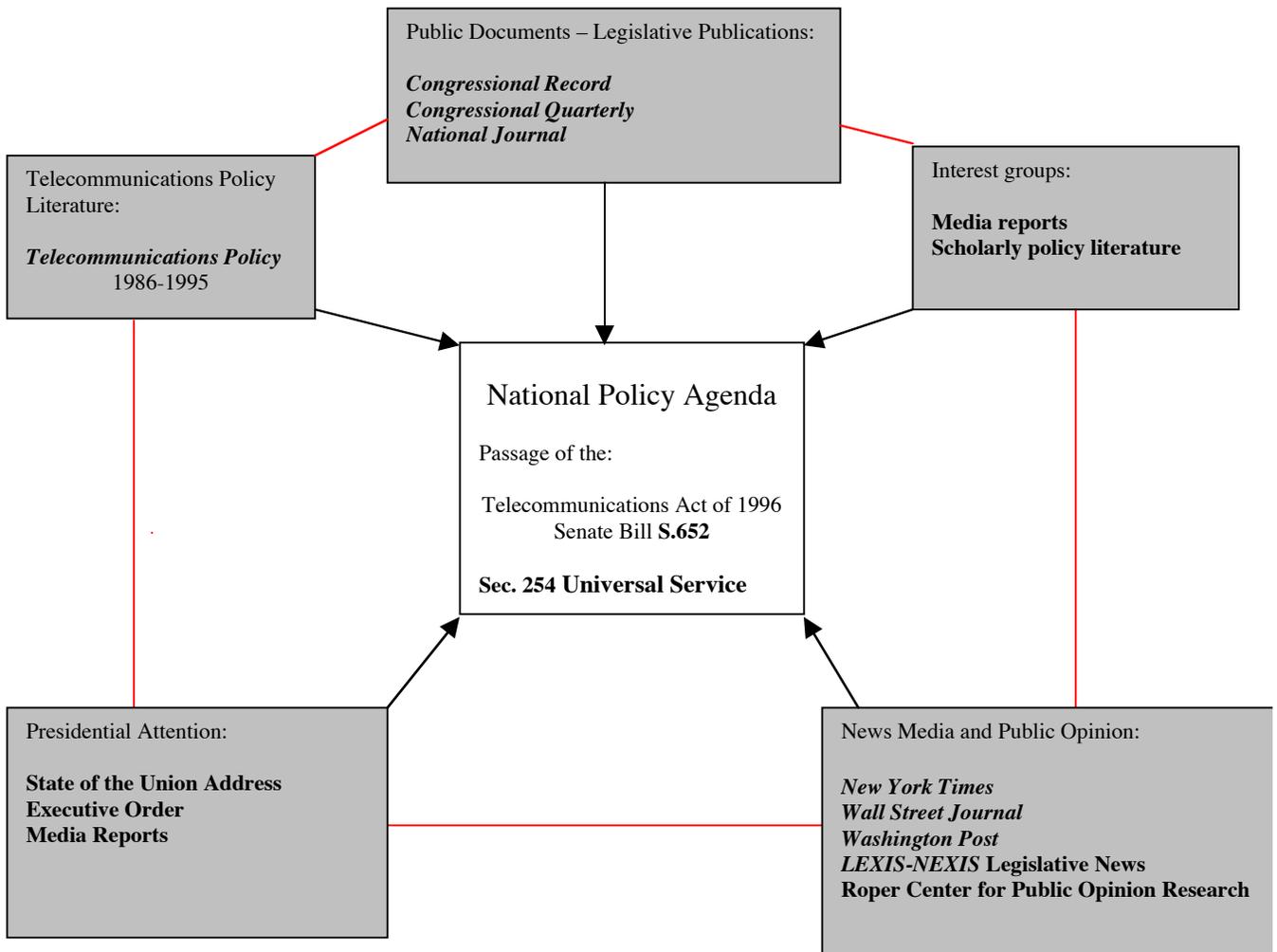


Figure 4.1: Convergence of Multiple Sources of Evidence
Adapted from: Yin, 1994, 93 [COSMOS Corporation].

In other words, established agenda-setting theory functioned not only as the basis for the research design but also as a structure for testing outcomes.

Kingdon's Research Methodology

In describing his research, Kingdon outlined a variety of methods (see **Table 4.1** on page 66), although he stressed that his major sources were interviews and case studies collected through interviews of policy elites or persons closely associated with them, from 1976 through 1979. The interviews studied “breadth, change, and contrast” in two policy areas (health and transportation) where items were moving on and off the agenda (Kingdon, 1995, 232-237). Subsequently, the interviews were coded to track agenda status over time and to provide a framework for exploring explanations regarding the placement of items on the public policy agenda (Kingdon, 1995, 237-240).

The coding involved two types of measurements. The first was the importance placed by respondents on “several hypothesized influences on agenda setting” (Kingdon, 1995, 239). To code the importance of a given influence on the national policy agenda (i.e., presidential attention, Congress, interest groups, etc.), Kingdon noted how often the influence was mentioned during an interview (Kingdon, 1995, 238). Second, Kingdon's primary measure of agenda status concerned the tone and frequency of discussion topics. If respondents talked “in a serious way” about a subject, Kingdon concluded that it ranked higher on the agenda than one receiving little or less mention during the interviews (Kingdon, 1995, 239). In addition to the interviews, Kingdon compiled case studies through the analysis of government documents, trade publications, reports, scholarly articles, and other publicly available written sources; however, he described his non-interview measures of agenda status as “not useful.”

Kingdon begins an “Appendix on Methods” as follows:

This research employed several methods, including interviews with federal government officials and those close to them; case studies of policy initiation and non-initiation; examination of publicly available records of the agenda such as congressional committee hearings and reports, presidential addresses, party platforms, and reporting of issues in the press; and public opinion surveys (Kingdon, 1995, 243).

Table 4.1**Kingdon's Research Methodology Summary**

Studied more than one policy domain to ensure that generalizations about policy processes would not be due to the idiosyncrasies of one case or policy area, and to open up new areas for theory building by observing contrasts. Health and transportation provided advantages for research – breadth, change, and contrast.

Interviews:

Conducted 247 interviews with people – influential people in close contact with key decision-makers – in Washington during the summers of 1976, 1977, 1978, and 1979. This was a panel study, so Kingdon tried to follow the same respondents for 4 years.

- 34% of the interviews with respondents in the executive branch.
- 21% of the interviews with congressional staff.
- 45% of the interviews with people outside of government; lobbyists, journalists, academics.

The interviews were designed to track the content of the agenda in the areas of health and transportation; to consider alternatives proposed over time; and to explore explanations for the placement of items on the agenda, including the prominence or lack of prominence of possible alternatives.

3 uses of the interviews:

- Coded to describe the agenda at a given point in time, and then used to trace the rise and fall of items on the agenda.
- Described the state of the agenda and also aided investigation of why some subjects rise to greater prominence than others and why changes take place.
- Analyzed in relationship to some rather general theories of the policy-formation process.

Coding:

Coded in order to make quantitative statements (from very important to not important).

Rated the importance of a given influence on the agenda.

Interviews coded by two different interviewers working independently of each other.

Case Studies:

Analysis of government documents, contemporary reports, trade publications, scholarly articles, and other publicly available written sources. 23 cases used mostly for non-quantitative purposes to obtain a better understanding of the processes involved and to develop some theories of agenda-setting by aggregating models based on individual cases and to illustrate generalizations. Coding similar to that of the interviews.

Non-interview Measures of Agenda Status:

- Subjects of congressional hearings and committee reports – **not a great deal of help.**
- Presidential messages, including the State of the Union address – **some useful material.**
- Public opinion data from the University of Michigan and Gallup – **not important.**
- Party Platforms – **very vague; not useful.**
- Entries in the *New York Times Index* – **would be massive coding project (apparently not attempted).**

Kingdon concluded the “Appendix,” however, by reporting that public-opinion polls had very little useful information, party platforms were not helpful, congressional hearings and reports were not very important in measuring agenda status, and “the *Times* index [the *New York Times Annual Index*] is an amazing jumble of the trivial and the important that would take a massive coding job to disentangle properly” (Kingdon, 1995, 243).

In brief, a close reading of Kingdon's methods revealed that in the final analysis, his data was derived primarily from meticulously coded interviews (two coders working independently with a standard method for resolving differences). Case-studies were a secondary source of contextual information which Kingdon compiled from media reports, congressional documents, and state of the union speeches. Since a central aspect of the research question concerns policy development from a broad perspective and citizen influence on policy-making, the decision was made not to follow Kingdon's method of data collection through interviews with government officials. The objective was to study agenda-setting from a perspective external to the federal government. Therefore, perceptions of political and policy elites were inferred from media reports, narrative accounts, policy statements, State of the Union addresses, and public records.

Baumgartner and Jones' Research Methodology

Baumgartner and Jones' methods were more eclectic than Kingdon's (see **Table 4.2** on page 68). Their primary data came from the content analysis and coding of over 22,000 articles in the *New York Times* and *Readers Guide* covering a 90-year period, which traced the number and tone (positive/negative/neutral) of articles in eight policy areas (pesticides, smoking and tobacco, alcohol, drugs, urban affairs, nuclear power, automobile transportation safety, and child abuse). They established a list of keywords, which changed over the years as language evolved to describe issues in the eight policy domains. Initially, they also had a second coder reviewing articles, but this practice was discontinued due to high reliability scores (Baumgartner and Jones, 1993, 253-268).

Baumgartner and Jones used the same coding techniques to collect data on congressional activity, such as hearings through the *Congressional Information Service (CIS)* using the CD-ROM format, which contained abstracts of each hearing. The coding results were used to construct data that tracked the emergence and recession of issues from the government agenda while noting whether the hearing was positive, negative, or neutral toward the industry in question.

In addition, Baumgartner and Jones used other indicators, including evidence compiled from the *Encyclopedia of Associations* over 30 years (1961 to 1991), with an emphasis on the

Table 4.2

Baumgartner and Jones' Research Methodology

Identify keywords in the following policy areas—pesticides, smoking and tobacco, alcohol, drugs, urban affairs, nuclear power, automobile transportation safety, and child abuse—and use the *Readers' Guide* and the *New York Times Index* to track issue density in a given year from 1900-1986.

Coding:

Coders typed the title of each article and a numeric code (positive, negative, neutral, or uncodable) indicating its content. Numbers of articles each year and the tone of their content were key variables. Over 22,000 articles were coded.

A second coder checked for reliability (agreement between coders) but this process was discontinued after reliability was found to be close to 100%.

Baumgartner and Jones found that in general media indicators, both the *Readers' Guide* and the *New York Times Index*, showed similar trends (253-257).

Congressional Hearings Data:

Used Congressional Information Service in CD-ROM format to collect data for congressional hearings—reports of congressional activity. Constructed a dataset that included the year of the hearing, the name of the committee or subcommittee, and a summary of topics discussed. Used same coding methods as for media. Reported annual totals in order to track the emergence and recession of issues from the government's agenda (259-263).

Encyclopedia of Associations Analysis:

The *Encyclopedia of Associations* includes very complete description of interest groups dating back to 1961. Coders chose every group that was concerned with the eight policy topics, excluding industrial organizations for example “environmental research organizations owned or affiliated with lumber companies, chemical companies ...” (267).

Investment-Consumption Ratio:

An analysis of investment versus consumption expenditures at the federal and state levels to support a discussion of the influence of federalism as a system of various policy venues on agenda change. (216-234)

growth of interest groups in the area of environmental policy. They tracked groups listed in the *Encyclopedia* by broad category in order to develop a perspective on “changing patterns of mobilization of interest groups in America.” Finally, they constructed an investment-consumption ratio at the federal and state levels in order to analyze policy expenditures in

relation to economic growth. The goal of developing this ratio was “to explore the issue of venue receptivity in the American federal system” (Baumgartner and Jones, 1993, 233).

As the review above illustrates, although Baumgartner and Jones did not specifically address case study as a research strategy, clearly they engaged in the study of “multiple cases over time through detailed, in-depth data collection involving multiple sources of information rich in context” (Creswell, 1998, 61). Baumgartner and Jones’ media coverage and congressional hearings content analysis and coding methods were replicated in an examination of universal service with one exception. Hearings were not coded for tone because the online LEXIS-NEXIS version of *CIS* did not include sufficient information to assure accuracy with regard to legislators’ attitudes toward various segments of the telecommunications industry.

An attempt to replicate Baumgartner and Jones’ data collection by interest group category was less useful. Data coded and analyzed from *Associations Unlimited* the online version of the *Encyclopedia of Associations* using the key words **communications** and **telecommunications**, showed that a decade was too short a time period for substantive change to take place in interest group numbers. Also, from 1986 to 1995 most groups failed to report staff and membership size, so there was no basis for estimating growth in resources.

A decision was made not to reproduce Baumgartner and Jones’ analysis of investment versus consumption expenditures at the federal and state levels, which involved collecting federal expenditure data from appendices of the *Budget of the U.S. Government* (Office of Management and Government, 1991).

The ratio demonstrated, among other things, that different levels of government (federal and state) follow different investment strategies and public policies. The federal government concentrates on consumption policies, while the states emphasize investment policies (Baumgartner and Jones, 1993, 216-234). Since a study of linkages between federal and state telecommunications policy did not relate directly to the dissertation’s research objectives, this investment-consumption ratio was not constructed.

Data Sources

The sources of data used for this study are described below. Documents related to universal service, telecommunications policy, and the telecommunications industry were examined. Although the emphasis was on the decade that preceded passage of the Telecommunications Act of 1996, most recent universal service policy was the consequence of many factors over time, so prior material was considered where appropriate. The primary data sources were articles from national newspapers, government publications that documented hearings and proposed legislation, professional legislative and policy literature, and measures of agenda status, such as support expressed in presidential addresses. Policy statements, internet-based policy discussion, government reports, historical accounts and scholarly analysis of the telecommunications industry and regulatory policy provided context.

Data collection was accomplished for the most part using web-based research databases such as *Dow Jones*; *THOMAS: Legislative Information on the Internet*; *LEXIS-NEXIS Congressional Universe (CIS)*; *LEXIS-NEXIS Academic Universe*; *LEXIS-NEXIS Polls & Survey*, and manual sources, such as the *CIS/Annual*, *CQ Almanac*, and the *National Journal*. The electronic sources of government information and media articles providing documentation for this study are described below.

Dow Jones:

Dow Jones Publications Library is a proprietary database that contains the full text of more than 6,000 sources. One title indexed by *Dow Jones* and used in the study is the *Congressional Quarterly (CQ)*, which contains a record of executive and legislative activities. Published weekly, the *CQ* provides detailed reports on all major national legislative action, including the president's legislative proposals, statements, and major speeches. *Dow Jones* was also used to retrieve articles on universal service from the *New York Times* and the *Wall Street Journal*.

LEXIS-NEXIS Academic Universe:

LEXIS-NEXIS, a subsidiary of Reed Elsevier Inc., is a commercial provider of online information. The entire service contains 1.4 billion documents in more than 8,692 databases. *Academic Universe (AU)* is a general reference product that focuses on news sources. During the time of data collection (1996-July, 1999), (the format has changed since then in Sep 1999) *AU* had 18 different search forms grouped by major topics such as *Top News* and *Legal News*. Searching was conducted under the topic *Government & Political News* and then under the sub-division *Legislative News* (see **Appendix B** for a list of source material and coverage).

LEXIS-NEXIS AU was used to locate articles in the *Washington Post* and in the professional policy literature. It also was the source for a dataset that documented media coverage of related telecommunications topics such as the telephone industry, the information infrastructure, and telecommunications regulation.

Due to limitations of *LEXIS-NEXIS* search capabilities, searching in *LEXIS-NEXIS AU* was done on headlines and lead paragraphs rather than on the full text.

LEXIS-NEXIS CIS Congressional Information Service:

CIS Congressional Universe (CIS) is a legislative reference product containing information about and by the United States Congress. *CIS* duplicates much of the information found in THOMAS (described below) but is indexed in a way that allows more precise searching. It includes bill tracking reports and legislative histories, and it also provides multiple access points to the texts of congressional testimony, such as witness, subject, and committee. This database was used to locate hearings and proposed legislation related to selected telecommunications issues from the 99th Congress second session through the 104th Congress first session.

LEXIS-NEXIS Polls & Surveys:

The *LEXIS-NEXIS* Polls & Surveys data is from the Roper Center for Public Opinion Research, a nonprofit education and research organization in the field of public opinion and public policy. Founded in 1947 the Roper Center maintains an archive of survey data with a focus on social and political information from national samples. Opinion polling sources include but are not limited to the following: Gallup, Harris, Roper; ABC, CBS, CNN, and NBC; the *Los Angeles Times*, the *New York Times*, and the *Wall Street Journal*.

THOMAS:

The 104th Congress directed the Library of Congress to make federal legislative information freely available to the public. In response, the THOMAS World Wide Web system was brought online in January 1995. At this time, THOMAS contains bill summary and status information from the 93rd through the 106th Congress (1973-1999). THOMAS was used to locate legislation on selected telecommunications policy issues from the 99th through the 104th Congress. A full text version of the daily edition of the *Congressional Record* is available through THOMAS.

http://thomas.loc.gov/home/abt_thom.html

State of the Union Addresses, 1986-1995:

Major speeches and policy actions of United States Presidents in the decade under study (Reagan, Bush, and Clinton) are available from a variety of electronic and print sources such as *Vital Speeches* and the *Congressional Almanac*.

President Reagan's State of the Union speeches were available at the following url:

<http://www.reagan.utexas.edu/speeches.htm>

President Bush's State of the Union speeches were found at the Bush Library web site:
<http://www.csdl.tamu.edu/bushlib/papers/>

President Clinton's State of the Union speeches were posted on the White House web site:
http://www.whitehouse.gov/WH/EOP/OP/html/OP_Speeches.html

Network-Based Policy Discussion

Throughout the mid-1990s, much discussion about universal service policy was conducted on the World Wide Web (WWW). Foundations, public interest, and consumer advocacy groups used the internet to present their arguments for and against a revised or expanded universal service policy. Advocacy groups included the Benton Foundation, Electronic Freedom Foundation (EFF), Alliance for Public Technology, Consumer's Federation of America (CFA), and Progress & Freedom Foundation (PFF). The author followed electronic debate on a regular basis throughout 1995 and 1996; and it provided an additional source of information.

Government Documents and Congressional Publications

Using the descriptor **universal service**, I identified relevant information in government documents and congressional publications from January 1986 to January 1996. Because the recent debate about universal service was inextricably intertwined with matters related to the **Federal Communications Commission, telecommunications deregulation, and telephone industry**, as well as to the development of the **National Information Infrastructure (NII)**, additional datasets were developed. The data was used to assess patterns of political elite attention to all three issues.

Excerpts from Senator Hollings' (D-SC) statement introducing the Communications Act of 1994, S.1822, illustrates how universal service, telecommunications deregulation, and the establishment of a high-speed network were often linked in terms of political discourse and were used to promote competing, if not contradictory, values:

This complex bill, S.1822, has two simple messages. To the public, we say, "your interest in universal service will be protected." We won't permit the information highway to cut a detour around rural, inner-city, and low-income America. To industry, we say, "It is time to become more

competitive.” Measured competition can spur innovation and create jobs and economic growth for the entire country.

Promoting private investment. The private sector—not government—is building America’s information superhighway. We will encourage this investment by opening local telephone service to the entry of new competitors, including cable companies. In turn, the Regional Bell Operating Companies (RBOCs) will be allowed to enter the long distance and cable TV markets if they meet certain conditions.

The bill promotes network investment in the nation’s telecommunications infrastructure not with heavy-handed government mandates or free market deregulation, but by providing incentives that make it profitable for the private sector to bring technologies to those who have been left out of the Information Age so far (Hollings, 1994).

In fact, universal service as conceived in the mid-1990s by industry and political leaders could exist only as a result of a robust computer and telecommunications infrastructure and the elimination of longstanding regulatory law. Therefore any study of an expanded universal service policy as proposed for the 21st century, must deal with all three aspects of the issue, as they are inextricably intertwined.

National Media

There are a number of perspectives in agenda-formation theory regarding the influence of mass media on policy change. With regard to political scientists, at one end of the spectrum Kingdon states that media merely report on governmental activities rather than having an effect on the agenda (Kingdon, 1995, 59). In a middle position, Baumgartner and Jones find that the media have an integral role and in fact direct attention toward aspects of issues, thereby affecting policy change (Baumgartner and Jones, 1993, 103). Cook, on the other hand, sees “the reporter as a key participant in decision making and policy making and ...[describes] the news media as a central force in government” (Cook, 1998, 3). In addition, political communication scholars concentrate exclusively on the relationships between the mass media and the public agenda (McCombs and Shaw, 1993, 58-67; Rogers, Dearing, and Bregman, 1993, 68-84).

Although media influence was only one of a number of agenda-setting factors considered in this study, the media clearly played a role in mobilizing support for a revised universal service policy. The publications chosen for coding are major national newspapers: the *New York Times*, *Wall Street Journal*, and *Washington Post*. They have both common and complementary attributes. For the decade under study, all three were among the top five circulating newspapers in the U.S. with daily circulation in 1996 as follows: the *New York Times*, 1,071,720; the *Wall Street Journal*, 1,783,532; the *Washington Post*, 789,198 (*Information Please Almanac*, 1985-1997). According to several surveys these three are the newspapers most widely read by public officials, politicians, journalists, scholars, and business leaders (*Advertising Age*, 24 Sep 1990, 20; Matusow, 1995, 80-83) who are influential and involved in the agenda-setting process (Kingdon, 1995; Baumgartner and Jones, 1993).

Another reason for choosing these particular titles was their diverse perspectives. For instance, the *New York Times* is perceived by the author as having a liberal bias, while the *Wall Street Journal*, with its focus on economic matters, is reputed to be more conservative. Because recent universal service policy debate was frequently framed as an equity versus efficiency contest, the objective was to ensure that the data represented both sides of the argument (Russell, 1998, 14-16). The *Washington Post* was chosen as the third title because the attitudes of federal politicians and policy entrepreneurs are central to the study, and a 1995 survey reported that *The Post* was read regularly by the largest percentage of government officials (Matusow, 1995, 80-83).

Policy scholars generally accept that national media attention follows common trends. For instance, Baumgartner and Jones, in a discussion of their media coverage data sources, explain their rationale for choosing to code the *New York Times* and the *Readers' Guide* by noting that research has demonstrated "media attention trends follow similar patterns no matter which particular indicator is used" (Baumgartner and Jones, 1993, 257). A review of literature cited by Baumgartner and Jones discloses that "there is considerable similarity in news coverage of Congress across the national media" (Patterson and Caldeira, 1990, 34; Tidmarch and Pitney, 1985, 153-155).

Presidential Attention

Following Kingdon's example, I reviewed State of the Union addresses from 1986 to 1995 for expressions of support by the President regarding a revised telecommunications policy. In the case of the Clinton presidency from 1993 to 1995, an executive order promoting new communications policy, policy statements, and major speeches advocating universal service legislation were part of the public record and served as significant expressions of executive interest.

In addition, positive presidential tone regarding telecommunications policy change as reported by news media was considered an indication of presidential support, as was presidential advocacy for telecommunications policy within the context of the *Congressional Quarterly Almanac (CQ)* support score. The latter, presented annually in *CQ*, measures the percentage of times legislators voted in accord with the position of the President (*CQ*, 1995, C-17). It is not a measure of successful presidential initiatives, but rather an expression of presidential position-taking relative to legislation before Congress. Nevertheless, combined with other indications of preference, presidential tone has been a consistent measure, used since 1957 by scholars studying presidential-congressional relations, and provides additional evidence of presidential interest and attitudes toward telecommunications policy change and universal service (Shull, 1997, 81-83).

Telecommunications Policy Literature

Telecommunications Policy is a scholarly journal that began publication in 1977. The number of issues published annually between 1986 and 1995 varied from four annually during 1986-1989, to six in 1990-1991, to nine in 1992-1995. This in itself is an indication of activity in the telecommunications policy domain. *Telecommunications Policy* takes an international and interdisciplinary view of the social, economic, political, and regulatory issues related to telecommunications and information systems. Tables of contents were reviewed for article titles that addressed the topic of a revised U.S. telecommunications policy or the problems with providing universal service in a competitive environment. Relevant articles were analyzed to identify whether a pattern existed over time that linked new universal service policy definitions and images with specific kinds of solutions.

Universal Service Case Research Objectives, Measurement, and Analysis

Because of the number of research objectives, it is useful to summarize data collection, measurement, and analytic techniques before proceeding with a more general discussion of variables, coding, and analysis. A desire for clarity prevailed over misgivings about repetition. In the case of each objective the analysis was informed by extensive reading about the history of the telecommunications industry, transcripts of the congressional deliberations that led to policy decisions, and scholarly interpretations of the policy process.

Research Objective 1 **To evaluate whether issue definition, indicated by increased numbers of media articles, was central to the process of agenda access as measured by congressional attention to telecommunications policy issues (Kingdon and Baumgartner/Jones).**

Research Objective 2 **To evaluate whether trends in telecommunications policy agenda access as measured by congressional attention was influenced by the presence of new policy images in media articles (Kingdon and Baumgartner/Jones).**

Data Collection/Measurement:

A data set was constructed on universal service policy definitions and symbols as reported by selected national media (the *New York Times*, the *Washington Post*, the *Wall Street Journal*, and the professional policy literature indexed in the *LEXIS-NEXIS Academic Universe-Legislative News*) from 1986 to 1995 (for *LEXIS-NEXIS* source material see **Appendix B**).

Data for congressional hearings and legislative proposals were taken from the *CIS Annual* 1986-1995, *LEXIS-NEXIS Congressional Universe*, and THOMAS.

Analysis:

Coding results were analyzed regarding changing universal service definitions (see **Table 4.3 – Basic Definitions and Categorical Variables** on page 82: technology, equity vs. efficiency, social benefits, individual right, etc.), using Chi-square/Fisher's Exact tests of independence and graphical displays.

The trend in universal service agenda access as demonstrated by congressional attention (proposed legislation and numbers of congressional hearings) was compared to the trend in media attention with regard to issue definitions and images during the same time period.

Research Objective 3 **To discover if a problem that reaches the national agenda must have a solution (Kingdon and Baumgartner/Jones).**

Data Collection/Measurement:

Using the media coding form, solutions suggested in national media were traced over the decade preceding passage of the Telecommunications Act of 1996.

Proposals concerning telecommunications deregulation in general, and universal service in particular, were studied in the telecommunications policy scholarly literature for the years 1986-1995 to ascertain proposed solutions for the problem of providing universal service in a competitive environment.

Analysis:

Content analysis and coding of scholarly telecommunications policy literature were techniques used to develop indicators concerning trends in solution generation. Results were used to inform the discussion about how various solutions related to the competing equities raised by the individuals and groups involved in the debate and whether, when the issue reached the national agenda, it was accompanied by a solution.

Research Objective 4 To establish whether by presidential leadership can be decisive in influencing agenda-formation (Kingdon and Baumgartner/Jones).

Data Collection/Measurement:

Articles from news publications quoting presidential and vice presidential statements on the universal service issue (*New York Times*, *Washington Post*, *Wall Street Journal*) and State of the Union addresses for ten years (1986-1995) were coded in order to quantify executive-level attitude and support for a revised universal service policy. In addition, presidential position-taking and support scores for the presidential agenda as measured by the *Congressional Quarterly* were taken into account.

Analysis:

Trends in presidential attention were compared to patterns of national media attention and to increased policy action in Congress on the issue (proposed legislation and numbers of congressional hearings), using graphical displays/tests of independence.

Research Objective 5 To determine whether American politics produces long periods of stability interrupted by short periods of dramatic change (Baumgartner and Jones).

Data Collection/Measurement:

Stability in the telecommunications policy domain was studied by reviewing historical accounts of the telecommunications industry, collecting longitudinal data on the number of articles addressing universal service policy in major news publications (the *New York Times*, the *Washington Post*, the *Wall Street Journal*) and congressional literature. In addition, political elite attention was traced by aggregating numbers of congressional hearings and legislation proposals on telecommunications policy issues from 1986-1995.

Analysis:

It was not possible to quantify whether punctuated equilibrium or cyclical change took place with the passage of the Telecommunications Act of 1996. However a number of variables (changes in the FCC rules and regulatory law, industry status to date, consumer perspective) and scholarly analysis were used to evaluate both the incremental and dramatic change models.

Research Objective 6 **To examine if interest groups play an important role in determining policy images and in fact often define the terms of the debate (Baumgartner and Jones).**

Data Collection/Measurement:

Interest group attention to universal service policy was tracked and coded in major news publications (the *New York Times*, the *Washington Post*, the *Wall Street Journal* and the professional policy literature indexed in *LEXIS-NEXIS Academic Universe-Legislative News*) from 1986-1995. In addition, an interest group profile was developed using data from the list of respondents to a 1991 NTIA Notice of Inquiry and a stakeholders list developed for the NII.

Analysis:

Content analysis of the telecommunications policy literature, national media articles, and historical accounts of the telecommunications industry and policy were supplemented by media coding. The data was aggregated to determine positive, negative, and neutral interest group response to universal service policy as indicated by the media tone in selected national newspapers and professional policy literature. These indicators were supplemented by contextual information. The NTIA Commenters/NII stakeholders' profiles were developed using the Encyclopedia of Associations' taxonomy of organizations.

Research Objective 7 **To discover if a relationship exists between positive media tone and legislative action (Baumgartner and Jones).**

Data Collection/Measurement:

Media articles in the *New York Times*, the *Washington Post*, the *Wall Street Journal* and *LEXIS-NEXIS Academic Universe* containing the phrase universal service were coded both number of stories and tone (positive/support, negative/opposition, neutral).

Analysis:

The media attention, both quantity and tone, was compared with the occurrence of political elite action using graphical displays. Contextual information regarding the media's motivation and capacity to influence telecommunications policy-making supplemented the data.

Research Objective 8 **To determine if public opinion, as one of many venues in a pluralistic society and a component of national mood, plays a role in agenda-setting (Baumgartner and Jones).**

Data Collection/Measurement:

Increased support from public and private interest groups, additional media attention, and advocacy by the President and Vice President were documented through the media coding process and contextual data. In addition, public opinion polls as maintained at the Roper Center for Public Opinion Research were searched using the keyword telecommunications and the phrase universal service. Retrieved questions were analyzed to assess the extent of citizen interest in telecommunications issues.

Analysis:

Tests of independence and information collected during the course of the study were used to determine if there was a relationship between expanded attention and the rise of a policy, in this case universal service, on the national decision agenda.

Data Collection & Analysis

The choice of key phrases was central to the data collection and analysis process. While not synonymous with universal service, the terms information highway and information superhighway were used metaphorically throughout the 1990s, as in the statement by Senator Hollings (D-SC) quoted earlier, to describe the telecommunications network through which universal service would be delivered. Similarly the phrase information infrastructure referred to the technology foundation that comprises broadband networks, while the National Information Infrastructure (NII) the formal name for a network initiative proposed by Clinton-Gore, was another related policy issue. In order to maintain a manageable dataset, names of the seven Bell Regional Operating Companies (RBOC) were not used as keywords. Peripheral telecommunications policy issues such as competition in the cable industry, media ownership diversity, telephone fraud, privacy and security, technology development related to international competitiveness, and so on were excluded as outside the scope of the study.

In general, pattern matching, content analysis, and the study of change in attention to universal service policy as a result of time (political and technological) were the dominant modes of analysis used to test both the similar and the contradictory theoretical assumptions of Kingdon and Baumgartner/Jones. Similar assumptions were examined for underlying structural variance. For instance, when Kingdon discussed the process of arriving at policy solutions, he described an intellectual process within the policy community directed at solving a problem (Kingdon, 1995,

125). Baumgartner and Jones' discussion of policy solutions, on the other hand, focused on argumentation and the creations of new issue understandings (Baumgartner and Jones, 1993, 29).

Differences between the two theories were used to establish a number of independent variables (media attention, interest group influence, and public opinion). The independent variables had characteristics that were measured, such as media tone or frequency of coverage. The goal was to discover if results from the analysis of universal service agenda-setting data matched the overall pattern of outcomes predicted by either the Kingdon or the Baumgartner/Jones' theories or a combination of aspects of the two (Yin, 1994, 108).

In order to build patterns that assessed the degree of media and policy-maker attention to telecommunications and universal service policy from 1986 to 1995 a content analysis, which had as its goal "objectivity, precision, and generality," was used (Pool, 1970, 25). It provided a quantitative element of analysis. In its simplest form, content analysis is a method that allows researchers to convert oral or written communication into numerical data and to trace the distribution of the references selected for study over time. Following procedures described in detail below, universal service definitions, images, or solutions were categorized and the categories were used to code media articles, hearings, and proposed legislation. The results demonstrated patterns and relationships among media and policy-makers' attentiveness, the agenda-setting process, and policy change.

Agenda-setting is indisputably part of a larger context that is "constantly changing, creating new constraints and altering old ones" (Cobb and Elder, 1983, 188). In this regard time, particularly political time and technological time (during which the capacity of telecommunications networks increased permitting politicians, engineers, and businessmen to envision an information superhighway and its potential to enhance global competitiveness for U.S. industry) was a significant factor in the universal service case. Within the decade studied, three presidents operating under distinct political conditions and ideologies responded or failed to respond to telecommunications policy opportunities. Both time and contextual change are taken into account throughout the analysis.

Coding, Content Analysis, and Pattern Matching

A coding, content analysis, and pattern matching process was applied to national newspapers (the *New York Times*, the *Wall Street Journal*, the *Washington Post*), *LEXIS-NEXIS Legislative News* data, and *CIS* data (proposed legislation and hearings). The first step was to identify appropriate keywords in order to locate all media articles in the selected publications and government documents.

Universal service was the phrase used to identify policy discussion and political action regarding public interest telecommunications policy. Articles and congressional attention directed toward telecommunications industry reform were determined using the following descriptors: **AT&T, American Telephone and Telegraph, Federal Communications Commission, telephone industry, telecommunications regulation, and telecommunications deregulation. Information highway, information superhighway, and information infrastructure** were keywords selected to identify political elite and media attention focused on the development of a high-speed data network.

Universal service policy was conceptualized in terms of primary agenda-setting factors, such as issue definition, policy images, and solutions/alternatives. These were subdivided into categories that reflected common definitions, images, or solutions (see **Table 4.3 – Basic Definitions and Categorical Variables** on page 82 for definitions and descriptions of categorical variables). The variables representing major themes of recent universal service discourse were used to develop a coding form (see **Appendix F**) that provided a structure for the data collection, which yielded key indicators of the agenda-setting process. The object was to trace whether or not changes occurred in the way the issue was defined, if new policy images appeared simultaneously with increased congressional attention, and which solutions had been proposed for the issue over the past decade.

Coding proceeded as follows. The coder wrote the title of the article, author, date, and number of words on the media coding form. Political actors, organizations, and interest groups mentioned in the articles were counted, and their attitudes as interpreted by the article were coded in three categories: support/opposition/neutral. Double counting found only in the *LEXIS-NEXIS Legislative News* data was eliminated during the coding process.

Table 4.3

<p>Basic Definitions and Categorical Variables</p>
<p>ISSUE DEFINITION: A process informed by the definer's core values that result in a description of the essential nature of an issue or problem. After an extensive literature review, the following variables were identified as those definitions used most commonly from 1985 to 1995 in relationship to the universal service policy.</p>
<p>Equity vs. Efficiency – universal service policy discussed as a conflict between equity and efficiency Efficiency (market forces) – an efficient (competitive) market is the most important value Equity – equal opportunity for access to telecommunications/information services is the predominant value Deregulation – telecommunications policy should be deregulated Rural Citizens – although it may be less efficient all citizens must be given access at the same price Low-Income Citizens – access, subsidized if necessary, must be made available for low income citizens Technology – focus on computing and network technology and the information infrastructure Social Benefits – of access to children, low-income persons, rural communities (education and health care) Danger without universal service – there will be information haves and information have-nots Harm caused by universal service – policy is harmful to industry, economy, and/or to consumers Problem of telecommunications industry greed – to consumers and business community Consumer issue – savings/costs from deregulation passed on to consumers Call for preferential treatment – for schools, libraries, health-care facilities, etc. Summary/history/description – of universal service policy</p>
<p>POLICY IMAGE: The common denominator or symbol of a policy. After an extensive literature review, the following variables were identified as those most commonly used to portray universal service policy.</p>
<p>Deregulation – may include discussion of the importance of competition Technology – main theme in the article is telecommunications and/or computing technology Information Highway – or information infrastructure Universal service as detrimental – to economy, to consumers Creation of information haves/have-nots as a problem Essential to the well-being of the rural citizen – importance of universal service Essential to the well-being of the low-income citizen – importance of universal service Conveyor of personal benefits – in terms of education, telecommuting, telemedicine, etc. Argument of the value of an expanded definition of universal service (beyond voice telephony) Cyberporn – network represents a danger, encourages spread of pornography</p>
<p>SOLUTIONS: Suggestions and alternatives for solving or providing a remedy for a problem. From 1986 to 1995 commonly suggested solutions to the problem of providing universal service in a competitive environment were as follows:</p>
<p>Eliminate universal service – policy not necessary, adequate numbers of citizens have service Let the market take its course – competition will drive prices down and solve the access problem Universal Service Fund – establish a fund to pay for universal access Change current system of subsidies Improve/expand universal service – provide additional and expanded services, access to information services Develop new policy (solution not specified) Give states a role in administering policy Deregulation – primarily a discussion of developing less restrictive regulatory policy</p>

The tone of the articles was coded numerically as positive (2), negative (1), or neutral (0) in order to obtain a longitudinal measure of association between attitudes as reported in major daily newspapers, professional policy literature, and agenda status as manifested by proposed legislation, hearings, and successful policy enactment. Kingdon and Baumgartner/Jones assign different meanings to the notion of tone. Although in his discussion of methods Kingdon does not use the word “tone,” he describes two central types of measures. The first type rates the significance his interviewees assign “to the importance of several hypothesized influences on agenda-setting.” A second, his primary measure of agenda status, was “if many respondents talk about a given subject in a serious way, we conclude that the subject occupies a higher place on the agenda than if few respondents discuss it” (Kingdon, 1995, 239). Thus Kingdon relied on tone or nature of the conversation with government officials as they responded to his questions in order to assign categories of agenda status.

Baumgartner and Jones are specific with regard to their use of tone. They note that “every policy image has two components: an empirical and an evaluative. We refer to the evaluative component of a policy image as its *tone* ... Once the image of nuclear power was positively associated with economic progress. Today it is more likely associated with danger and environmental degradation. Tone is critical to issue development because rapid changes in tone of a policy image held by key social actors (such as mass media) often presage changes in patterns of mobilization” (Baumgartner and Jones, 1993, 26). I use tone in the Baumgartner and Jones sense to evaluate whether the attitude of the news article’s author appears to be positive, negative, or neutral toward universal service policy.

I realize that variables such as harm or benefits appear to be collinear with tone. In other words, harm may be assumed to predict negative tone and benefits might be expected to result in a positive tone. Therefore I want to clarify that coders recorded all variables appearing in an article. The evaluative measure tone reflects the attitude of the article’s author toward universal service policy rather than reflecting a specific variable.

Due to time constraints, complete coding of all articles was not possible. For this reason frequency counts, admittedly a weaker measure than the universal service latent content coding, were used to trace media attention to telecommunications industry reform and

telecommunications technology related legislation. Because how the telecommunications policy discussions were framed influenced policy evolution, it was useful to establish patterns of media coverage and congressional attention (hearings and proposed legislation) vis-a-vis three perspectives: universal service; telephone industry reform/deregulation; information infrastructure.

Therefore pattern matching combined qualitative, textual analysis (public interest telecommunications policy: **universal service**) with simple word-frequency counts (telecommunications industry reform: **AT&T, American Telephone and Telegraph, telephone industry, telecommunications regulation and telecommunications deregulation**; technology infrastructure: **information highway, information superhighway, and information infrastructure**) of national media. In addition, the same keywords were used to prepare color-coded, chronological tables of congressional hearings (see **Appendix D**) and proposed legislation (see **Appendix E**). All three concepts (universal service policy – coded red, telecommunications industry reform – coded blue, and information infrastructure related policy – coded green) were often cited concurrently as keywords by *CIS* regarding proposed bills or legislative hearings. In these cases the primary coder made a decision as to the emphasis of the legislation or hearing. Data from the tables is displayed graphically (**Figures 5.1 and 5.2**) to demonstrate the extent of congressional attention to each policy area.

Universal service data was analyzed using S-PLUS for Windows, version 4.5, and Excel 98. Summary statistics were presented for the applicable data, consisting of 378 observations. Relationships were examined using chi-square tests of independence or Fisher's Exact Independence test wherever applicable. Trend was examined via histograms, cross tabulations, and line plots over the decade under study. The frequencies of positive/negative/neutral or yes/no were plotted against each year and displayed graphically. This was particularly helpful when a test of independence had been accepted but it was felt that certain factors might be related.

Since prior theory suggests that media attention is relevant to an issue receiving high agenda status, additional numbers of relevant articles or positive tone was interpreted as indicating successful agenda access. Thus, in proposing the integrated prototype of agenda change, tone or increased frequency of articles was considered the measure of "strength" in the

agenda-formation process. Part of the integrated theory involved modeling this strength against such agenda-defining characteristics as congressional attention and support or opposition for the policy by political elites, interest groups, and industry groups.

Reliability and Validity

Using Robert Yin's "criteria for judging the quality of research designs" (Yin, 1994, 31) the following strategies ensured the integrity of the research design:

- construct validity
- reliability
- internal validity
- external validity

First, construct validity, defined by Yin as "establishing correct operational measures for concepts being studied," was tested following two available tactics (Yin, 1994, 33-34). The research was constructed in order to establish converging sources of evidence that contribute multiple measures of the same occurrence. Then a chain of documented evidence was compiled that constituted converging measures of the same phenomenon (see **Figure 4.1** on page 64) central to the case-study design.

Second, with regard to reliability, operational measures were used whenever possible to collect data for testing the research objectives. Coding was applied to media articles as described previously. A second coder, following the same guidelines, recoded every tenth article to confirm reliability of the media content analysis and the interest group data set. Reliability counts between the two coders were close to 95% with the exception of tone. The primary coder ensured consistency and resolved conflicts related to tone by reviewing all coding twice.

Third, internal validity required pattern matching in order to produce conclusions that established causal relationships and rule out alternative explanations. Relying on theoretical propositions derived from the work of Kingdon and Baumgartner/Jones that frame this study, equivalent methods were used to anticipate an overall pattern of outcomes. This involved the examination of public documents, the work of historians, political scientists, policy analysts, and media not part of the coding process, and the content analysis of telecommunications policy literature. Yin states that when conducting an explanatory case study, "available statistical techniques are likely

to be irrelevant because none of the variables in the pattern will have a ‘variance’ [since] each [is] essentially representing a single data point” (Yin, 1994, 110). While not presuming that statistical techniques were irrelevant, the essence of the research design was corroboration as demonstrated by the convergence of multiple data sources.

Table 4.4

Universal Service Pooled Variables
<p>Definitions:</p> <ul style="list-style-type: none"> ▪ Efficiency; Equity vs. efficiency = Economics ▪ Deregulation = Regulation (Definition) ▪ Equity; Low-income citizens; Rural citizens; Danger without universal service = Equity (Definition) ▪ Technology = Technology (Definition) ▪ Calls for preferential treatment; Social Benefits; Call for expanded definition; Conveyer of personal or social benefits; Danger of information haves and have-nots = Personal Benefits ▪ Harm caused by universal service; Problems of telecommunications industry greed = Harm ▪ Consumer issue = Consumers ▪ Summaries or histories of universal service policy = Summary <p>Images:</p> <ul style="list-style-type: none"> • Deregulation = Regulation (Image) • Creation of haves and have-nots; Essential to rural citizens; Essential to low-income citizens = Equity (Image) • Technology; Information Highway = Technology (Image) • Conveyer of personal benefits; Arguments for an expanded definition = Benefits (Image) • Universal service as detrimental, Cyberporn = Harm (Image) <p>Solutions:</p> <ul style="list-style-type: none"> ▪ Eliminate universal service; Let the market take its course = Time ▪ Create a universal service fund; Change current systems of subsidies = Fund ▪ Improve/expand universal service; Deregulate; Develop a new policy = Change ▪ Let the states administer the universal service policy = States

Although single case studies are often criticized as offering a weak basis for generalization, Yin’s test for judging external validity, “analytic generalization” (mentioned earlier), was applied (Yin, 1994, 36). This dissertation depended to some extent on statistical generalization in addition to being supported by generalization to the findings of other theories. Because the basis for the research design was previous theory, research results were tested in the final analysis against the conclusions of Kingdon and Baumgartner/Jones.

Summary

A case study design adopted from a model suggested by Robert Yin and John Creswell (Yin, 1994; Creswell, 1998) was used to test eight research objectives based on the agenda-formation theories of John Kingdon and Frank Baumgartner/Bryan Jones. Measurable indicators were used to examine some aspects of the previous theory. Other features of agenda-formation were explored using qualitative and quantitative data sources, such as relationships between previous policy understandings and current policy definitions; institutional pressures that influence political action, such as issue density relative to competition for agenda space; and media influence.

The choice of case-study methodology allows the integration of multiple information sources within a critical stages chronology of universal service policy evolution followed by a more detailed explanation of recent legislative action. The salient features of agenda-setting enumerated in the research objectives, and chosen for conceptualization, measurement, and analysis can only be usefully explained in terms of their historical context and connectivity. Data triangulation serves to confirm that what was observed and reported in one instance had the same meaning when examined from another perspective (Stake, 1995, chapter 7).

Determining causal relationships between independent variables such as media attention and the policy process is extremely complex and problematic. Indeed demonstrating causation is not possible, nor was it the intention. In this analysis reliance was placed instead on triangulation and the convergence of data sources. Conclusions were built through an iterative process in which theoretical principles related to the eight research objectives were examined in light of alternative explanations generated by the present study (Yin, 1995, 110-112).

Following Baumgartner and Jones' example, graphs and tables are used to present the research results. In an appendix to *Agendas and Instability in American Politics*, Baumgartner and Jones explain why they chose to present data graphically rather than utilizing more technical methods of analysis. Baumgartner and Jones state: "The most critical problem is that the theory we have developed in this book, like any theory based on positive feedback and strong interaction effects, offers strong explanatory power but little predictive power. One can model the results of a positive-feedback process, but one often has no idea exactly when that process

might begin. Even more problematic is that relationships among variables change during the period of agenda access (Baumgartner and Jones, 1993, 269). This dynamic makes statistical modeling such as time series analysis, problematic.

Finally, although the preceding discussion of methods has required describing the research in terms of its individual components, in reality these components were fluid and interdependent. Kingdon and Baumgartner/Jones' theories were chosen as a framework for investigating the universal service case because of their success in explaining the complexity of agenda change over time. Nevertheless, unique to each theory are conclusions that may be attributed to the choice of data sources and analytical methods. The research tests these conclusions for strengths and weaknesses when applied to the universal service case. Finally, the strengths of Kingdon and Baumgartner/Jones' theories are used to propose a new integrative model for agenda-setting.

Chapter 5

ANALYSIS: SIMILARITIES

For Kingdon and Baumgartner/Jones, agenda-setting activity has four common characteristics: issue definition as a mechanism for mobilizing support, a compelling image that focuses attention, a solution or alternative for the policy problem, and an influential role played by the U.S. President. In chapter five, these similarities will be examined in relationship to the universal service case data.

Kingdon and Baumgartner/Jones analyze agenda-setting on the basis of changes they observed over time in specific policy domains. Nevertheless in each case, as explained in chapter two, the research approach is different. Kingdon declares his intent in the first chapter of *Agendas, Alternatives, and Public Policy*. “We will try to understand why important people pay attention to one subject rather than another, how their agendas change from one time to another, and how they narrow their choices from a large set of alternatives to another” (Kingdon, 1995, 2). In contrast, Baumgartner and Jones introduce the topic in *Agendas and Instability in American Politics*: “Agenda-setting is concerned with the question of whether only those with a single vested interest are able to dominate policy-making in an area, or whether a broader range of actors becomes involved; it is therefore a fundamental question in a democracy” (Baumgartner and Jones, 1993, 7-8). Consequently, despite apparent similarities in agenda-setting principles, two different points of departure and distinctly different data sources and research methods result in divergent outcomes.

Problem Definition, Policy Images

Research Objective 1

To evaluate whether issue definition, indicated by increased numbers of media articles, was central to the process of agenda access as measured by congressional attention to telecommunications policy issues (Kingdon and Baumgartner/Jones).

Research Objective 2

To evaluate whether trends in telecommunications policy agenda access as measured by congressional attention was influenced by the presence of new policy images in media articles (Kingdon and Baumgartner/Jones).

Problems, to paraphrase Kingdon, arise when a condition exists that people want to change. Problem definition, a process informed by the definer's core values, is fundamental to agenda-formation (Cobb and Elder, 1983, 176-177; Kingdon, 1995, 109-110; Sabatier, 1993, 42-44; Stone, 1997, 231). The problem addressed by universal service policy proposals in the mid-1990s was how to pay for universal access to telecommunications services in a competitive environment. At the core of the conflict were fundamental values or "worldviews," including "assumptions about the meaning of community and the nature of property, assumptions that transcend particular issues" (Stone, 1997, 53). A related aspect of problem definition that deserves mention is what Cobb and Elder call its "indeterminate nature." They write: "Policy problems are not simply 'givens,' nor are they simply matters of the 'facts' of a situation. They are matters of interpretation and social definition" (Cobb and Elder, 1983, 172).

According to Stone, symbolic representation as embodied by policy images is "the essence of problem definition" (Stone, 1997, 137). Symbols are the common denominator of any doctrine or policy (Pool, 1970, 14). The meaning of policy images is in the eye of the beholder (Edelman, 1964; Elder and Cobb, 1983; Stone, 1997). How a policy is represented serves to focus attention, construct an explanation of the issue, and suggest a solution. Kingdon has a different concept of the relevance of policy symbols than do Baumgartner and Jones. Policy images are significant to Kingdon because they help to focus the attention of "important people" (Kingdon, 1995, 97). For Baumgartner and Jones, "policy images play a critical role in the expansion of issues to the previously apathetic," presumably whether they are important or not (Baumgartner and Jones, 1993, 25).

Stone outlines four features of symbolic representation:

- narrative stories that explain and offer hope of resolution for difficult problems;
- synecdoche, or condensed figures of speech, where a part represents the whole;
- metaphoric language that implies a comparison between two objects; and
- ambiguity, the use of an image that may mean two or more things at the same time (Stone, 1997, 137-138).

Table 5.1 (see page 92) contains several influential universal service definitions from the past three decades. The first two definitions are included in order to illustrate changes in the way the issue was presented over time. A close reading of **Table 5.1** suggests that the 1991 and 1996 universal service definitions represent a vision that is much-expanded beyond the 1934 or the 1975 universal telephone service concepts, as a result of the potential of broadband networks to provide sophisticated telecommunications services.

A review of the interests and strategies of persons who interpreted and shaped universal service policy over the years illuminates a complex process of policy formulation. In each instance, how the issue was defined was instrumental in broadening the scope of discussion. Increased involvement of previously indifferent persons served to destabilize a stable situation, to expand the discussion, to mobilize bias in favor of policy change, or (in the case of Rostow's 1975 universal service interpretation) to defer policy change (Baumgartner and Jones, 1993, 16; Cobb and Ross, 1997; Schattschneider, 1975, 1-19). A brief discussion of earlier universal service policy sets the context for more recent definitions and demonstrates the mobilization potential of issue definition.

Universal Service: Communications Act of 1934

Following World War I, federal legislation established a number of regulatory bodies intended to relieve an unstable economic situation. In his 1934 State of the Union address, President Franklin Roosevelt promised "to build on the ruins of the past a new structure designed better to meet the present problems of modern civilization" (Roosevelt, 1934, *H.Doc.109*). In keeping with this pledge, Roosevelt recommended to Congress, "for the sake of clarity and effectiveness the relationship of the Federal Government to certain services known as 'utilities' should be divided into three fields: Transportation, power and communications." At his request Congress created the Federal Communications Commission (FCC) with authority over all services that "rely on wires, cables or radio as a medium of transmission" (U.S. House. *Report of Interstate and Foreign Communications. 73rd Cong., 2nd sess., 1934. Rept. 1850*).

Although establishment of the FCC and a regulatory regime with strong "price and entry controls" was motivated by concern about the misuse of business power, it was welcomed by AT&T because it protected the company's sole provider status (Horowitz, 1989, 10). At the time

Table 5.1

Selected Universal Service Policy Definitions and Images, 1934-1996	
<p>Communications Act of 1934</p> <p>For the purpose of regulating interstate and foreign commerce in communication by wire and radio to make available in so far as possible to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication, and for the purpose of securing a more effective execution of this policy by centralizing authority heretofore granted by several agencies and by granting additional authority with respect to interstate and foreign commerce in wire and radio communication there is hereby created a commission to be known as the “Federal Communications Commission,” which shall be constituted as hereinafter provided, and which shall execute and enforce the provisions of this Act.</p>	<p>1934</p>
<p>The Goal of Universal Service and Its Implications for Rates</p> <p>The historic rate pattern for telephone rates represents sound economic policy, and sound social policy as well. The achievement of nearly universal telephone service through the network is an economic advantage for everyone who uses it, and for the national economy. It has permitted the emergence of a balance rate structure under which the telephone companies can earn a fair rate of return on their investment as a whole, and thus attract the capital needed for the development of the network” (House Committee, Rostow, <i>Domestic Common Carrier Regulation, H.R. 7047</i>. Nov. 1975, 262).</p>	<p>1975</p>
<p>Telecommunications in the Age of Information</p> <p>The FCC and the states should interpret the universal service mandate of Section 1 of the Communications Act as encompassing services more advanced than traditional “basic voice service ... The FCC and the states should use increased competition to further universal service goals through what we call Advanced Universal Service Access (Advanced USA)—so that users throughout the country have the opportunity to obtain the same types of telecommunications services that are offered through public networks by carriers or others. Today that might include the ability to access various custom-calling features, facsimile services, and enhanced or information services. In the near future, as SS7 becomes fully implemented it might include some form of “caller ID”... and selective call forwarding. Conceivably, Advanced USA could allow on-line at home access to the Library of Congress, to the extent that its resources are available in electronic format.</p>	<p>1991</p>
<p>Telecommunications Act of 1996</p> <p>In general, Universal service is an evolving level of telecommunications service that the commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services. The Joint Board in recommending and the Commission in establishing, the definition of services that are supported by federal universal support mechanisms shall consider the extent to which such telecommunications services:</p> <ul style="list-style-type: none"> ▪ are essential to education, public health, or public safety; ▪ have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; ▪ are being deployed in public telecommunications networks by telecommunications carriers; ▪ are consistent with the public interest, convenience, and necessity. 	<p>1996</p>

of Roosevelt’s presidency, AT&T was virtually a monopoly. In 1932, the Bell System originated 90% of the local exchange messages (Splawn, 1934, xii). Roosevelt was aware of this situation when he made his request to Congress, as a governmental study of American business had recently been completed with specific focus on the telecommunications, electric, and natural gas-industries. The introduction to the *Preliminary Report on Communication Companies*, submitted

to Congress in 1934, concludes:

This report shows a very liberal scale of salaries for the officials of the American Telephone and Telegraph Company. The generosity with which the management rewards itself, and the magnitude of its operation, call for actual and not nominal regulation. Telephone business is a monopoly—it is supposed to be regulated (Splawn, 1934, xxxi).

The phrase “universal service” was not included in the original law, which stated that in exchange for monopoly control over telecommunications services, AT&T was to make “world-wide radio and communication service” available “at reasonable charges” to “all people of the United States” (see **Table 5.1** on page 92). “Universal service” was a theme however in the testimony of AT&T President Walter Gifford during March 1934 hearings before the Senate’s Committee on Interstate Commerce. Gifford argued that there was no need to vest much power in the proposed FCC because “the Bell system is one organic whole—research, engineering, manufacture, supply, and operation. It is a highly developed relationship in which all functions serve operations to make a universal Nation-wide interconnected service” (Senate Committee, *Regulation of Interstate and Foreign Communications*, 76). In subsequent House hearings, Gifford again made the case that “... statutes and the decisions of [state] courts [have declared] that the telephone is a monopoly and competition against the public interest” (House Committee, *Regulation of Interstate and Foreign Communications*, 200). After a brief debate, the Communications Act of 1934 was voted into law and the statute governed the telecommunications domain for 62 years.

The legislation, part of a larger program that consolidated federal regulatory authority, was compatible with AT&T’s corporate goal of a single interconnected communications system. For AT&T at the time, universal service referred to the interconnection of local exchanges not the interconnection of individuals. Presidential, congressional, and corporate intentions converged to reflect each group’s distinct goals but not necessarily their agreement regarding individual citizens’ access to telephone service. The ambiguous definition of communications services in the 1934 legislation established a framework for subsequent discourse on regulated monopoly versus competition, on public as opposed to private interests, and on the appropriate role of government in legislating equitable access to communications systems.

As might be expected of Depression-era legislation, the 1934 Communications Act tells a story of rationality, regulation, and, above all, government -control. The policy image stresses efficiency (“adequate facilities at reasonable charges”) over equity (“to all people of the United States”) “in so far as possible.” As Murray Edelman notes concerning symbols in general and regulatory legislation in particular: “One of the demonstrable functions of symbolization is that it induces a feeling of well-being: the resolution of tension. Not only is this a major function of widely publicized regulatory statutes, but it is also a major function of their administration” (Edelman, 1964, 38).

Historians, policy analysts, and politicians refer to the 1934 legislation as the genesis of universal communications service. Nevertheless, an examination of the historical record makes the premise of Milton Mueller’s “theory of monopoly,” described in chapter three, a more plausible intent. Mueller contends that the 1934 universal service policy was the result of “a conscious, publicly mediated policy decision” to eliminate fragmentation caused by “dual service” (Mueller, 1997, 9). In brief, the goal as interpreted by Mueller was to eliminate the inconvenience caused by the lack of interconnection between the early Bell system and its rivals, not necessarily to ensure that every citizen had a telephone. More generally, New Deal regulation “defined the public interest as government oversight of rationally functioning, privately owned businesses that provided services universally, cheaply, and in a nondiscriminatory fashion. The economic consequence of this was to stabilize and universalize the infrastructure for commerce” (Horwitz, 1989, 75).

As a preamble to its provisions, definitions, charges, and schedules, the 1934 legislation made a statement of purpose that continues to direct national policy toward a grand social goal: “To make available in so far as possible to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges ...” These words, which have been described as “boilerplate rhetoric” of the 1930s (Mueller, 1993, 354) and as the policy outcome of regulated monopoly (OTA-CIT-470, 1990; Cohen, 1992; Brock, 1994), have provided ample latitude for interpretation.

“The Telephone Network as a Universal and Optimized System” (1975)

A more explicit definition of universal service emerged in 1975 when AT&T encountered long distance competition as a result of a series of court decisions and FCC rulings that jeopardized monopoly protection. In an attempt to reverse this trend, Eugene Rostow, Chairman of President Johnson’s 1968 Task Force on Communications Policy, was hired by the Bell Corporation as a strategist. In his 1975 testimony before a congressional committee, entitled “The Case for Congressional Action to Safeguard the Telephone Network as a Universal and Optimized System,” Rostow forecast the consequences if the FCC continued to “encourage the emergence of business pressures” on the existent network:

First, the real costs of telephone service for the American economy will increase through a wasteful duplication of facilities and slowing up or preventing the introduction of lower-cost high capacity technological innovations. Second, telephone rates for the many millions of household subscribers will be raised sharply, and increases in other rates will also occur. Such a development would be in conflict with the overriding national policy of providing a universal telephone service at reasonable rates through a unified telephone network (House Committee, Rostow, *Domestic Common Carrier Regulation*, H.R. 7047, 256).

From this point on, universal service was explicitly redefined, and its role was extended beyond the intent of the original legislation. Universal service came to mean communications services to everyone rather than just services to most geographic locations.

Characterized as a mandate in the 1934 legislation, not only public interest but national security was threatened according to Rostow if there was any change in the status quo: “The essential Congressional judgment embodied in the 1934 Act is that the public interest will be best served by a unified telephone network, as the most efficient and progressive way to meet the defense needs of the nation, and to provide basic interstate and international telephone services of high quality ‘to all people of the United States ... with adequate facilities at reasonable charges’” (House Committee, Rostow, *Domestic Common Carrier Regulation*, H.R. 7047, 257). He claimed that universal service as provided by AT&T represents “sound economic policy and sound social policy.” The synecdoche was “economic advantage,” which emphasized a positive aspect of the policy, to the exclusion of its disadvantages, such as the cost to consumers and a

lack of innovation in an industry unchallenged by competing service providers. After Rostow's testimony, the threat to an economic advantage represented by universal service "became a convenient argument for the preservation of the Bell System" (Sawhney, 1994, 385).

By using the term "universal telephone service" to make a connection between monopoly regulation and social policy and then linking it to "an economic advantage for everyone who uses it and for the national economy," Rostow expanded the issue to include "many millions of household subscribers." He also connected the problem to AT&T's solution, monopoly regulation that enables "the emergence of a balanced rate structure under which telephone companies can earn a fair rate of return on their investment ..." (House Committee, Rostow, *Domestic Common Carrier Regulation*, H.R. 7047, 256). Rostow maintained that opening the telecommunications market to competition would eliminate universal service. Although attacks on telecommunications regulation did not end in 1975, protection of universal service, defined as affordable communications services to all Americans, became a rallying cry throughout the next two decades for private interest groups and sympathetic legislators.

Telecommunications in the Age of Information (1991)

During the 1980s telecommunications policy became the object of political elite attention because of its perceived role in a declining economy. Congress held hearings on the economic potential of the nation's information and telecommunications industries (Hollifield, 1995, 11). In 1989 Janice Obuchowski, Director of the National Telecommunications and Information Administration (NTIA) advised the Telecommunications Industry Association that "unfair trade practices by some countries as they seek to liberalize their markets have hurt the U.S. [telecommunications industry]" (*Communications Daily*, 1989, 3). Less circumspect, Senator Gore stated that "startup technologies haven't got a chance because we have an artificially maintained monopoly that prevents competition" (*Communications Daily*, 1989, 3).

In February, 1990, the Office of Technology Assessment (OTA) issued a report that challenged lawmakers: "If Congress fails to act decisively and generate broad support, the opportunity to make deliberate choices about new communications technologies—and about the nature of American society itself—will be overtaken by rapid technological advances, the hardening of stakeholder positions and alliances, and the force of international developments and

events” (OTA-CIT-407, 1990, 4). Furthermore, the report cautioned that universal service was threatened. “Today, the concept of providing universal service on a common, shared network, as well as the system of subsidies that supported it, are breaking down. Major questions are being raised about the kinds of communication services that are needed, the degree to which all users have equivalent needs that can be served in the same fashion. Thus, the question of what should constitute universal service in the information age needs to be readdressed” (OTA-CIT-407, 1990, 9-10).

Subsequently, a NTIA notice of inquiry (NOI) was released calling for a comprehensive study of the domestic telecommunications infrastructure. The NTIA received 10,000 pages of documented responses to the NOI from 133 concerned groups and individuals (see **Appendix F – NTIA Infrastructure Report: *Telecommunications in the Age of Information***) (Py, Sams, and Aluise, 1991, 1). In 1991 a 400-page report, *Telecommunications in the Information Age*, was published. The report proposed an expanded definition of universal service, which it called “Advanced Universal Service Access” (Advanced USA), while at the same time suggesting that the subsidy system developed over the years (see **Table 3.3 – Select Telephone Services - Industry Subsidies** on page 48) be reformed: “Increased reliance on competition should prove substantially superior on *both* efficiency and equity grounds to the present system of monopoly and broad, unfocused cross subsidies” (NTIA, 1991, xxv). The issue of universal service policy was being transformed, driven by a new political context, economic conditions, technological advances, and the erosion of telecommunications regulation (see **Table 3.2 – Trend toward Competition in the Telecommunications Industry, 1956-1980** on page 46).

The 1991 NTIA definition of universal service was a marked departure from the 1934 and 1975 definitions with their emphasis on an interconnected, economically efficient network. Just as Baumgartner and Jones describe, new participants were mobilized. *Telecommunications in the Age of Information* declared “the importance of telecommunications to the economic and social well being of the U.S. populace” (NTIA, 1991, 285) and admitted that certain classes of citizens “exhibit much lower [telephone] penetration rates than the population at large” (NTIA, 1991, 297). The report addressed the role of telecommunications in delivering “critical services” such as health care, education, and access for the disabled. It also tentatively predicted that on-line at-home access to the Library of Congress might be possible “to the extent that its resources

are available in electronic format” but expressed doubt about the ability of the ordinary subscriber “to make practical use of [advanced technical] ... features” (NTIA, 1991, 307).

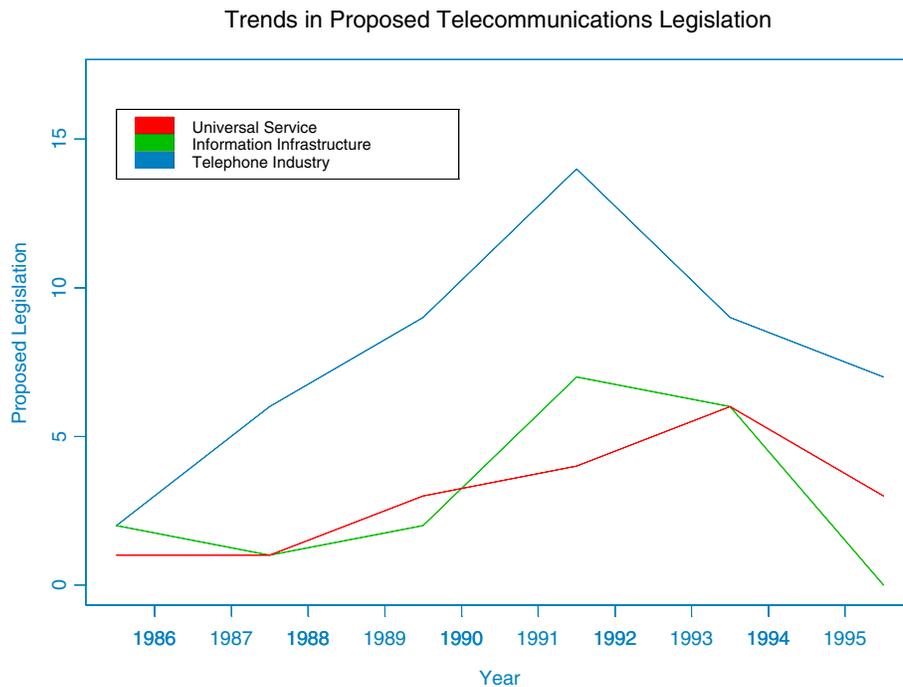
One factor contributing to a lack of enthusiasm for the report may have been its pedantic style of presentation. With the exception of the slogan “Advanced USA” and an emphasis on services for the disabled, the 1991 NTIA report was singularly uninspired in terms of symbolic representation. The vision for universal service was “the universal availability of advanced features, on an optional, low-cost basis throughout the United States” (NTIA, 1991, 11). Technical language was pervasive, as illustrated by the following sentence describing proposed universal service funding. “This combination of competition and narrowly-focused, explicit subsidies would represent a significant improvement on both efficiency and equity grounds over the system of regulated monopoly and complex, unfocused cross-subsidies that currently characterizes certain parts of the local exchange market” (NTIA, 1991, 11).

Rather than attempting the strategic mobilization of a broader constituency through the use of expressive symbols, the language of the report was complex and technical. Although the use of technical terms is typically a tactic when agenda denial or issue containment is the desired outcome, there was little evidence that this was the goal (Cobb and Ross, 1997). In fact, the number of proposed federal legislation and congressional hearings on telecommunications issues began to increase in the early 1990s (see **Figure 5.1 - Trends in Proposed Telecommunications Legislation** on page 99 and **Figure 5.2 - Trends in Telecommunications Policy Hearings** on page 100). The focus at the time, however, was on the telephone industry, on technology as a vehicle for economic development and on the information infrastructure rather than universal service aspects of the policy.

The new universal service definition, in fact telecommunications policy in general, received little coverage by the press from 1988 through 1991. An article in *The Long-Distance Letter* characterized the lack of political action on telecommunications issues as a matter of national mood: “No manner of advertising or lobbying will compel Congress to take up telecommunications issues if they are not directed by demanding constituents ... Legislation such as the Operator Services Bill that passed last year and some 900 anti-pornography bills that passed a year earlier became law because of constituents who sounded like ‘squeaky wheels,’ legislators have said” (*Long-Distance Letter*, 1991, 5). An extenuating circumstance was the

timing of the NTIA report. The Persian Gulf War, a weak economy, and pending presidential elections, were competing for legislators’ attention. In Congress, where the action needed to take place, the tendency was to focus on immediate, short-term issues. The political moment was not suitable, or to borrow Kingdon’s phrase, the “window of opportunity” was not open for major telecommunications policy change in 1991 (Kingdon, 1995, 172).

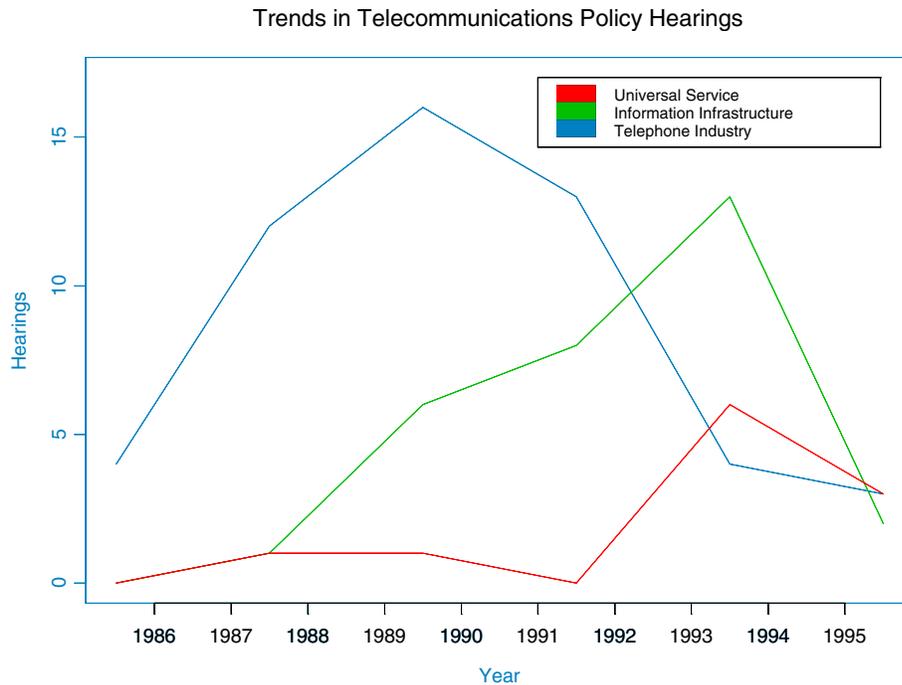
Figure 5.1



Despite the NTIA report’s strong support for pro-competitive deregulatory policies, the threat of rising telephone rates, predicted as an outcome of deregulation was a rallying cry used by consumer advocates and industry groups who believed that their stakeholders were best served by the status quo. Louise Arnheim wrote at the time: “Many politicians are unconvinced that consumers will find the new technology useful in their daily lives. This skepticism may be fueled in part by an alliance of consumer groups and firms that compete with telcos. This group argues that lifting restrictions will lead to cross-subsidies and higher rates” (Arnheim, 1991, 27). In addition, President Bush expressed no public support for the NTIA document. Moreover, legislators faced with competing claims from consumer and telecommunications industry groups chose not to move telecommunications policy onto the national decision agenda. As **Figures 5.1**

and 5.2 illustrate there was a sharp decline after 1991 in Congressional activity relative to regulatory law as evolving technology clearly outpaced lawmakers’ attempts to solve telecommunications issues in a piecemeal fashion.

Figure 5.2



Universal Service: An Evolving Level of Telecommunications Service (1996)

Another influence on the redefinition of universal service policy in the 1980s and early 1990s was disagreement over the proper role of the federal government relative to industrial policy. The NTIA report was careful not to suggest the establishment of a federal “industrial policy.” Thomas Sugrue, the Bush administration’s deputy assistant secretary for communications and information, stated at the time of the report’s publication, “All technology upgrades should be funded and constructed by private industry using its own dime” (Sukow, 1991, 59).

Nevertheless, some members of the policy community believed that the Bush administration failed to recognize that the greatest danger facing the United States was economic competitors such as Japan (Burgess and Richards, 1990, D10). A partisan matter, the conflict was between those who opposed government intervention in the marketplace and those who

advocated public support for privately developed industrial technology (Flamm, 1988, 68-79; Economist, 1990, 27). For the latter, including then Senator Gore, economic competitiveness and “dual use” technology were appropriate policy objectives. They believed in the potential of computing and network technologies to form high-speed communication networks for multiple purposes.

With the nomination of Bill Clinton and Al Gore as the 1992 Democratic Presidential team, a convergence of policy goals took place. Universal service policy became a fundamental part of the Clinton-Gore team’s economic development agenda and “putting people first” programs (Clinton and Gore, 1992). The policy added a populist dimension to what had previously been a matter of economic and global competitiveness (Hollifield, 1995). Universal service served, and continues to serve, multiple political purposes; particularly, it stimulates technological innovation and private investment in network deployment, and at the same time, it supports public interest programs in the areas of education, libraries, and health care.

Thus a redefined concept of universal service became a rallying cry of the Clinton-Gore team’s promise that all citizens would participate in the “Information Age.” In this capacity it served from 1993 to 1995 as the linchpin of a Gore-led alliance of public interest activists, the Farm Team (an influential group of senators from rural, less-populous states), and the computing and telecommunications industry. From the perspective of former Representative Thomas Tauke (R-IA), who headed the Washington operations of NYNEX Corporation, (a Bell Operating Company), the shift in issue definition took place with the election of President Clinton. Tauke was quoted as saying: “Before, when you approached the executive branch [the Bush administration] you had to put arguments [concerning telecommunications policy] in terms of competition in the marketplace. Now, the key argument with the new Administration [Clinton and Gore] is how you build the nation’s infrastructure in order to promote the information age” (Victor, 1993, 681).

Generally, a proposal to provide a universal service is controversial, the point of contention being the price society is willing to pay. The argument involves core values regarding the nature of mankind and basic criteria for distributive justice (Sabatier, 1993, 31; Stone, 1997, 39-60). Between 1992 and 1994, Clinton and Gore defined the issue to appeal to both liberal and conservative constituencies. They appealed to liberals with images such as “information haves

and have-nots,” and simultaneously appealed to conservatives with normative arguments that linked the networks’ potential to create jobs with their capacity to “produce a stronger, more competitive private sector as a result of universal access to network-based information” (*Technology for America’s Economic Growth*, 1993, 1). The Clinton-Gore strategy follows the agenda-building model proposed by Cobb, Keith-Ross, and Ross, whereby emotional symbols and the association of new programs with accepted familiar programs (in this case the information highway with a 1950s transportation initiative) are used to capture attention and move an issue to the public agenda (Cobb, Keith-Ross, and Ross, 1976, 132-135).

In a dissertation on trade press and newspaper coverage of the National Information Infrastructure (NII), Cheryl Ann Hollifield suggested that there was ambiguity in the definition and rhetoric regarding for whom the NII was built:

In initial references to the idea, Clinton made it clear that he was envisioning the NII primarily as an instrument of economic competitiveness ... But by 1993 and 1994, the Administration’s public discussion had a somewhat different tenor focusing on the goal of using the network to allow people to ‘live almost anywhere they wanted without foregoing opportunities for useful and fulfilling employment,’ ensure that ‘the best schools, teachers and courses would be available to students without regard for geography, resources, or disability,’ and make ‘services that improve America’s health care available on-line without waiting in-line’ (Information Infrastructure Task Force, 1993, 3) (Hollifield, 1995, 55).

Within the span of two years, a redefinition of both the NII and universal service took place. Clinton and Gore’s emphasis on the NII as a vehicle for economic growth did not go unnoticed by public interest groups. In 1993 the Telecommunications Policy Roundtable (TPR), was formed, a coalition of nonprofit, consumer, labor, and civil-rights organizations. Coalition members included the American Library Association, Computer Professionals for Social Responsibility, the Consumer Federation of America, and the American Civil Liberties Union. The TPR contended that too much of the NII planning had been dictated by the private sector.

Using the highway metaphor, the organization asked “whether it [the NII] will be a freeway or a toll road?” TPR advanced a number of public interest principles:

- universal access to the information infrastructure;
- policies to insure that electronic technologies create an equitable workplace;

- protection of privacy;
- and advocacy of the use of technology to advance democratic policy-making (Markoff, 1993, D2).

As Baumgartner and Jones predict, “New participants are attracted to the fray as the issue becomes redefined” (Baumgartner and Jones, 1993, 239). In terms of influence and numbers if not wealth, universal service acquired powerful allies with the mobilization of the library, education, technology-industry, and civil-rights groups.

As a result, telecommunications policy became an equity issue as well as an efficiency and deregulatory issue. Politicians and advocacy groups developed “stories” that described how universal access through advanced broadband networks would transform health care, education, employment opportunities, democracy, and life in general. Unlike Rostow’s 1975 efficiency rationale for the maintenance of the status quo and the NTIA report, universal service was interpreted in the 1993 Clinton administration position paper, *The National Information Infrastructure: Agenda for Action* as “a matter of fundamental fairness, a broad, modern concept of Universal Service—one that would emphasize giving all Americans who desire it easy, affordable access to advanced communications and information services regardless of income, disability, or location” (Information Infrastructure Task Force, 1993, 8). Thus universal service was redefined in a way that “spoke not only to corporate America but to the man on the street” (*PC Week*, 1992, 39).

The universal service definition in the 1996 legislation is vague. Services are to evolve, subscribed to by the majority of residential consumers, deployed by telecommunications carriers, and consistent with the public interest. Equity is the prevailing value, not only as an immediate but also as a future goal. Of course, the other side of equity is disagreement about the proper role of the government in mandating distributions, “the heart of public policy conflicts” (Stone, 1997, 39). Ambiguity, in terms of symbolic representation, was the critical tactic used by the Clinton White House to garner sufficient consensus to obtain passage.

The Telecommunications Act of 1996 categorically states that universal service policy will evolve over time but gives few details as to what constitutes “universal.” In establishing new service levels, the FCC and the Federal State Joint Board are to take into account essential needs of education, public health and safety, the market, technology, and public interest. The

legislation describes information technologies, in partnership with universal service policy, as promoting economic development, providing personal benefits, and resolving a number of social problems. Like its 1934 predecessor, the 1996 Act is purposely obscure, leaving the federal government, the states, and the courts to provide clarity and to reconcile a tension between efficiency and equity values.

Issue Definition Indicators

This analysis of universal service issue definitions and images, is based on coding of media articles, congressional hearings, and proposed legislation (combined with contextual information from the national media, government documents, professional policy literature, and scholarly papers). To provide a workable data set, the results of coding universal service definition categories were aggregated as follows (see **Table 4.4 Universal Service Pooled Variables** on page 86):

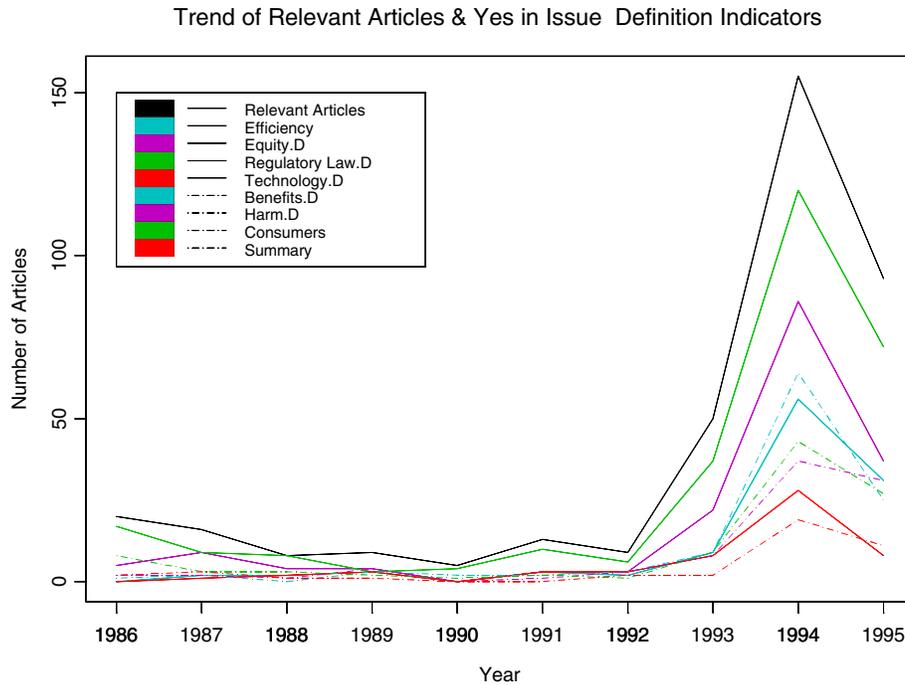
- **Efficiency; Equity vs. efficiency** = Efficiency
- **Deregulation** = Regulatory Law (Definition)
- **Equity; Low-income citizens; Rural citizens; Danger without universal service** = Equity (Definition)
- **Technology** = Technology (Definition)
- **Calls for preferential treatment; Social Benefits; Call for expanded definition; Conveyer of personal or social benefits; Danger of information haves and have-nots** = Personal Benefits
- **Harm caused by universal service; Problems of telecommunications industry greed** = Harm
- **Consumer issue** = Consumers
- **Summaries or histories of universal service policy** = Summary

A table shows the count of “yes,” (that is the mention of specific definition categories, i.e., efficiency, regulatory law, etc., within articles containing the term **universal service**) plotted against the total number of relevant articles to provide a longitudinal measure of attention to universal service (see **Appendix G: Universal Service Issue Definitions—Table 1**).

The data displayed graphically (see **Figure 5.3 – Trend of Relevant Articles & Yes in Issue Definition Indicators** on page 105) suggests that in 1993 media attention to universal service policy began to rise in all definition categories. The pattern reflects a similar if not so precipitous trend in congressional attention (see **Figure 5.4 – Trend of Legislation and**

Hearings: Universal Service on page 106). This trend does not validate a causal relationship between media and congressional attention but it indicates that a linkage may exist since there is clearly interdependence between congressional policy debate and political news.

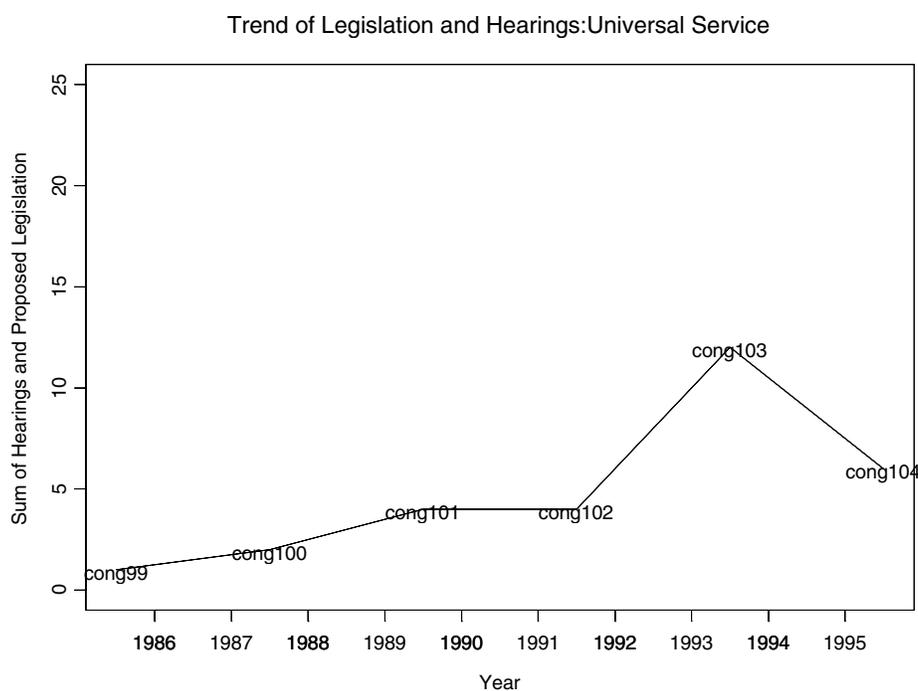
Figure 5.3



Beginning in 1992 as debate over revision of the 1934 telecommunications legislation reached the congressional decision agenda and was promoted by Clinton-Gore during their campaign, universal service received increased attention. Equity and efficiency concerns, technology, discussion of the potential of network-based educational and social services, the benefits to individuals of telecommuting, and articles regarding possible negative impacts of a new policy all increased to some degree from 1992 to 1994 as a result of an issue redefinition.

Regulatory law was by far the most frequent definition applied to universal service. That universal service policy was discussed primarily in a legal context is to be expected since in the final analysis, regulatory change was the overriding goal of telecommunications policy revision. Definitions that concentrated on technology per se, the harm caused by universal service as the result of increased prices to consumers, and problems of telecommunications industry greed received generally less attention from the press.

Figure 5.4



Looking at the test of independence results (see **Table 5.2 Cross Tabulations for Issue Definition versus Tone** on page 107) one sees that the variables, apart from the consumers' definition variable, are not independent of tone (at level of significance $\alpha = 0.05$). In addition, a higher percentage of those articles (20% in each case) were more apt to have a negative tone than other definitions. The majority of articles with efficiency as a definition, however, had a neutral (43%) or positive (48%) tone relative to universal service. Few articles (41) summarized the history of universal service policy but of these a higher percentage had a negative tone than any other definition category.

With the exception of regulatory law, there were not enough articles in the definition categories in the early years to develop a longitudinal analysis of tone. Nevertheless, even aggregated indicators for tone (see **Table 5.2**) suggests that there was a relationship between article tone and new telecommunications definitions. The definitions that were mentioned the most often, such as changes in regulatory law and equity concerns, were the most likely to have a neutral or positive tone suggesting enthusiasm for a new vision for universal service. This trend

beginning in 1993 appears to confirm the impact that Clinton-Gore presidential support had in raising issue visibility in an affirmative sense. Strategic definitions (benefits to be gained from universal service and equity issues concerning low income and rural citizens) generated the highest percentages of positive media coverage, 56% and 61% respectively. On the other hand, harm as was found in a higher percentage of negative (20%) or neutral articles (57%) than any other definition category except articles that summarized the history of universal service.

Table 5.2

Cross Tabulations for Issue Definition versus Tone

Variables	Level	Tone *						Totals
		Negative		Neutral		Positive		
Efficiency Chi-Square = 0.0000	No	(24)	9	(133)	48	(113)	42	(270)
	Yes	(10)	9	(46)	43	(52)	48	(108)
Equity (D) Chi-Square = 0.0003	No	(22)	11	(123)	60	(60)	29	(205)
	Yes	(12)	7	(56)	32	(105)	61	(173)
Benefits (D) Chi-Square = 0.0001	No	(20)	7	(144)	54	(103)	39	(267)
	Yes	(14)	13	(35)	32	(62)	56	(111)
Harm (D) Chi-Square = 0.0000	No	(16)	6	(128)	44	(145)	50	(289)
	Yes	(18)	20	(51)	57	(20)	22	(89)
Technology (D) Chi-Square = 0.0094	No	(23)	7	(154)	48	(145)	45	(322)
	Yes	(11)	20	(25)	45	(20)	36	(56)
Regulatory Law (D) Chi-Square = 0.0401	No	(10)	11	(33)	36	(49)	53	(92)
	Yes	(24)	8	(146)	51	(116)	41	(286)
Consumers Chi-Square = 0.6920	No	(23)	8	(133)	48	(123)	44	(279)
	Yes	(11)	11	(46)	46	(42)	42	(99)
Summary Fisher's Exact = 0.0000	No	(22)	7	(158)	47	(157)	47	(337)
	Yes	(12)	29	(21)	51	(8)	20	(41)

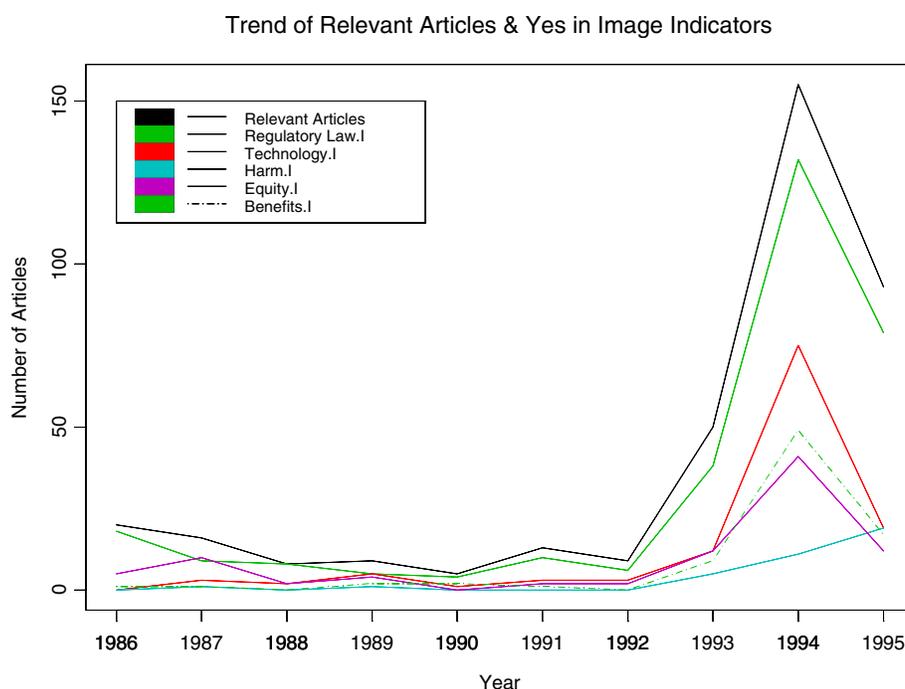
*Numbers in parentheses = frequencies; Numbers not in parentheses = percentages.

Policy Image Indicators

Universal service policy was represented by a number of images that portrayed the issue in symbolic terms (see **Figure 5.5 – Trend of Relevant Articles & Yes in Image Indicators** on page 108). Categories of policy images were aggregated to devise a workable dataset:

- **Deregulation** = Regulatory Law (Image)
- **Creation of haves/have-nots; Essential to rural citizens; Essential to low income citizens** = Equity (Image)
- **Technology; Information Highway** = Technology (Image)
- **Conveyer of personal benefits; Arguments for an expanded definition** = Benefits (Image)
- **Universal service as detrimental; Cyberporn** = Harm (Image)

Figure 5.5



Since policy images closely reflect universal service definitions, the results were somewhat comparable. For example, regulatory law continues to receive the most attention (309 articles), and harm as a result of universal service receives the least (37 articles). To the contrary, possibly as a result of the information highway metaphor, technology as an image was used frequently (123 articles).

Looking at the test of independence results (see **Table 5.3 – Cross Tabulations for Policy Image versus Tone** on page 109), one sees that most of the image variables, with the exception of regulatory law, are not independent of tone (at $\alpha = 0.05$). Unlike the technology definition, articles containing the technology image generally had a positive or neutral tone. Although benefits appeared as an image in only 82 articles and equity in 90 articles, the positive tone percentages were similar to equity and benefits issue definitions, 56% and 67% respectively. Harm caused by universal service was an image that appeared in the highest percentage of negative articles (35%). Therefore, as with the universal service definitions, article tone appeared to relate to images.

Table 5.3**Cross Tabulations for Policy Image versus Tone**

Variables	Level	Tone *						Totals
		Negative		Neutral		Positive		
Technology (I) Chi-Square = 0.0025	No	(15)	6	(132)	52	(108)	42	(255)
	Yes	(19)	15	(47)	38	(57)	46	(123)
Harm (I) Fisher's Exact = 0.0000	No	(21)	6	(161)	47	(159)	47	(341)
	Yes	(13)	35	(18)	49	(6)	16	(37)
Benefits (I) Chi-Square = 0.0000	No	(24)	8	(153)	52	(119)	40	(296)
	Yes	(10)	12	(26)	32	(46)	56	(82)
Equity (I) Chi-Square = 0.0057	No	(29)	10	(154)	53	(105)	36	(288)
	Yes	(5)	6	(25)	28	(60)	67	(90)
Regulatory Law (I) Chi-Square = 0.1230	No	(10)	14	(27)	39	(32)	46	(69)
	Yes	(24)	8	(152)	49	(133)	43	(309)

*Numbers in parentheses = frequencies; Numbers not in parentheses = percentages.

Information Highway

The policy image most successful in capturing attention as demonstrated by national newspaper interest was the “information superhighway” metaphor applied to broadband (high capacity) telecommunications circuits that employ fiber-optic technology to carry significant amounts of digitized information. The highway symbol was used initially to represent the National Research and Education Network (NREN), a component of the High Performance Computing Act that was introduced in 1989 and became law in 1991.

A precursor to the NII, the NREN was not intended to provide access to all citizens, although it did contain a clause stating that, “Federal agencies and departments shall work with private network service providers, State and local agencies, libraries and educational institutions and organizations, and others, as appropriate, in order to ensure that researchers, educators, and students have access as appropriate to the network” (*High Performance Computing Act of 1991*, 102nd Congr., 1st sess., S.272). The NREN’s most determined congressional supporter was Senator Gore (D-TN) who in a 1990 interview identified it as a vehicle for economic development. The NREN, Gore stated, “is the most important addition to the nation’s infrastructure since the interstate highway system ... The advantages that will come from the critical mass generated by this network will allow us to leapfrog the Japanese in a number of related fields” (Morrison, 1990, 45).

The transportation metaphor converted a complex technical concept, namely computer and telecommunications networks, into a symbol that was understood by the general public, and

was accepted across policy venues. The metaphor represented both public interest and technology aspects of telecommunications policy. As illustrated by **Figure 5.6 – Trend in Information Highway Image** (see page 111), media attention to the “information highway” metaphor increased exponentially after the election of Clinton and Gore, in 1993 and declined just as quickly as the novelty of the image waned.

Like most matters related to telecommunications, the analogy between communications lines and roads may be traced back to Theodore Vail, who wrote in the 1910 AT&T annual report:

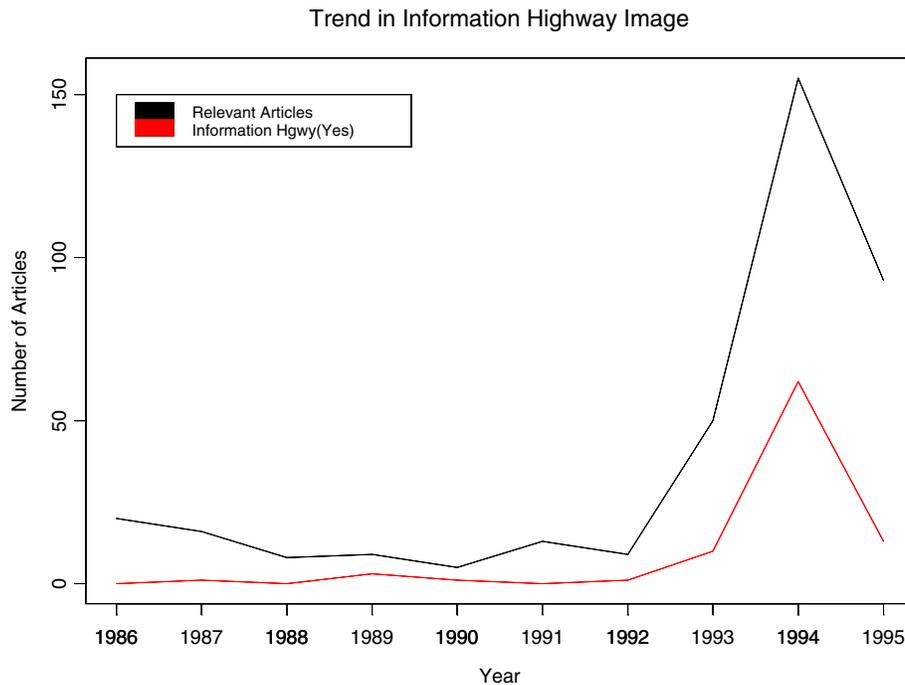
The Bell system was founded on the broad line of ‘One System’, ‘One Policy’, ‘Universal Service’, on the idea that no aggregation of isolated independent systems not under common control, however well built or equipped, could give the country the service. One system with a common policy, common purpose and common action; comprehensive, universal, interdependent, intercommunicating like the highway system of the country, extending from every door to every other door, affording electrical communication of every kind, from every one at every place to every one at every other place (Vail, 1990, 230).

Vail emphasized interconnection as a means of achieving his vision of AT&T as the single communications service provider. With his stress on “every one” at “every place” and “every door,” Vail presented “universal service” as a democratic ideal and a communications system analogous to the nation’s transportation system.

Like Vail, Gore’s early use of the information highway symbol supported corporate goals in the name of the public interest. For example, Gore stated in a 1989 interview that, “Well into the next century, American competitiveness will depend largely on our ability to exploit our advantage in high performance computing ... The analogy to an interstate highway system is particularly apt. New businesses will cluster around the interchanges. Once the links are there the number of users will increase exponentially” (Kriz, 1989, 2292). Several months later, when introducing the National High Performance Computing Act to a group of educators, Gore recast the image: “Supercomputers are the steam locomotives of the Information Age ... In the Industrial Age, steam locomotives didn’t do much good until the railroad tracks were laid down across the nation. Similarly, we now have supercomputers going into the seventh generation of supercomputers, but we don’t have the interstate highways that we need to connect them” (Kerr,

27, 1990). In both instances, Gore promoted a robust telecommunications infrastructure as a requirement for economic development.

Figure 5.6



The media linked Gore’s advocacy of universal service with the information superhighway image and, in particular, with his promotion of the establishment of a Universal Service Fund to wire all public schools, libraries, and health-care facilities. A typical example appeared in a 1994 *New York Times* editorial:

Vice President Gore envisions an America where poor children sit in front of a television tapping into information and where everyone calls up a vast array of newspapers, movies, and encyclopedias at the click of a TV controller. Mr. Gore hasn’t filled in all the bricks of a new communications policy. But he has supplied a sound foundation. Private investment is to put in the superhighway; everyone gets to take a ride ... (*New York Times*, 1994, A16).

The highway symbol as used by Vail and Gore demonstrates how effectively a single symbol/image may be used to mobilize support for both corporate and public interest policy goals.

In both instances, the symbol was used strategically to influence policy-making related to development of the nation's communications network. Public interest arguments that included universal service claims and highway policy images broadened the scope of the discussion in a classic Schattschneider expansion-of-conflict mode. As predicted by Kingdon and Baumgartner/Jones, the discussion was expanded by new policy images, in this case an information highway that was first presented as a tool for U.S. business and industry and later as beneficial for all citizens. The new image focused the attention of political elites as predicted by Kingdon and mobilized, as described by Baumgartner and Jones, "previously apathetic" educators, librarians, and groups representing minorities, who came to recognize the potential of the "information superhighway" to serve their constituencies.

Cobb and Elder distinguish between the affective or emotive extent of a person's orientation toward a symbol that is "the positive or negative sentiment he or she associates with that symbol ..." and the cognitive component of a symbol, which "refers to all a person 'knows' about an object and what it stands for" (Cobb and Elder, 1983, 37-38). The affective dimension tends "to be more critical and contributes more to systemic functions that symbols serve. In a sense, it provides the glue that holds large-scale political and voluntaristic coalitions together" (Cobb and Elder, 1983, 138). Through a strategic redefinition process that blended equity-related symbols such as information haves and have-nots with an expanded image of universal service and the appealing information highway metaphor, telecommunications policy in 1994 and 1995 was recast as an issue of fundamental democratic rights.

In sum, Clinton and Gore framed the universal service problem to appeal to "affective orientations" and built a coalition of politicians, private-sector entrepreneurs, and public interest activists intent on retaining universal service regulation within new deregulatory telecommunications policy. Harmeet Sawhney writes, "the redefinition of universal service ... is not as important as the development of an 'overlapping consensus' that hitches the pursuit of private gain to the creation of a public good. The 'overlapping consensus' has more to do with convergence of agendas and formation of coalitions than an explicit agreement on a course of action" (Sawhney, 1994, 389).

Conclusion: Issue Definition, Policy Images, and Symbols

- Research Objective 1** **To evaluate whether issue definition, indicated by increased numbers of media articles, was central to the process of agenda access as measured by congressional attention to telecommunications policy issues (Kingdon and Baumgartner/Jones).**
- Research Objective 2** **To evaluate whether trends in telecommunications policy agenda access as measured by congressional attention was influenced by the presence of new policy images in media articles (Kingdon and Baumgartner/Jones).**
- Research Finding 1 and 2** **New issue definitions and images, included in increased numbers of media articles on universal service, influenced the trend in agenda access as measured by congressional attention to universal service policy.**

Although Kingdon and Baumgartner/Jones agree that problem definition is central to the agenda-formation process, they differ in their views on why it is important and how the definition process works. Kingdon concentrates on how problems are recognized by “important people” and the role that “values, comparisons, and categories” play in the definition process. He notes a tendency on the part of government, certainly true of telecommunications policy discussions from the mid-1980s until the early 1990s, “to preserve the old categories as long as possible” (Kingdon, 1995, 112). Eventually a new category, in this instance broadband network technology and deregulatory legal decisions, requires new definitions and images.

Baumgartner and Jones consider policy images the essence of problem definition and describe how images play a critical role in expanding interest in a problem from one venue to another. For Baumgartner and Jones, image presentation is key to definition. Through problem redefinition and the “manipulation of images,” interest in the issue expands into the public arena beyond the political elites and experts who share values, knowledge, and, control.

Applying both perspectives to the telecommunications policy case from 1986 to 1995 informs the process because both represent a part of the dynamic. As Kingdon predicts, those who benefited from the regulatory rules defined the issue in order to discourage change. Defenders of regulated monopoly, hoping to restrict the debate and resist change testified before Congress that universal service would not be viable in a competitive market because universal

service depended by its very definition on a unified network with “end-to-end responsibility” for service (AT&T, National Telephone Cooperative Association (NTCA)). Conservative legislators (Bob Dole, R-KS; John McCain, R-AZ), Bob Packwood (R-OR) and policy analysts (Peter Huber, Milton Mueller, Adam Thierer) framed their arguments in terms of economic growth. They argued that at the very least universal service subsidies must be made explicit in order to minimize their “inefficient or anti-competitive effects” (Thierer, 1994).

At the same time, legislators from rural states, with small constituencies and an interest in securing below-cost telecommunications services for their citizens, defined the issue as a matter of equity and affordable services in remote locations. Their arguments included impassioned pleas for the rights of rural citizens and school children to network-based information (Dorgan, D-ND; Exon, D-NE; Rockefeller, D-WV; Leahy, D-VT; Snowe, R-ME; and Stevens, R-AK). Their interests converged with those of several professional associations, the FCC, and public interest groups, in particular educators, librarians, and civil-rights advocates, who also approached universal service policy from an equity perspective.

The focus was on the growing disparity between “information haves and have-nots” in a world ever more dependent on access to information through telecommunications technologies (Hadden, Kapor, Irving, Schement). An overview of universal service policy definitions illustrates the relevance of Kingdon’s stress on the relationship between the issue definition/image process, agenda-formation, and the values of “important people.” For example, the status of universal service rose with the election of Clinton and Gore who as will be explained more fully later in the chapter, placed telecommunications high on their policy agenda.

This dynamic is described by Baumgartner and Jones as the mobilization of previously apathetic persons. The collaboration of public interest groups in response to the NII initiative and the information highway image was critical in transforming the definition of telecommunications from an issue of interest to telecommunications industries and lawyers to one of concern to all citizens. This collaboration promoted equity values when the public interest groups demanded that the information highway be a freeway not a toll road. Thus aspects of both Kingdon and Baumgartner/Jones’ theories correctly anticipate how new issue definitions and images played a role in the universal service agenda-setting process.

As noted earlier in the discussion of issue definition and image indicators, universal service definitions and images appear to have had an effect on the tone of news articles. In the early years, 1986 to 1992, regulation was the primary symbol of universal service as reported in national newspapers and professional policy literature. The primary tone of regulatory law articles was neutral (51%). From 1993 to 1995 however, the positive benefits of telecommunications services became more obvious including the potential of broadband networks to deliver health, education, entertainment, and social services to the home. Articles on universal service with benefits as a definition or image generally had a positive tone (56%). If I consider the article's authors as representing the national mood, then I can justify the use of increased numbers of articles in a definition or image category (see **Figures 5.3** and **5.5**) accompanied by a high percentage of positive tone as a trend in favor of moving universal service policy to high agenda status.

The *New York Times* reported in 1993, "Policymakers are seeking ways to incorporate the public interest in telecommunications, but there are no easy answers. One idea is to broaden 'universal service'—the affordable minimum—to include more than just phones" (Andrews, 1993, Sec.4, 3). It was at this time that universal service definitions and images changed from being almost exclusively presented by legal terminology to suggest a new vision for telecommunications policy. Federal legislative proposals and congressional hearings (see **Appendices D and E**) from the Congress: 99th-2nd Session to the 104th-1st Session) stressed technology, promoted egalitarian ideals such as equal access to information, and anticipated the benefits of universal access, such as telecommuting.

New issue definitions and images appealed to democratic values and lifestyle concerns. This change in imagery promoted a new understanding of the issue that until 1993 had been mired in arcane deregulatory concepts, familiar for the most part to politicians, lawyers, the telecommunications industry, consumer activists, and policy scholars. Finally the issue-definition and image indicators demonstrate conclusively that definitions and images of universal service changed between 1986 and 1995. The result, as measured by increased congressional attention was agenda access for a redefined universal service policy.

Solutions: (Policy Alternatives)

Research Objective 3 To discover if a problem that reaches the national agenda must have a solution (Kingdon and Baumgartner/Jones).

Solutions that reach the national policy agenda are generally compatible with the objectives of the persons involved in the policy-making process. To quote Mucciaroni, “Those who develop and disseminate solutions do so in ways calculated to bolster and encourage political allies, disarm or placate opponents, and persuade those who are indifferent and ambivalent” (Mucciaroni, 1992, 474). Kingdon and Baumgartner/Jones agree that for a policy to rise to the top of the national agenda it must have a solution. But they do not agree about what is involved in the solution-generation process. Kingdon focuses on the evolution of ideas and the intellectual process of arriving at a solution. Baumgartner and Jones concentrate on policy makers’ presentation of the debate, “argumentation and creation of a new understanding of an issue, [and] ... changing definitions of what would be the most effective solution to a given public problem” (Baumgartner and Jones, 1993, 29).

For his part, Kingdon describes arriving at a solution to a policy problem as “biological natural selection” in which ideas float around in a “policy primeval soup,” some eventually rising to the top as solutions for a policy issue (Kingdon, 1995, 116-118). He characterizes the community that generates “policy alternatives” as fragmented. It is composed of experts—academics, bureaucrats, policy analysts, legislators, consultants—working in a given policy area, often independently, to influence policy outcomes. He emphasizes that policy learning is as important as political influence and the mobilization of previously disinterested persons in moving issues with their solutions onto the “decision agenda” (Kingdon, 1995, 125-127).

According to Kingdon, policy entrepreneurs educate decision makers regarding their preferred solutions by means of presidential speeches, reports, legislative hearings, papers in professional journals, White House conferences, advisory groups, and the like. An alternative that survives must meet the following criteria:

- technical feasibility;
- value acceptance within the policy community;
- reasonable cost;

- anticipated public approval; and
- endorsement by elected officials (Kingdon, 1995, 129-131).

Although Kingdon's discussion of the relationship between problems and solutions is useful and relevant in describing interaction between policy elites, it fails to capture all aspects of the universal service case.

The missing dimension is added by Baumgartner and Jones' discussion of the link between problems and solutions in valence issues where only one side of the debate is justifiable. Universal service falls into this category because few would argue that creating a society divided between "information haves," and "information have-nots" is desirable. Valence issues are likely to be understood differently as their context changes. Thus they require distinct solutions at different points in time (Nelson, 1984, 3). Baumgartner and Jones use "connecting solutions to problems" as a point of departure for a discussion of mobilization that results in the "lurching" behavior of government. New legislation (solutions) commits funds and creates bureaucracy. Meanwhile, public interest in the issue often fades, but the newly created agency by definition perpetuates itself generating reports and calling attention to the problems within its policy area (Baumgartner and Jones, 1993, 150-171).

The Communications Act of 1934 began to unravel in the 1950s, as the technology began to evolve. In the 1970s, when deregulation litigation started to jeopardize the regulated monopoly status of AT&T, the FCC and policy makers proposed a number of solutions to solve the issue of paying for universal service. Although many policy alternatives were tried such as access charges (Brock, 1994, 195-214), a mandatory common line revenue pool (*Communications Daily*, 1986, 3), price rate caps (Kriz, 1988, 1408; Shields, 1991) and several subsidized programs (see **Table 3.3 – Select Telephone Services – Industry Subsidies** on page 48), none were satisfactory. In fact, these policy alternatives were generally perceived as giving an unfair advantage to one or another segment of the telecommunications industry.

By 1986 there was general agreement that the regulatory solutions contained in the Communications Act of 1934 were ineffective (see **Table 3.2 – Trend toward Competition in the Telecommunications Industry** on page 46). During the ten years under study, solutions for the universal service problem spanned a continuum. At one extreme, it was recommended that

universal service be eliminated in order to allow the market to take its course (NTIA, 1991; Browning, 1993; Huber, 1993; Thierer, 1995). At the other end of the continuum, universal access subsidized when necessary, to broadband information services for all relevant groups was advanced as a solution (Hadden, 1994; Gore, 1994; Schement, Pressman, and Povich, 1995). In between policy alternatives concerning the nature, extent, administration (appropriate role for federal and state agencies), and means of funding universal service were the focus of competing interest group claims.

States and consumer groups were reluctant to have costs increase or, in the case of state regulators, to have their role in administering policy diminished. Local providers were loath to lose universal service payments. The long distance carriers, AT&T and their potential competitors (cable television industry, RBOCs, public utilities, newspaper publishers, etc.), were averse to any solution that appeared to give their rivals an advantage. As Schattschneider observed about political contests in general, “Antagonists can rarely agree on what the issues are because power is involved in the definition ... the definition of alternatives is the choice of conflicts, and the choice of conflicts allocates power” (Schattschneider, 1975, 66).

Before the mid-1990s, information services delivered through networks were not part of the lives of most citizens or legislators. During their campaign and immediately after their election, Clinton and Gore aggressively promoted telecommunications technology. As described earlier, they nested the equity concept in the broader deregulation goal thus shifting attention strategically from one definition—deregulation, economic development, and competition—to another—universal service as an equity issue. The education, health-care, and library communities formed a coalition with minority-rights activists and legislators from the rural states to advocate universal service as policy solution for a number of social and locational problems.

The solution, described in the Telecommunications Act of 1996, was to create a Universal Service Fund to which all carriers contribute:

Every telecommunications carrier that provides interstate telecommunications services shall contribute on an equitable and nondiscriminatory basis, to the specific, predictable and sufficient mechanisms established by the Commission to preserve and advance universal service. The Commission may exempt a carrier or class of carriers from this requirement if the carrier’s telecommunications activities are limited to such an extent that the

level of such carrier's contribution to the preservation and advancement of universal service is de minimus. Any other provider of interstate telecommunications may be required to contribute to the preservation or advancement of universal service if the public interest so requires. (Telecommunications Act of 1996. Sec. 254.)

The idea of a fund that explicitly accounts for universal service costs to replace the network of hidden subsidies that had supported universal service for many years was not new. Kingdon writes of the futility in trying to trace the source of an idea: "Everything has its antecedents, trapping one who attempts to track down an ultimate origin into an infinite regress" (Kingdon, 1995, 141). In fact, as early as 1980, Congressman Albert Gore, Jr. represented the Rural Telephone Coalition as an advocate for legislation that would establish a pool of monies, namely the National Telecommunications Fund, to maintain affordable rural telephone rates. An article in the *National Journal* at the time notes that, "there is considerable confusion over how this pool [fund] would operate" (Mosher, 1980, 400).

The same may be said for the 1996 Universal Service Fund. Policy entrepreneurs made tactical use of ambiguity to build consensus for their preferred solutions. Deborah Stone explains that "ambiguity enables leaders to carve out a sphere for maneuvering hidden from public view, where they can take decisive action on a problem. Legislators can satisfy demands to do something about a problem, by passing a vague statute with ambiguous meaning, then letting administrative agencies hash out the more conflictual details behind the scenes" (Stone, 1997, 158). The Federal Communications Commission continues working to date (1999) toward a resolution of the contradictions and ambiguity for instance how charges will be assessed relative to the 1996 Universal Service Fund solution (Simons, 1998; Clausing, 1998; Mendels, 1998; Clausing, 1999; *New York Times*, 1999).

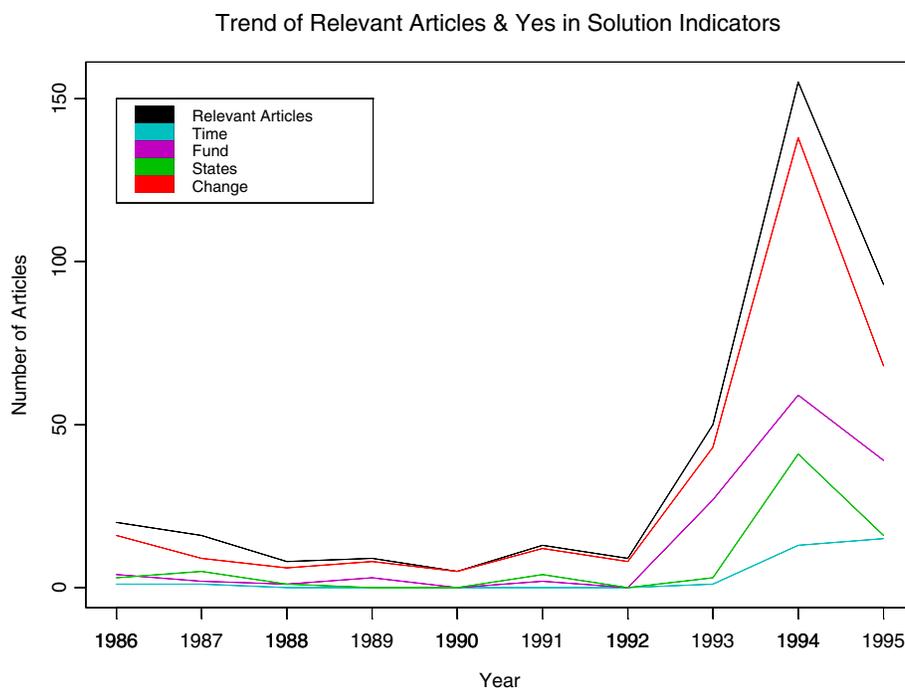
Solutions: Indicators

This examination of solutions, in addition to information supplied by government documents, and historical accounts, is based on two measures of telecommunications policy alternatives. The first is media coding data results while the second is an analysis of *Telecommunications Policy* a scholarly journal on telecommunications issues. In analyzing data from the media forms, solution categories were aggregated as follows:

- **Eliminate universal service; Let the market take its course** = Time
- **Create a universal service fund; New systems of subsidies** = Fund
- **Improve/expand universal service; Deregulate; Develop a new policy** = Change
- **Let the states administer the universal service policy** = State

Almost all articles on telecommunications policy reform and universal service from 1986 to 1995 as demonstrated by **Figure 5.7 – Trend of Relevant Articles & Yes in Solution Indicators** (see page 120) agree that the time had come for a change. Many articles debated the pros and cons of various funding mechanisms. But (with the exception of people writing for the *Wall Street Journal*) comparatively few authors advocated the elimination of universal service, and there was little agreement as to the role of state regulators in a deregulated world.

Figure 5.7



Change or a new solution was the major focus of media attention (313 out of the 378 articles) while time (no change and let the market take its course) was in general not a preferred solution (31 out of 378 articles). Looking at the test of independence results (see **Table 5.4 – Cross Tabulations for Solutions versus Tone** on page 121), I see that only the solution

variables time and change are not independent of tone (at $\alpha = 0.05$). Most articles advocating change as a solution have a positive (46%) or neutral (46%) tone. There was not much discussion of delegating a major decision-making role for universal service policy to the states (73 out of 378 articles) although articles addressing this issue are for the most part positive (49%) or neutral (42%). The data also shows a balance of positive (11%), neutral (10%), and negative (10%) attitudes toward time as a solution. Articles are generally neutral (50%) or positive (42%) on the matter of establishing a fund. Solution frequency distributions clearly demonstrate a consensus for change. Generally I can conclude that the solutions indicators demonstrate a trend toward action.

Table 5.4

Cross Tabulations for Solutions versus Tone

Variables	Level	Tone *						Totals
		Negative		Neutral		Positive		
Time Fisher's Exact = 0.0000	No	(24)	7	(169)	49	(154)	44	(347)
	Yes	(10)	32	(10)	32	(11)	35	(31)
Fund Chi-Square = 0.7960	No	(22)	9	(111)	46	(108)	45	(241)
	Yes	(12)	9	(68)	50	(57)	42	(137)
Change Chi-Square = 0.0118	No	(11)	17	(34)	52	(20)	31	(65)
	Yes	(23)	7	(145)	46	(145)	46	(313)
States Chi-Square = 0.5540	No	(28)	9	(148)	49	(129)	42	(305)
	Yes	(6)	8	(31)	42	(36)	49	(73)

*Numbers in parentheses = frequencies; Numbers not in parentheses = percentages..

Solutions: *Telecommunications Policy*, 1986-1995

While politicians and interest groups worked to negotiate a universal service solution, academicians and government officials contributed to the “policy primeval soup” (Kingdon, 1995, 116-144). A review of *Telecommunications Policy*, the premier academic journal on communications policy, from 1986 through 1995 offers an interesting perspective on universal service alternatives (see **Appendix H – *Telecommunications Policy: Selected Articles 1986-1995***). Proposed alternatives vary according to the viewpoints of the publication’s authors, who were primarily from the academic community (see **Appendix I – *Telecommunications Policy 1986-1995, Universal Service: Issue Definitions and Solutions***) but included government and corporate officials.

Kingdon reports that politicians turn to the “researcher-analyst” for solutions, and as a result academic work “affects a general climate of ideas.” In this way innovative policy alternatives are generated that contribute to the possibility of an issue gaining status on the national policy agenda (Kingdon, 1995, 55). The objective in reviewing *Telecommunications Policy* (see **Table 5.5 – Telecommunications Policy, 1986-1995** on page 123) was to discover whether the policy problem of sustaining universal service under competitive conditions received increased attention from 1986 to 1995 by telecommunications policy scholars. While *Telecommunications Policy* published more than twice as many issues annually in 1995 as in 1986, the percentage of articles dealing with an aspect of universal service policy in the United States remained fairly constant at around 12%.

Of 15 relevant articles in *Telecommunications Policy* from 1986 to 1988 on universal service, eight analyzed policy in terms of efficiency and regulatory law. One article recommended that telecommunications policy revisions take technological change into account. The remaining three articles had a public interest perspective. Of these, one suggested that access to information technologies are at an acceptable level, another expressed concern about the gap between the information-rich and the information-poor, and the third predicted the impact of in-home computing technology on society. Other articles recommended expanding the role of the U.S. President in setting telecommunications policy, described problems related to deregulation in a global market, and summarized economic and technological issues related to telecommunications policy.

New attitudes toward telecommunications policy issues were more common during the Bush presidency, as were concepts of public interest solutions. The OTA issued a controversial report early in 1990, *Critical Connections: Communications for the Future*, condemning a lack of communications policy leadership. This was followed as described above in 1991 by the NTIA’s Infrastructure Report: *Telecommunications in the Information Age*.

Out of 15 relevant articles from 1989 to 1991, six suggested approaches to universal access. Of these, two addressed the problem of providing service to rural areas. Others argued that public concerns and social benefits must be factored in as policy evolves. With the exception of one article that stated there are few alternatives beyond price regulation and one article that advocated local competition as a solution, the remaining essays supported new models of

telecommunications services and rate setting. In addition, they recommended that the President develop strategic communications policy agenda, and they argued that the U.S. is falling behind in the global telecommunications market, an issue that was on the congressional agenda at the time.

Table 5.5

Telecommunications Policy, 1986-1995

	1986-88	1989-91	1992-95
Equity Access Issues	3	6	12
Efficiency & Teleco Regulatory Policy	8	6	6
Role of the President	1	1	
Technology & Telecommunications Services	1	1	4
Telecommunications Policy in general	2	1	5
TOTAL:	15	15	27
<i>Telecommunications Policy</i> articles 1986-1995	96	120	242
Annual Issues	12	16	36

From 1992 through 1995, the number of *Telecommunications Policy* issues published increased. During these years, 12 articles had as their topic some aspect of universal service policy reform. Five articles proposed that a revised policy must take the public interest into account. Four articles questioned whether universal service is economically sustainable or necessary, two of the four proposed close scrutiny of current subsidy programs, and several articles addressed the matter of providing services to rural customers. The remaining 14 articles concerned new approaches to regulation (five), discussed technology and network-based services (four), recommended a comprehensive rewrite of current policy (two), described historical claims for universal service (one), and, advanced the social implications of technology developments (one). A final article examined citizen participation in FCC deregulatory rulemaking and found that it was much less intense than participation by industry groups.

Although there is no way to relate the alternatives proposed in *Telecommunications Policy* directly to the final legislation, there is evidence that legislators were exposed to a rich “climate of ideas” that influenced policy outcomes. To some extent, the authorship of the reviewed articles demonstrates that the border between academia, industry, and the federal

telecommunications bureaucracy was permeable (see **Appendix I – Telecommunications Policy 1986-1995, Universal Service: Issue Definitions and Solutions**). In several instances, article authorship involved collaboration between two of the three sectors. In fact, Kingdon’s description of a policy community distributed both inside and outside of the federal government—government agencies, policy groups, higher education, self-employed consultants, and the business world—was confirmed in the case of universal service policy.

Most of the articles were written by members of the telecommunications issue networks, academics, and former government officials with second careers as academics (Hecl, 1978). Publishing in *Telecommunications Policy* during this time were:

- Alfred Sikes, Assistant Secretary for Communications and Information for the U.S. Department of Commerce in the mid-1980s and chairman of the FCC in the early 1990s;
- John Jaring, who served for a number of years as the FCC’s Chief Economist and as the Chief for its Office of Plans and Policy; and
- Manley Irwin, an FCC official in the early 1970s and later an economics professor at the University of New Hampshire.

In addition, between 1986 and 1992, Sikes testified or was cited 53 times during telecommunications policy hearings, and Lawrence Garfinkel, another *Telecommunications Policy* author and AT&T Vice President for International Affairs, testified once.

In other instances the work of *Telecommunications Policy* authors informed congressional deliberations. For instance, an article by Joseph Fuhr was cited in a hearing before the Subcommittee on Antitrust, Monopolies, and Business Rights that considered S.1822—the Communications Act of 1994 (Senate. Committee on the Judiciary, 103-1035. 20 Sep 1994). Jorge Reina Schement’s study of the disparities in telecommunications services between classes of citizens was quoted in the *Congressional Quarterly* (*Congressional Quarterly*, 14 May 1994, 38). Eli Noam, Professor of Finance and Economic at Columbia University, testified four times before congressional committees from 1994 to 1995. Indeed, there was ample evidence of a close association among the members of the policy community (academics, elected politicians, and government officials) who generated the telecommunications and universal service policy alternatives.

Telecommunications Policy articles dealing with universal service that had been concerned with economic efficiency and regulatory policy in the mid-1980s, turned in the early 1990s to the problem of sustaining universal service in a deregulated world. In brief, a number of new approaches to universal service solutions were proposed from 1986 through 1995. In the early 1990s, when crafting a legislative resolution became imperative, as predicted by Baumgartner and Jones, solutions took into account evolving technology and a new definition of universal service.

Conclusion: Solutions (Policy Alternatives)

Research Objective 3 **To discover if a problem that reaches the national agenda must have a solution (Kingdon and Baumgartner/Jones).**

Research Finding 3 **From 1986 to 1995 universal service policy proposals that received attention included solutions.**

Many solutions were proposed for the universal service problem from 1986 to 1995. The range of policy alternatives and the level of dissension during the negotiation process had little relationship to the solution-proposal process described by Kingdon. He writes, "... the bulk of the specialists do eventually see the world in similar ways, and approve or disapprove of similar approaches [solutions] to problems" (Kingdon, 1995, 133). Kingdon's conclusions regarding solutions do not adequately explain the way policy alternatives were reached in the universal service case. By insisting on the separateness of the three process streams—problem recognition, policy formation, and politics—and viewing solution generation entirely as an intellectual process, he fails to account for the interactivity and interdependencies between the streams and the political nature of the entire endeavor.

Baumgartner and Jones' description of the dual mobilization process based on the ideas of Downs provides a more relevant although still-incomplete model. As public interest in the information highway grew, the problem of universal service was redefined and transformed to include more than voice telephony. A new social problem was identified—information haves and have-nots—and public interest groups engaged in a Downsian mobilization of enthusiasm. Although they implied it, Baumgartner and Jones fail to take their analysis of the connection between problems and solutions one step further to reflect on the role values play in the process.

In summary, the solution indicators demonstrate that universal service policy alternatives changed between 1986 and 1995 (see **Figure 5.7 – Trend of Relevant Articles & Yes in Solution Indicators** on page 120). A deregulatory movement begun in the 1970s translated over a number of years into pressure to end regulation in the telecommunications sector. Technology and its benefits were promoted as solutions to a number of social and economic problems. However, they were solutions, as public interest advocates pointed out, for citizens living where telecommunications companies deliver services (more densely populated areas) or for persons with the wherewithal to pay the price. Moreover, universal service solutions were in most cases clearly motivated by the values of those proposing the solution.

Presidential Influence

Research Objective 4 **To establish whether presidential leadership can be decisive in influencing agenda-formation (Kingdon and Baumgartner/Jones).**

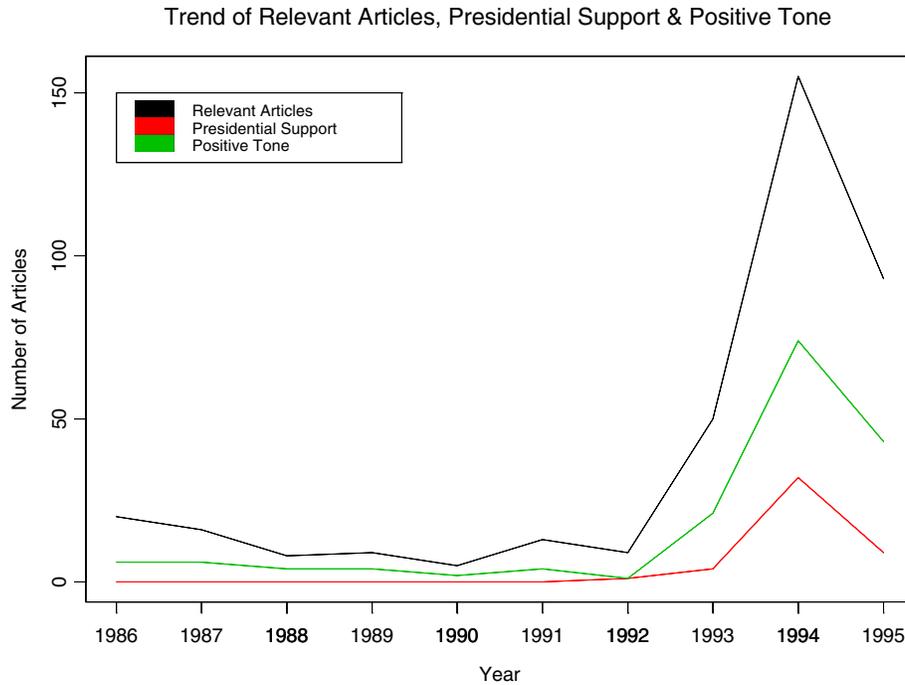
Kingdon states that “no single actor has quite the capability of the president to set agendas in a given policy area ...” (Kingdon, 1995, 23). Baumgartner and Jones consider presidential influence significant in influencing agenda-setting (Baumgartner and Jones, 1993, 241). While Kingdon goes on to qualify his statement by noting that many events can impinge on presidential agendas, Baumgartner and Jones offer little additional explanation or qualification.

In chapter four, political time was noted as a factor in the agenda-setting process. Within the ten-year interval from 1986 to 1995, Presidents Reagan, Bush, and Clinton governed under different circumstances. Although presidential involvement in agenda-setting can be critical, the economic well-being of the nation, the state of the world, the national mood, the partisan balance that affects the support the President enjoys in Congress are all significant contextual factors that to some extent determine presidential effectiveness.

This analysis of presidential support for universal service is based on media-coding data results. These indicate that it was not until 1992 that the media reported support or even interest by a U.S. President (in fact presidential candidate) for universal service (see **Figure 5.8 – Trend of Relevant Articles, Presidential Support & Positive Tone** on page 127). In fact as the graph indicates, support as recorded in national newspaper articles increased sharply in 1993 during Clinton and Gore’s first year in office and declined just as sharply in 1994 when it became

apparent the legislation would pass.

Figure 5.8



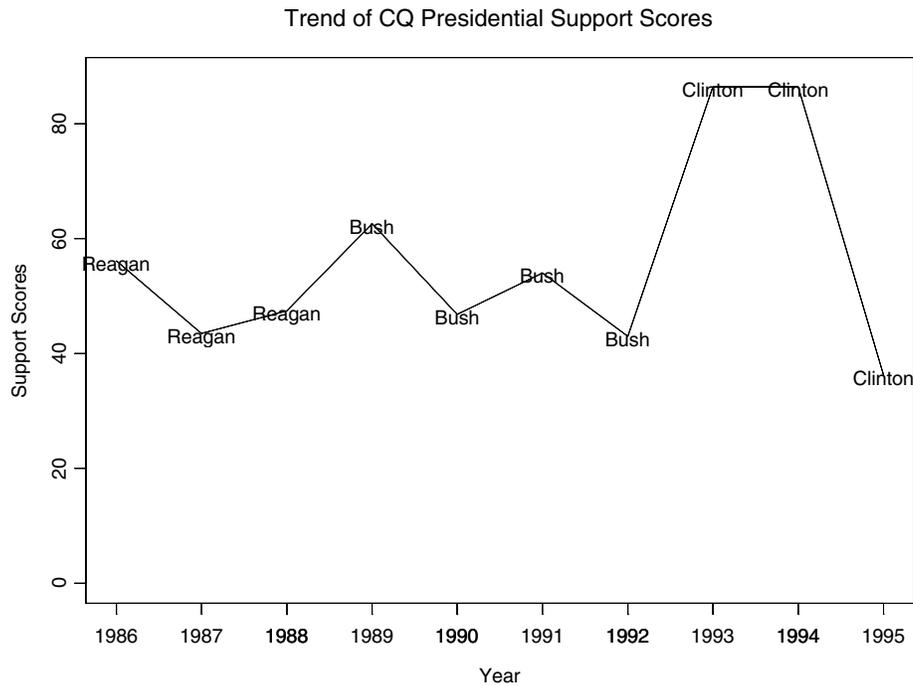
Over the longer term, I used presidential-position-taking to determine presidential interest in telecommunications policy in general from 1986 to 1995. Presidential-position-taking consists of the number of times *Congressional Quarterly (CQ)* records the president as taking a position on legislation prior to a roll call vote in Congress. Presidents cannot introduce legislation. Nevertheless, they are able to make their policy interests known in a number of ways, one of which is publicly expressing their preferences concerning pending legislation (Shull, 1997, 47-64). In addition, *CQ* presidential-support-scores related to congressional support for the president's position are included as an indicator of executive-congressional relations from 1986 to 1995 (see **Figure 5.9 -Trend of *CQ* Presidential Support Scores** on page 128).

President Reagan

Beginning with Gerald Ford in 1975, Presidents included regulatory reform as a major part of their agenda (Derthick and Quirk, 1985; Wilson, 1980). Ronald Reagan made a commitment regarding regulatory relief during his campaign for the Presidency. Soon after

assuming office, Reagan acted to change the regulatory system. In 1981, he issued an executive order (E.O. 12291) requiring all major rules agencies, namely those with annual budgets over \$100 million, to perform a regulatory impact analysis. In addition, he appointed a Task Force on Regulatory Relief chaired by Vice President Bush and named a number of people with an anti-regulatory bias to regulatory agency positions (Anderson, 1998; Rowland, 1982, 128-129).

Figure 5.9



Reagan’s anti-regulatory, pro-market agenda was frustrated to some extent by economic and political circumstances (Meiners and Yandle, 1989). By 1986 his success in Congress (*CQ* success score-56.1) had declined for the 5th consecutive year and in 1987 Reagan had the lowest success rate, 43.5%, of any President since *CQ* began its voting studies in 1953. In 1988, the final year of his two-term presidency, Reagan won only 47.4% of the roll call votes on which he took a stand. The Senate failed to cooperate even in minor actions in the telecommunications arena. In 1988 Reagan opposed legislation (H.R. 4992) that supported telephone services for the hearing-impaired, which subsequently passed.

In 1988 Senators Hollings (D-SC) and Inouye (D-HI) delayed the review of Reagan's nominees for FCC seats. According to an aide to the Democratic Commerce Committee, "The foot-dragging [was] aimed at preventing Reagan from perpetuating the current committee's deregulatory posture beyond his term" (*National Journal*, Apr 16 1988, 1037). The Reagan administration tried without success to phase out the Rural Electrification Administration's subsidized loans for small telecommunications companies (*Communications Daily*, 1988, 2). Likewise, Reagan's proposals to move control of communications policy to the FCC were resisted by Representative Dingell (D-MI) and Senator Hollings (D-SC), who opposed increasing the agency's oversight role (Cooper, 1985, 732-736; Kriz, 1988, 2431). Although telecommunications regulatory change continued during the Reagan years, it was as a result of the FCC's free market policies and court decisions rather than legislative initiatives or an executive-level strategy (Kriz, 1989, 1897).

President Bush

Likewise, Reagan's successor George Bush failed to set a coherent telecommunications policy agenda. Typical of the Bush administration was the announcement in 1988 that if Bush were elected, he would take a strong deregulatory stance. Meanwhile, Bush campaign rhetoric proposed that he would support communications services for rural citizens in order "to assure the growth and development of the rural economy" (*Communications Daily*, 1988, 2). In fact, Bush's term as President witnessed the greatest expansion of government regulation since the early 1970s. Bush's accommodating style (Collier, 1997, 231-259), combined with a tendency to say "yes" to Congress and then negotiate, resulted in new regulation in a number of policy areas (Rauch, 1991, 2902-2906).

According to the *CQ* support scores, Bush fared worse (63%) in 1989 than any first-year President elected during the post-war era. *CQ* attributes the low score to the fact that having been elected "with the vague charge to build on his predecessor's policies, Bush in his first year did not bring the kind of bold agenda and sense of a fresh start that usually makes Congress more compliant to a president's will" (*CQ Almanac*, 1989, 22-B). In 1990 Bush prevailed only 46.8% of the time with regard to Congressional support. Bush's support-score improved modestly in 1991 (54%) but then plunged in 1992 to 43%, the lowest on record. The only Bush-supported

telecommunications legislation, a bill proposed in 1991 to allow the RBOCs to manufacture telephone equipment (S.173), did not pass.

Although Bush did not address telecommunications policy explicitly, he did promote a supercomputing network initiative in 1989. Derivative of legislation introduced by Senator Gore (S.1067), the *Federal High Performance Computing Plan* called for increased federal spending on supercomputers over five years. A difficulty with the Bush initiative was its exclusive focus on supercomputing technology. The legislation included no apparent advantages for the average citizen (Dugan, Cheverie, and Souza, 1996, 140). This was despite publication in 1989 of the OTA report *High Performance Computing & Networking for Science* that predicted the network's impact on society, industry, and education. "Our observations to date emphasize the critical importance of advanced information technologies to research and development in the United States, the interconnection of these technologies into a national system and, as a result, the tighter coupling of policy choices regarding them, and the need for immediate coordinated action to bring into being an advanced information technology infrastructure to support U.S. research, engineering, and education" (OTA-BP-CIT-59, Sep. 1989, 1).

Arguments in Congress over the Bush supercomputing plan followed a pattern that anticipated the telecommunications debate in the mid-1990s and reflected a similar clash of values. Some legislators such as Representative Walgren (D-PA) urged support for legislation that would "lead to increased productivity of our industries" while others such as Representative Markey (D-MA) expressed concern that "this could create a society of haves and have-nots ..." (Cloud, 1989, 2698). Meanwhile, the leaders of the telecommunications industry, anticipating the commercial potential of expanded information services, were not supportive of what they perceived would be a government-operated network.

Ultimately the initiative was weakened by the Bush administration's insistence that the agencies involved—National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), and the Departments of Defense and Energy—find the money to implement the legislation by cutting their budgets elsewhere. During his tenure as President, there was no apparent commitment or clear sense of direction for telecommunications policy issues from Bush (Chapman, 1992). Frustration was expressed in 1988 and again in 1989, by articles published in *Telecommunications Policy* arguing that the U.S. President must play a

leadership role in setting telecommunications policy (Singh, 1988; Brotman, 1989).

President Clinton

The lack of a telecommunications policy plan at the executive-level came to an end in 1992 when presidential candidates Clinton-Gore made telecommunications policy reform a centerpiece of their campaign. It was an issue championed by Gore throughout his congressional career. Paul Light, writing about presidential agenda-setting, cites Congress as the most frequently mentioned source of domestic policy ideas (Light, 1991, 88). By choosing Gore, who had served in Congress since 1977 (U.S. House of Representatives, 1977-1985; U.S. Senate, 1985-1993), as a running mate, Clinton was able to take advantage of Gore's 16 years of experience in telecommunications policy. As Clinton stated when he announced his vice presidential decision: "He [Senator Al Gore, Jr.] is perhaps America's leading proponent of the development of new technologies like fiber optics and biotechnology to create high wage jobs to move into the twenty-first century" (Clinton and Gore, 1992, 200).

While in Congress, Gore had been a member of both the House and the Senate Science and Technology committees. In those capacities, he was instrumental in the passage of internet-enabling legislation. From the 99th through the 104th Congress, Senator Gore actively participated in telecommunications policy development and initiated legislation in each Congress from 1986 through 1992 (see **Appendix E – Proposed Federal Telecommunications Legislation, 1986-1995**). He initially promoted a supercomputing initiative during the Reagan administration and, as described earlier, the Bush administration's *Federal High Performance Computing Plan* reflected legislation introduced by Gore (Cloud, 1989, 2698).

From the early 1990s, Gore's focus was not technology per se but on technology as a vehicle to stimulate economic development to promote U.S. competitiveness in the world market, and to establish opportunities for technology research. After the 1992 election, the Clinton-Gore administration continued to promote a revitalized technology program. A review of 1992-1995 policy statements listed on the White House publications web site reveals that 9 out of 32 documents address some aspect of telecommunications policy. Indeed, the Clinton administration engaged in a sustained campaign to keep telecommunications policy issues and universal service on the public agenda (Cohen, 1995, 102). Policy papers, executive actions, and

public addresses on the topic of telecommunications investment and regulatory reform were all tactics employed by Clinton and Gore to encourage development of a national information infrastructure and “to preserve and advance universal service for all Americans across all sectors of society.” (Office of the Vice President. *Telecommunications Policy Reform*. 11 Jan. 1994). Available from: <http://www.pub.whitehouse.gov/uri>

Of particular importance was a speech Vice President Gore delivered before the Television Academy at UCLA on January 11, 1994. He promised a legislative package based on principles that encourage private investment, protect competition, provide open access to the network, take action to avoid creating a society of information “haves” and “have-nots,” and encourage flexible and responsive governmental action. In the UCLA speech, Gore also affirmed support for universal service, stating that “Our basic goal is simple: There will be universal service; that definition will evolve as technology and the infrastructure advance; and the FCC will get the job done” (Gore, 1994, 229-233).

With regard to the *CQ* support scores, in 1993 and 1994 Bill Clinton’s success rate was among the highest ever recorded (86.4%), and in 1995, just before the legislation passed, they were among the lowest (36.2%). His high success rate in 1993 and 1994 is attributed to the fact that he was working with a Democratic Congress. As suggested in chapter four, however, the *CQ* support-scores did not prove to be a meaningful measure of presidential effectiveness in the universal service case. Despite high scores in 1994, Congress failed to act on major telecommunications legislation supported by Clinton; yet in 1995, with a record-low support-score and the shift to a Republican controlled Congress, massive telecommunication legislation supported by Clinton (S.652) passed.

Following the defeat of his health care initiative, Clinton distanced himself from Congress and began to appeal directly to the American public. Clinton’s commitment to universal access as stated in his 1994 State of the Union address is a case-in-point. Intended by the founding fathers as a response to the need for the chief executive to provide an “inclusive view” of a nation divided into states, the State of the Union address has become a vehicle for communicating presidential legislative priorities (Fields, 176). In the view of policy scholars, reference to an issue within a State of the Union address establishes its importance on the President’s and the public’s problem agenda (Cohen, 1995; Kingdon, 188; Light, 160; Grossman

and Kumar, 239).

From 1986 to 1995, Clinton was the only president to refer to universal service in a State of the Union address:

And the Vice President is right. We must work with the private sector to connect every classroom, every clinic, every library, every hospital in America into a national information highway by the year 2000. Think of it, instant access. The information will increase productivity, will help educate our children. It will provide better medical care. It will create jobs. And I call on the Congress to pass legislation to establish that information superhighway this year (State of the Union Address, 1994).

The reference occurs early in the speech and uses the information highway metaphor to describe the Clinton-Gore vision of ubiquitous access to broadband telecommunications services. The universal service image “information superhighway” is tactically placed directly preceding a sentence urging job creation, fair lending, fair housing, and enforcement of “all civil rights laws” so that every citizen has an opportunity to share in America’s wealth.

One is reminded of Deborah Stone’s notion that metaphors “are important devices for strategic representation in policy analysis. On the surface, they simply draw a comparison between one thing and another, but in a more subtle way they usually imply a whole narrative story and a prescription for action” (Stone, 1997, 148). In his address Clinton challenges Congress to act responsibly and pass the legislation. Only then he suggests, will everyone be able to travel on the superhighway to a more equitable society in terms of education, health, and employment. In brief, President Clinton in his 1994 State of the Union address redefined and emphasized the issue of universal service as a matter of broad public interest.

Conclusion: Presidential Influence

Research Objective 4

To establish whether presidential leadership can be decisive in influencing agenda-formation (Kingdon and Baumgartner/Jones).

Research Finding 4

Presidential influence can be decisive in agenda-setting.

Clinton-Gore’s political timing and strategy were decisive factors in determining the

success of the telecommunications policy revision. As explained above, Clinton and Gore placed telecommunications policy accompanied by a universal service mandate high on their agenda. They promoted it as an efficiency issue to the business community and as an equity issue to public interest and nonprofit groups. Clinton was a “preemptive leader” who did not seek to establish or uphold any political orthodoxy: “[preemptive leaders] seek rather to defy the received political categories with hybrid alternatives that draw freely from all sides of the issues of the day” (Skowronek, 1998, 168). Clinton-Gore’s approach to universal service promised benefits not only for powerful industry groups (deregulation and an expanded market for network equipment, computer hardware/software) but also for all citizens (expanded access to broadband network and information services).

There were other elements that contributed to Clinton’s success beyond his presidential status. Perhaps most significant was the timing of the Clinton presidency:

Periods are marked by the rise to power of new political coalitions, one of which comes to exert a dominant influence over the federal government. The dominant coalition operates the federal government and perpetuates its position through the development of a distinct set of institutional arrangements and approaches to public policy questions. Once established coalition interests have an enervating effect on the governing capacities of these political-institutional regimes (Skowronek, 1998, 126).

While George Bush was bound to a political regime established by Reagan, Clinton began his term of office free from such restraints. Timing as it relates to the technology was also critical. A situation was already in place in 1993 that was taking the United States toward a ubiquitous-network solution. By the mid-1990s the internet was robust and becoming pervasive, thereby making enactment of new telecommunications legislation viable.

In conclusion, the presidential indicator (see **Figure 5.8 – Trend of Relevant Articles, Presidential Support & Positive Tone** on page 127) shows that support from President Clinton occurred in tandem with significant legislative attention (see **Figure 5.4 – Trend of Legislation and Hearings: Universal Service** on page 106). Both took place just prior to successful enactment of an expansive new universal service policy. Nevertheless, although Clinton-Gore’s support for universal service was critical, their success with the 1996 Telecommunications Act

was also dependent on a number of factors beyond presidential status.

Conclusion: Similarities

Graphical presentations of the media article indicators (see page 136) used to trace similarities of the Kingdon and Baumgartner/Jones' theories as measured against the trend of proposed congressional legislation and hearings establish that congruent patterns of attention to the universal service issue existed from 1986 to 1995. Although attention to universal service began to increase in Congress in the mid-1990s the situation was analogous to the "softening up" period described by Kingdon. "You have to create the right climate to get people to focus on the issue and face the issue. The lead time for that sort of thing is two to six years" (Kingdon, 1995, 129). Regulatory law remained the prevailing definition and image for universal service throughout the decade. In 1993 with strong presidential support, however, new definitions and images of universal service proliferated, as did solutions. Most people involved in the debate throughout the decade were in accord that change or a new policy alternative was required.

With the exception of their agreement on the importance of presidential involvement in setting the policy agenda, what appeared to be similarities between Kingdon and Baumgartner/Jones' theories regarding—issue definition, policy images, and solutions—are not similar upon closer look. Both the scope of the agenda-formation process and the question of whether there is independence or interdependence between problems, policies, and politics are the major points of discrepancy. Nevertheless, both theories have strengths and explanatory value that are supported by the indicators. Each theory, however, emphasizes only part of the agenda-setting process.

In particular my results were not congruent with Kingdon's three streams' approach. In the telecommunications/universal service case I found that the problem, policy, and political streams were interdependent, intensely so from 1993 to 1995 as various groups promoted preferred definitions, policy images, and solutions. Policy entrepreneurs from outside the federal government played a role in defining and assigning images to the universal service problem in addition to generating policy alternatives.

Many of these people were not engaged in an intellectual debate as described by Kingdon. Representatives from the telecommunications policy subsystem (state regulators,

consumer and citizen interest advocates) often working with former elected or appointed government officials pursued various commercial and ideological agendas. Although the

Figure 5.3

Figure 5.5

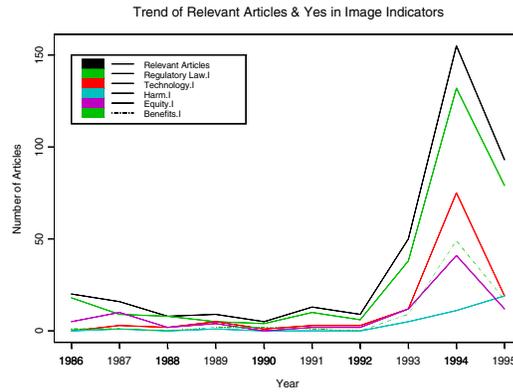
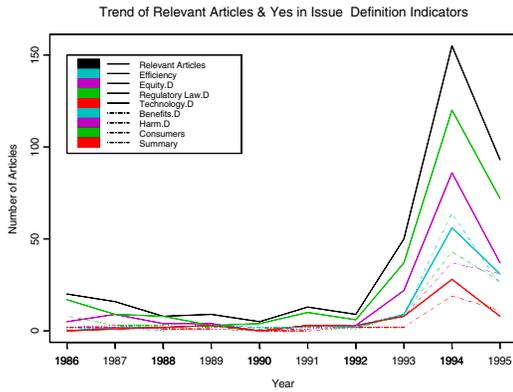


Figure 5.7

Figure 5.8

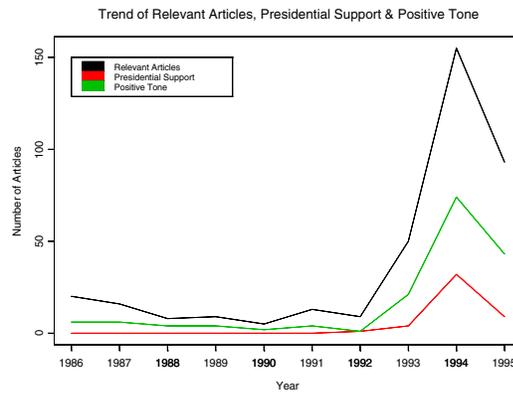
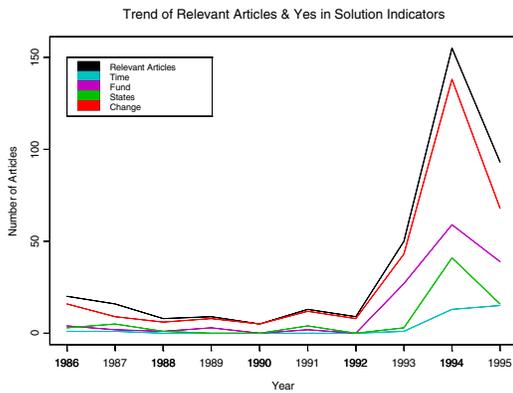
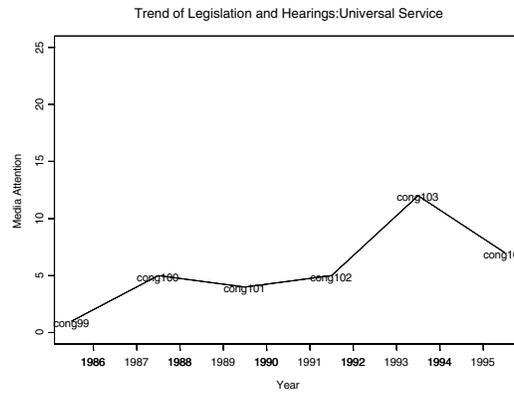


Figure 5.4



discussion may have been intellectual, it was also in most cases political. In other words, as described by Baumgartner and Jones, many if not most people involved in the policy process were “seeking to mobilize new groups [and political elites] through non-contradictory argumentation in favor of their view of the policy” (Baumgartner and Jones, 1993, 239).

Baumgartner and Jones’ view presents agenda-setting in part as a beyond the Beltway phenomenon therefore their analysis of the interactions of government officials is less detailed than Kingdon’s. Definition, image, and solution media indicators support Baumgartner and Jones’ conclusions that the trend in decision agenda-access follows trends in new issue definitions and policy images. By linking the universal service problem with new definitions and images, interest in the issue expanded to interest groups not previously active in telecommunications policy matters.

With regard to the fourth similarity—the importance of presidential support—both theories maintain that “no other single actor can focus attention as clearly, or change the motivations of such a great number of other actors as the President” (Baumgartner and Jones, 1993, 241). Or as stated by Kingdon, “no other single actor in the political system has quite the capability to set agendas in given policy areas for all who deal with those policies” (Kingdon, 1995, 23). I would qualify these statements, as Kingdon does, by observing that in the universal service case from 1986 to 1995 presidential effectiveness was limited or enhanced to a great degree by factors such as political time, national opinion, economic conditions, and the state-of-technology.

In short, Kingdon provides an in-depth view of the complexity of agenda-formation at the federal level. As he predicts “windows of opportunity” and academic and research consultants (“hidden clusters of participants”) were significant factors in the universal service case. Baumgartner and Jones’ agenda-setting model regarding the significance of policy images or the artful definition (presentation) of an issue is also relevant. Clinton-Gore’s expanded universal service definition, and images such as the information superhighway and information-haves and have-nots come to mind. In chapter seven I use salient components from both theories to suggest elements for a new integrative model of agenda-setting that incorporates the strengths of both Kingdon and Baumgartner/Jones’ theories.

Chapter 6

ANALYSIS: DIFFERENCES

Although similarities between the Kingdon and Baumgartner/Jones' theories are subtle, the differences between the two theories are substantive and obvious at first reading. For example, Kingdon suggests that agenda-setting is determined by political cycles coupled with random events (such as crises or official indicators) and by the maneuvering of policy entrepreneurs. Baumgartner and Jones propose a "punctuated equilibrium" model. In their view, the construction and destruction of policy images and subsystems produces a lurching pattern in which intervals of stability alternate with periods of major change. Therefore Baumgartner and Jones find "new issue definitions are more important sources of change than the action-reaction model of cycles" (Baumgartner and Jones, 245, 1993).

Other differences between the theories have to do with the influence of interest groups, the media, and public opinion on the policy-making process. Kingdon assigns the role of interest groups to "negative blocking" rather than the "positive promotion" of policy agenda items while Baumgartner and Jones state that "interest groups play an important role in formulating questions, affecting public opinion, and defining the terms of the debate" (Baumgartner and Jones, 1993, 190). Likewise Baumgartner and Jones emphasize media attention as a driver of policy change as opposed to Kingdon who concludes "the media report rather than having an independent effect on government agendas" (Kingdon, 1995, 59). Finally, Kingdon proposes that public opinion constrains rather than directs government action and Baumgartner and Jones argue that public opinion is one of many venues that influence policy-making.

As described previously, these differences are most likely the consequence of different theoretical points-of-departure. Kingdon cites Cohen, March, and Olsen's "garbage can model" of organizations as the basis for his work (Cohen, March, and Olsen, 1972). The researchers premised their study of organizational decision-making on academic institutions, or "organized anarchies." Kingdon applies this phrase to the federal government. In such an environment decision-making is characterized by a closed system, problematic preferences, unclear technology, and fluid participation.

The garbage can model as translated by Kingdon offers a somewhat pessimistic, exclusive, and indeterminate view of agenda-setting. As Cohen, March and Olsen state: “It is clear that the garbage can model can process but does not resolve problems well. But it does enable choices to be made and problems resolved even when the organization is plagued with goal ambiguity and conflict, poorly understood problems that wander in and out of the system, with a variable environment, and with decision makers who may have other things on their mind” (Cohen, March, and Olsen, 1972, 16). These limitations transfer to Kingdon’s theory, which fails to account for aspects of the policy-making system, including the interdependence of problems, solutions, and politics; and the opportunities for multiple points of entry into the policy process.

The origins of Baumgartner and Jones’ theory are more eclectic and integrate several theoretical perspectives. Baumgartner and Jones cite three sources:

- the agenda-setting approach, (Cobb and Elder, 1983; Cobb, Ross and Ross, 1976; Downs, 1972; Elder and Cobb, 1983; Kingdon’s work, originally published in 1984; Nelson, 1984; Schattschneider, 1935, 1960, 1969; Stone, 1988, 1989);
- the analysis of policy subsystems (Heclo, 1978; McFarland, 1987; Sabatier, 1987, 1988, 1991; Walker, 1983, 1991); and
- social choice theory (Riker, 1982, 1986) as the foundation for their work.

Drawing on the agenda-setting literature, Baumgartner and Jones emphasize the power of new ideas to mobilize outsiders and to disrupt stable situations maintained by policy subsystems. Unlike Kingdon, they include influences from outside the federal government and explain how these lead to agenda-access and policy change. With regard to policy subsystem behavior, Baumgartner and Jones analyze the link between issue definition and political mobilization. In addition they borrow from social choice theory the view that “equilibria are rare in politics” and that a stable situation may always be destabilized through the introduction of conflict (Baumgartner and Jones, 1993, 13-14).

Conceptually Kingdon and Baumgartner/Jones’ studies are different. Both offer insights into the agenda-formation process, yet neither provides a complete explanation for the universal service issue case. In chapter six I examine four key variables, or points of difference, between Kingdon and Baumgartner/Jones as they are revealed in the universal service case.

Policy Cycles or Punctuated Equilibrium

Research Objective 5 **To determine whether American politics produces long periods of stability interrupted by short periods of dramatic change (Baumgartner and Jones).**

Baumgartner and Jones introduce their thesis as follows: “We propose a punctuated equilibrium model of policy change in American politics, based on the emergence and the recession of policy issues from the public agenda” (Baumgartner and Jones, 1993, 1). “Punctuated equilibria” as a change model was introduced by paleontologists Niles Eldredge and Stephen Gould in an essay that contrasted “phyletic gradualism” (traditional approaches to classification of the fossil record) with allopatric theory. Eldredge and Gould proposed that “the history of evolution is not one of stately unfolding, but a story of homeostatic equilibria, disturbed only rarely, (i.e., rather often in the fullness of time) by rapid and episodic events of speciation” (Eldredge and Gould, 1972, 84). The punctuated equilibrium paradigm has been applied in a number of disciplines; for instance, it has served as an explanation for organizational system development and change (Gersick, 1991).

Baumgartner and Jones offer no satisfactory criteria with regard to their use of punctuated equilibrium, and indeed they equivocate as to the term’s meaning in a footnote: “The precise definition of an equilibrium is less important for the purposes of this book than are questions of stability and change. We have adopted the terminology of punctuated equilibrium because it evokes the images of stability interrupted by major alterations to a system. However, systems may be stable without necessarily being in equilibrium so we do not wish to assert that all periods of stability are signs of equilibrium; they could simply be due to a lack of outside disturbances ...” (Baumgartner and Jones, 1993, 18-19). Like Kingdon’s “policy primeval soup,” there is a lack of precision in the metaphor “punctuated equilibria,” and, although a suggestive image it has little explanatory value. Exactly how, one wants to ask, sweeping must change be in order to qualify as an example of a change or punctuation in equilibria? In the case of the 1996 Telecommunications Act, a unique set of conditions including incremental contextual change contributed over several decades to the emergence of universal service as a policy issue.

As described in chapters three and five, telecommunications regulation evolved over a period of many years from a monopolistic to a deregulated competitive environment. The fundamental question was the scope of competition. The answer was determined by the courts in

an incremental fashion (see **Table 3.2 – Trend toward Competition in the Telecommunications Industry, 1956-1980** on page 46). Significant change began with the Above 890 Decision in 1959 and proceeded through the 1980 *Execunet II* and *III* decisions that opened long distance service to competition (Horwitz, 1989, 233-235; Kehoe, 1978, 33; Derthick and Quirk, 1985, 193; Wiley, 1984). The implications of the *Execunet* rulings, in particular, were far-reaching. “Microwave private lines, computer-based terminal equipment, and domestic satellite delivery [all now sanctioned] created not only new services, but new ways of delivering older services that had been the sole province of the traditional common carriers” (Horwitz, 1989, 234).

The second phase in the deregulatory process involved an even more disruptive adjustment. The January 1982 agreement between AT&T and the U.S. government resulted in the divestment by AT&T of 22 local operating companies, comprising half of AT&T’s assets. In fact, the telecommunications domain has not been stable for at least 30 years. Although the law remained unchanged (Communications Act of 1934), since the late 1950s we have seen an unabated trend toward increased competition, technological innovation, corporate mergers, new service offerings, and FCC rulings.

The signing of the Telecommunications Act of 1996 validated decisions that were made in other venues, but the Act did not cause abrupt change because the system had not been in a state of equilibrium for a long time. Legally the transition from monopoly to competition was abrupt. In that sense one may make an argument for punctuated change relative to telecommunications policy in general, but the punctuated equilibrium model does not apply completely in terms of universal service policy. Subsidized telecommunications services existed prior to 1996, and the 1996 Act assures that they will continue to exist for the foreseeable future. Moreover, although one may argue that broadband telecommunications services of the 21st century will be very different from basic telephony of the 20th century, like the plain-old telephone service (POTS) of the earlier era, policy is being driven by technology and the telecommunications industry.

Punctuated Equilibrium: Universal Service Indicators

From 1986 to 1995, as shown in **Figure 5.4 – Trend of Legislation and Hearings: Universal Service** (see page 106), universal service policy did not emerge and recede from the federal agenda suddenly. Rather, congressional attention to universal service increased gradually from 1986 to 1993/94 and then declined after the first session of the 104th Congress. Media attention, however, did not rise until 1992, peaked sharply in 1994, and then declined. Whether these patterns constitute a punctuated equilibrium change, particularly in light of Baumgartner and Jones' uncertain definition is a matter of perspective.

In 1999 Reed Hundt, who served as Chairman of the FCC from 1993 to 1997 and presided over the first year of the implementation of the Telecommunications Act of 1996, looked back on this time as a period of dramatic change. In a speech presented at the *Networking '99* conference, Hundt characterized his tenure at the FCC as follows:

... we completely reversed the monopoly era in communications and instead embraced a period of competition and innovation and experimentation such as no other industry sector has ever seen in any other economy in the world. And better than that, somehow in this time period, the nation began the largest single national program ever to better education from K through 12—and that is the Snowe-Rockefeller Amendment to the 1996 Telecommunications Act, which at this very moment is causing \$4 billion in new money to be spent to put the Internet in every classroom in the country. In 1994 we had 9 percent online. Today it is 54 percent (Hundt, 1999, 15).

While the “we” in Hundt’s speech refers to members of the Clinton administration, the real leaders of the deregulatory movement from the 1950s onward were academic economists. These people produced theory supported by empirical evidence that attacked price and entry regulation and promoted a pro-competitive business environment (Derthick and Quirk, 1985; Kopp, 1997; Mucciaroni, 1991; Wilson, 1980). “Regulatory reform” or deregulation was a powerful image that converged over time (the phrase first appeared in the *New York Times* index in 1976) with technological, economic, and political trends.

Derthick and Quirk point out the ambiguity of deregulation as a political symbol: “It could be used to affirm the traditional values of competition, free enterprise, and limited government, which were still widely held among conservatives and were enjoying a modest recovery among liberals. In a more polemical fashion, it expressed a deep cynicism about

government institutions that was central to the ethos of consumerism and the public at large and was injecting a new ambivalence into the policy positions of liberals” (Derthick and Quirk, 1985, 52-53). Punctuated equilibrium as a model for the telecommunications domain change in the 1990s fails to account satisfactorily for the complex ways that the policy process was influenced by politics, government agencies such as the Judiciary and the FCC, foundations and think tanks, and the telecommunications’ policy community (Kopp, 1997, 101).

From the perspective of this study, change in telecommunications and universal service policy was inevitable. Although it did occur incrementally, there were also times of negative and positive feedback that reinforced the pattern of mobilization and countermobilization described by Baumgartner and Jones:

Issues can hit the agenda on a wave of positive publicity, or they can be raised in an environment of bad news. These are two different mechanisms of agenda access that have different policy consequences. High attention and positive tone [Downsian mobilization] can lead to the creation of powerful institutions of government given broad jurisdiction over the policy, while high attention and negative tone [Schattschneider mobilization] often lead to subsystem dissolution (Baumgartner and Jones, 1993, 100).

For instance, in several decades small, less-public change like the Carterfone decision were followed by major change such as the MFJ in 1982. The 1996 legislation that replaced the Communications Act of 1934 served to ratify a series of legal decisions made in response to technological innovation and new options for telecommunications services that had already taken place. Whether this is punctuated equilibrium or merely an era coming to an end as policy caught up to the technology is difficult to determine without more specific criteria for the punctuated change model.

The pattern of incremental change continues to date (March 2000). Since February 1996, when the legislation passed, it has taken the FCC almost four years to adopt “a new universal service support mechanism for the Nation’s largest local telephone companies. Rules developed in 1999 ensure that customers throughout the Nation, and particularly in high-cost and rural areas, will receive telephone service at affordable and comparable rates” (FCC, 1999). Likewise, almost four years after the 1996 legislation, the courts ruling against two of the RBOC’s, upheld the FCC’s plan for connecting schools and public libraries to the Internet (Chen, 1999). In an

opinion contrary to Hundt's images of dramatic change, studies published in 1999 by the Consumer Federation of America and the Consumers Union state that "the sad unintended consequence of the Telcom Act is the growth of a costly division between telecommunications 'haves' and 'have-nots.'" These market developments threaten to destroy the very goal many of the Act's supporters claimed to embrace; the opportunity to harness enormous technological advancements for the social economic benefit of all citizens" (Cooper and Kimmelman, 1999; Cardella, 1999).

The Telecommunications Act contains 100 pages of intricate provisions that require the development of equally complex policy. Universal service financing for rural locations and internet access for schools are just two examples. The 1996 Act replaced industry regulation with ambiguous regulation based on both equity and efficiency values. A Downsian mobilization of enthusiasm for the "information superhighway" and equal access (expanded universal service policy) occurred simultaneously with a Schattschneider anti-regulatory mobilization that produced pressure for regulatory reform (Derthick and Quirk, 1985; Kingdon, 1995, 10). The institutional structures that shaped telecommunications policy from the 1930s (FCC, courts, and interest and industry groups) have not been broken up. From 1995 through 1999, the FCC regulated in support of public interest goals and mediated inter-industry altercations; the courts continued to adjudicate, telecommunications service providers resisted changes that lowered their rate of return, and consumer, citizen advocacy, and industry interest groups lobbied to influence policy (Clausing, 14 Feb 1999).

Punctuated Equilibrium Model: An Empirical Test

Michael Howlett tested Baumgartner and Jones' punctuated equilibrium model using time series data compiled on the daily mention of nuclear energy and acid rain in the Canadian House of Commons and Canadian daily newspapers from 1977 to 1992. Howlett contends that since Baumgartner and Jones maintain the punctuated equilibrium model is chaotic, then an analysis of issue mentions should "produce an extremely irregular pattern approaching a 'white noise' [defined by Howlett as] a random pattern of appearance and disappearance" (Howlett, 1997, 24). Using a variety of statistical methods, Howlett's analysis reveals cyclical activity rather than a "white noise" pattern.

Howlett concludes that future research using the punctuated equilibrium model needs to take into account quantitative as well as qualitative aspects of the analysis. In addition, although Baumgartner and Jones support their theory with an assortment of data and charts, Howlett suggests that their results were not well integrated into their conclusions. According to Howlett, the data need to be used to decide whether or not regular cyclical mention of an issue occurs as opposed to what he describes as Baumgartner and Jones' hypothetical discussion of the relationship between "the public and governmental agendas" (Howlett, 1997, 24). In concluding his analysis of the punctuated equilibria model as proposed by Baumgartner and Jones, Howlett states that the work of John Kingdon, "the idea that institutionalized and relatively regular political events can drive policy cycles" deserves further study as an appropriate model for agenda-setting (Howlett, 1997, 28).

Political Cycles

Baumgartner and Jones state "the evidence presented in our book suggests some support for a cyclical view of politics" (Baumgartner and Jones, 1993, 244). At the same time they insist, "we cannot subscribe to cycle theories of politics because we do not see links to political motivations and structures that would imply cycling" (Baumgartner and Jones, 1993, 244). Baumgartner and Jones are emphatic that the pattern they observed (based on their study of policy issues over a 90-year period) is punctuated equilibria, not cycles and argue that different institutions and policy subsystems created as a result of new issue definitions preclude the possibility of cycles.

"Predictable windows" or to use Howlett's phrase "institutionalized and relatively regular political events" are explicitly central to Kingdon's theory and related to his "political stream" metaphor. Kingdon describes "swings in national mood," interest group support or opposition that often occur with some regularity as having important policy consequences. In addition, he points out that many of the formal mechanisms of government (such as the budget process, elections, State of the Union addresses, regular reports, and agency appropriations) occur on a cycle and influence agenda-formation. Cycles offer policy entrepreneurs an agenda-setting opportunity, (such as Roosevelt's regulatory legislation of the 1930s or Clinton-Gore's advocacy

of the Telecommunications Act of 1996), and serve as the impetus for an issue to rise to high agenda status (Kingdon, 1995, 145-164).

Conclusion: Punctuated Equilibria or Cycles

Research Objective 5 **To determine whether American politics produces long periods of stability interrupted by short periods of dramatic change (Baumgartner and Jones).**

Research Finding 5 **Dramatic policy change in the telecommunications/universal service case was the result of incremental adjustments over several decades, advances in technology, an electoral cycle, a governing cycle, and a business reform (deregulatory) cycle. Criteria for the punctuated equilibria model are flexible enough so that it may or may not be applied to the universal service case.**

An electoral cycle is frequently linked to a reform movement such as deregulation (Derthick and Quirk, 1985, 53-56). Political and policy cycles several generations apart have marked similarities despite the fact that each involves a “fresh definition of political issues.” In advocating the punctuated equilibria model, Baumgartner and Jones make a strong statement against the dynamic equilibrium model indicated by cycle theories. Although beyond the scope of this dissertation, it is incumbent to note that many political scientists and historians have made persuasive arguments for the influence of cycles albeit related to a more narrow view of policy change than Baumgartner and Jones panoramic perspective. These include business-control reform cycles, electoral cycles, governing cycles, and public action cycles, all of which are incorporated into the Baumgartner and Jones analysis and have relevance to the universal service case (Downs, 1972; Dodd, 1994; Kingdon, 1995; McFarland, 1991; Resnick and Thomas, 1990; Schlesinger, 1986; Skowronek, 1998; Vogel, 1989).

Interest Groups

Research Objective 6 **To examine if interest groups play an important role in determining policy images and in fact often define the terms of the debate (Baumgartner and Jones).**

Baumgartner and Leech point out in a 1999 publication that how one defines interest groups has implications for one's findings (Baumgartner and Leech, 1999, 30). Since a wide-range of interest groups were involved in the universal service case, I use Robert Salisbury's inclusive definition: "[O]ur scope must include every active unit, from the isolated individual to the most complex coalition of organizations ... that engages in interest-based activity relative to the process of public policy making ... Indeed, it seems clear to me that our [political science scholars] research heretofore has suffered more from omissions than from too expansive a notion of what to include" (Salisbury, 1994, 17). Because the topic of this dissertation is not interest groups per se, I will limit the discussion to major groups involved in universal policy discussions from 1986 to 1995.

Kingdon characterizes interest groups as "business and industry, professional, labor, public interest groups" as well as "governmental officials as lobbyists" (Kingdon, 1995, 47). He qualifies the government officials' category by explaining that he means state and city representatives (persons outside the federal government). Kingdon points out that group mobilization through letter-writing campaigns and lobbying brings issues to the attention of federal officials. Nevertheless he insists that: "Rather than structuring a governmental agenda, interest groups often try to insert their preferred alternatives into a discussion once the agenda is already set by some other process or participant" (Kingdon, 1995, 67). As noted in chapters two and four, Kingdon's work was based on case studies of policy-making in the areas of health and transportation. Therefore, much of his perspective on interest groups is shaped by the situational characteristics of these policy areas, for instance the reaction of the regulated truckers and the teamsters to trucking deregulation, or the resistance of health-care providers to new health-insurance programs (Kingdon, 1995, 49).

Baumgartner and Jones describe interest groups but do not define the term (Baumgartner and Jones, 1993, 176). The basis for their description appears to be the work of Jack Walker. In Walker's final book, prepared for publication after his death by Baumgartner and colleagues, the study of interest groups is restricted to "functioning organizations in the United States that are open to membership and concerned with some aspects of public policy at the national level" (Walker, 1991, 4). As the foundation for their analysis, Baumgartner and Jones use Walker's 1985 survey of lobbying activity in Washington, D.C., in addition to indicators gathered from an

analysis of changes in environmental interest group membership and resources. Frequent references to Walker's work suggest that Baumgartner and Jones emphasis is on corporate, nonprofit, and citizen-membership groups although included by definition in the Baumgartner and Jones model are members of advocacy coalitions (relevant government agencies, congressional committees, industry groups, research institutes, journalists) (Sabatier, 1993, 25).

The "mobilization of bias," or "how interests are organized and mobilized for political action," is a primary factor of Baumgartner and Jones' theory (Baumgartner and Jones, 1993, 175). They document the growing number and diversity of interest groups, which they speculate is because of a greater interdependence among areas of the economy (Baumgartner and Jones, 1993, 176-178). Unlike Kingdon, who considers the creation of policy alternatives as separate from problem definition, Baumgartner and Jones place issue definition and the "structuring of policy choices" within the mobilization and policy-debate process.

Preliminary discussion is limited to the interest group categories included in the theories of Kingdon and Baumgartner/Jones: business and industry groups; and nonprofit or "citizen" advocacy groups. It is not possible to prove causality or even the full extent of interest group impact on the telecommunications policy process. Nevertheless, the extent of interest group influence is explored through:

- A review of selected interest group strategies, with a focus on the RBOCs (including a comparison of growth in selected RBOC political action committee (PAC) contributions from 1993 to 1995), the Telecommunications Policy Roundtable (TPR), and the Benton Foundation;
- A profile of responses to the NTIA 1990 call for comments on telecommunications issues and National Information Infrastructure (NII) stakeholders as identified by a 1995 background study.

The goal is to describe through example how interest groups participated in the telecommunications revision and universal service agenda-formation process. In addition, I wanted to discover whether interest groups contributed preferred policy alternatives after the agenda was set, as suggested by Kingdon. The alternative as proposed by Baumgartner and Jones, suggests that interest groups play an important role in the policy process, "formulating questions, affecting public opinion, and defining the terms of the debate" (Baumgartner and Jones, 1993, 190).

Private Interest Groups

From 1934 to the present, industry groups have worked to influence communications policy. For decades this activity involved developing personal relationships with lawmakers and testifying at congressional hearings. For instance, during the 1934 Committee on Interstate and Foreign Commerce deliberations on the establishment of the FCC, Frank Gifford, AT&T president, advocated monopoly status for AT&T as the primary provider of communications services. “Even those members of the committee, who have had no occasion to reflect upon the matter, will readily perceive that this unity of ownership of companies in the Bell system for establishing a Nationwide system has been indispensable, if the United States was to have the telephone service it has had in the past and has today” (U.S. House Committee, *Regulation of Interstate and Foreign Communications*, 198). At the same hearings Dr. David Friday represented a different perspective on behalf of the Independent Telephone Association: “We all desire progress for the future, but progress involves change; and it is fundamental that competition is the principle of change in the industrial framework” (U.S. House Committee, *Regulation of Interstate and Foreign Communications*, 268).

In recent years, as technologies converged to make it possible for various industries to deliver voice, video, and data to homes and offices, the number of organized interests in telecommunications issues increased, as did their efforts to affect federal policy. These groups included:

- Cable TV groups, which encouraged politicians to support the case that investment in the information highway would be constrained if the FCC lowered cable rates.
- Computing and networking businesses, which lobbied for legislation that increased opportunities for network and computing initiatives.
- Long distance companies, which argued to delay the RBOCs’ entry into the long distance market until the Bell networks were opened to competitors.
- Entertainment, media, and publishing industries, which pursued the right to acquire a larger market share and to restrict services offered by competitors such as the RBOCs.
- Regional Bell Operating Companies (RBOCs), which sought to compete in the long distance arena and to offer cable TV and information services.

This tremendously complex situation is compatible with traditional issue network analysis as coalitions between and within industry groups were constantly realigned in response to

legislative proposals that over a number of years favored one or another of the scenarios listed above (Victor, 1994; West and Loomis, 1998, 141-166).

Private Interest Groups: RBOCs

The RBOCs were arguably the most aggressive group in the campaign to influence the telecommunications policy revision process. The strategy of the RBOCs was multi-faceted. From 1993 through 1995, money donated by the RBOCs to political action committees (PACs) increased significantly. These contributions flowed freely, as related in chapter three, to incumbent legislators seated on influential congressional committees. The *Congressional Quarterly's Federal PAC Directory, 1998-1999* records that "... when the new Republican majorities pledged to deregulate the telecommunications industry those industry PACs, in particular the RBOCs, increased their contributions to members of Congress. SBC Communications increased its PAC giving by 76 percent between 1993-94 to 1995-96, from \$286,850 to \$504,333. Ameritech's contributions rose by 47 percent, from \$428,957 to \$632,285. And Bell Atlantic boosted its PAC donations from \$81,250 in 1993-94 to \$275,998 in 1995-96, a jump of 239 percent" (*Congressional Quarterly*, 1998, x).

There is some evidence that contributions were tied to specific acts of intervention. For example, it was reported that former Congressman Bill Paxon (R-NY) "... helped to change the final language in the telecommunications bill—a bill he had just voted for on the Commerce Committee—after meeting with lobbyists from the Baby Bells. One of the beneficiaries, NYNEX, later transferred \$100,000 in soft money to Paxon's NRCC [National Republican Congressional Committee]" (Grann, 1999, 26). Frank Sorauf warns against Americans' "fundamental and implacable distrust of political money and [the] disposition to attribute much, even too much that happens in American politics to it" (Souraf, 1992, 20). Nevertheless, whether PAC money affected the telecommunications policy process or not, the magnitude and pattern of the contributions suggest an intent to influence.

In addition to their PAC contributions, the RBOCs carried on an aggressive public relations campaign. They spent substantial amounts of money (\$750,000 in 1995) on research and advertising campaigns (West and Loomis, 1999, 159). In 1995 the RBOC coalition, the Alliance for Competitive Communications (ACC), hired the WEFA Group (Wharton

Econometric Forecasting Associates and Chase Econometrics) to update an earlier report that demonstrated the benefits of competition (Persinos, 1995). The WEFA report's introductory summary includes a message repeated by the Bells in many venues throughout the 103rd and 104th Congress: "... the economy performs better and creates more jobs faster if all legal and regulatory barriers to competition are removed immediately and simultaneously than if a phased approach to deregulation is implemented" (WEFA, 1995, 2).

Polling data produced for the RBOCs by the Mellman Group confirmed the pro-competition recommendations of the WEFA Report. In addition, the RBOCs also hired economist Paul MacAvoy (for \$200,000) to analyze phone data: his report was later co-published as a monograph by the American Enterprise Institute and MIT Press: *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Service* (Landler, 1996, 41).

Using the competition theme, the RBOCs conducted an advertising campaign throughout the mid-1990s that targeted publications likely to be read by legislators: the *Washington Post*, the *Washington Times*, *National Journal*, *CQ Weekly*, and *Roll Call* (West and Loomis, 1999, 159-164). The RBOCs' advertisements spotlight minority-educators advocating competition and encourage legislators to support the Breaux-Packwood bill S.2111 (see **Graphic 6.1 – Why We Need Real Competition in Long Distance—Now** on page 152). Typical of the RBOC public relations tactics is the statement by Robert Eaglestaff, principal of American Indian Heritage School that appeared in advertisements. "To me, competition in telecommunications is more than just an abstract theory—it means a better life and greater opportunities for all our children. I urge Congress to support full competition in telecommunications—now" (*National Journal*, 23 Jul 1994, 1744).

The long distance coalition responded in kind with similar advertisements (see **Graphic 6.2 – Policy Entrepreneurs Teach the Bell Monopolies a Few Things about Competition** on page 152) featuring minority-citizen support for S.1822. In these advertisements the long distance companies promoted their preferred solution, "the legislation that opens local markets to competition before the Bells enter the long distance business" (*National Journal*, 23 Jul 1994, 1767).

Graphic 6.1

Why We Need Real Competition in Long Distance—Now



(Click image for a full display)

Graphic 6.2

Policy Entrepreneurs Teach the Bell Monopolies a Few Things about Competition



(Click image for a full display)

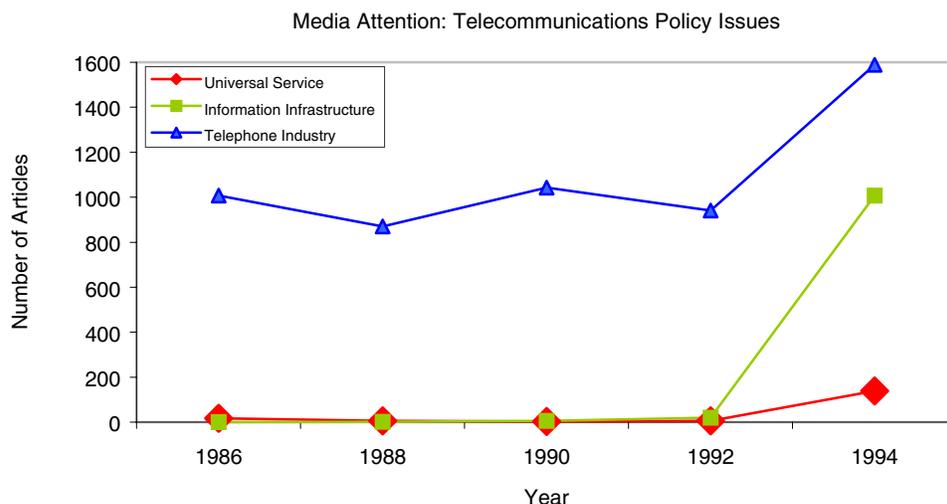
Most observers agreed that the RBOCs prevailed. The Bells' message was powerful and effective. It drew on:

the findings of their sponsored research and econometric studies to weave a narrative of competition that might well appeal to elites and consumers—with members of Congress reacting to arguments both as policy elites and as representatives of constituents. The story line of maintaining or increasing choice [through competition] could convey both policy and political information. Even if its impact could not easily be measured, the competition message was easily disseminated and easily understood (West and Loomis, 1998, 158).

West and Loomis’ conclusion is supported by my content analysis of selected national newspapers and professional policy literature. I found that telephone-industry-related articles on topics such as competition and deregulation (see **Appendix B – Telecommunications Policy Issues—Media Attention**) were 383% more common than articles on universal service and information infrastructure topics combined.

In other words, by far the prevailing media image of the telecommunications debate from 1986 through 1995 was that of competition, regulation, and subjects related to the telephone industry (see **Figure 6.1 – Media Attention: Telecommunications Policy Issues**).

Figure 6.1



Although articles that mentioned the information infrastructure and universal service doubled or even tripled in 1994 (see **Appendix B: Telecommunications Policy Issues—Media Attention**), the number of industry-related articles (containing keywords: AT&T, telephone industry, regulation, deregulation, and competition) throughout the decade continued to be on a much larger scale and helped to define the terms of the debate.

As far as the contribution of preferred solutions was concerned (the RBOCs’ “real competition” policy alternative being one example), solutions originated not in the “somewhat haphazard” way described by Kingdon (Kingdon, 1995, 200-201). Baumgartner and Jones’ emphasis on the strategic use of images (“there must be an image or understanding that links the

problem with a possible governmental solution”) more accurately describes the universal service case (Baumgartner and Jones, 1993, 27). Possibly as a result of the RBOCs’ strategy, policy questions were most often formulated in terms of competition and market-related issues. The public (and the public’s elected representatives) was exposed to a persistent public relations campaign paid for by the RBOCs.

Interest group literature often focuses on the advantages various industry’ interests have in terms of influencing policy-making (Baumgartner and Leech, 1999, 100-119). In chapter one I asked the question, “What capacity do citizens have to influence the agenda-formation process, particularly complex legal and technical issues?” As the RBOCs public relations campaign illustrates, individual citizens are at a disadvantage in terms of a capability to engage in lobbying activity over an extended time period. For the most part, citizens must rely on elected officials and public interest groups as described below to represent their needs and preferences.

Representing Public Interests: Telecommunications Policy Roundtable/Benton Foundation

While Reagan and Bush served as Presidents, participation in the telecommunications policy process was predominantly by industry interest groups (see **Table 6.1 – Profile of Respondents to 1990 NTIA’s NOI and 1993 NII Stakeholders** on page 155). As **Table 6.1** demonstrates of the 134 respondents to the NTIA’s Notice Of Inquiry (NOI) fully 61% were from business, trade, or commercial organizations (see **Appendix F – NTIA Infrastructure Report: Telecommunications in the Age of Information**). Likewise, a smaller but significant proportion of stakeholders, 43%, identified in a background study for an article on the Clinton-Gore NII initiative (see **Appendix A – “The NII: For the Public Good”**) came from the private sector and related organizations.

From 1986 through 1992 public-interest advocates had been relegated “to playing defense, yapping at governmental ‘outrages’ and battling to overcome presidential vetoes or shoot down judicial and agency nominations” (Victor, Jan 1990, 131). With the election of Clinton-Gore, the interest group environment changed, and public-interest activists had renewed hope they would have a role in shaping telecommunications policy. Philip Sparks, co-director of the Washington-based Communications Consortium, described the situation as follows. “The public-interest community has been one of the governments in exile over the last 12 years ...

They are more knowledgeable and credible in terms of the way they conduct lobbying and grass roots activities, and they have substantial research capability. They are also much more sophisticated in terms of communications than 12 or 15 years ago” (Victor, 16 Jan 1993, 134). Spark’s optimism was not shared by consumer advocate Ralph Nader, who described Clinton as “‘bending over backward’ to reassure corporate America that ‘he is not going to destabilize their entrenched power’” (Victor, 16 Jan 1993, 132).

Table 6.1

Profile of Respondents to 1990 NTIA’s NOI and 1993 NII Stakeholders

NTIA Respondents—NII Stakeholders	NTIA Respondents	NII Stakeholders
Computer, Information, Media, Teleco Companies	56	32
Other Businesses	5	4
Trade, Business, and Commercial Organizations	19	14
Labor Unions	0	1
Education Institutions and Organizations	10	4
Government Agencies: Federal, State, Local	17	30
Legal, Government, Public Admin, Military Organizations	8	14
Engineering, Technological, Social Science Organizations	1	8
Cultural and Religious Organizations	2	2
Social Welfare/Health/Medical Organizations	1	3
Hobby and Avocational Organizations	1	0
Foundations	0	3
Individuals	11	0
Unidentified	3	5
TOTAL	134	120

For many of the advocacy groups, Nader’s opinion was confirmed when Vice President Gore and Commerce Secretary Ron Brown began holding a series of meetings to “bring about ‘universal service’” with top executives from the regional telephone companies, long distance, cable TV and media conglomerates. Spokespersons for public interest organizations complained that they were not granted equal time. “The administration is ‘working overtime to curry favor with Hollywood executives and the telephone companies,’ said Jeffrey Chester, executive

director for the Center for Media Education, a media policy watchdog group based in Washington. ‘... We can’t give them big campaign contributions or put them on the 6 o’clock news,’” (Sugawara and Fahri, 1994, E1).

In 1993, Chester organized the Telecommunications Policy Roundtable (TPR) a coalition of 60 groups. TPR membership included among others: the Alliance for Public Technology, (funded by the regional telephone companies), the American Library Association, Computer Professionals for Social Responsibility, the Association of America’s Public Television Stations, the Consumer Federation of America, the American Civil Liberties Union (ACLU), the Electronic Freedom Foundation (EFF), and Ralph Nader’s group, Public Citizen. Despite an impressive list of participants, TPR lacked the resources or established political relationships of the RBOCs and long-distance coalitions. Moreover, TPR represented diverse, often-incompatible interests.

Reportedly alienated by Chester’s outspoken criticism, the Clinton administration chose instead to work with the Benton Foundation’s Communications Policy Project (Browning, 1994, 481). The Benton Foundation, with an endowment from the MacArthur Foundation and a long list of corporate sponsors (including AT&T, Lucent, and Microsoft), was committed to “advocating public policies and documenting the effective uses of new communications tools that will define the public interest in the information age” (Benton Foundation, [cited 2 Jan 2000]) available from: <http://www.benton.org/About/foundation.html>).

Benton staff members pursued tactics similar to the private-interest groups. They organized conferences, commissioned research on universal service, conducted a nationwide poll on citizen attitudes toward new communications technologies, testified before Congress, and published policy papers (<http://www.benton.org/Library/>). In hearings before the Senate Commerce Committee, Benton’s Policy Project Director, Andrew Blau, made a compelling case, one of the few, that public interest values as incorporated by nonprofit organizations be considered in the telecommunications policy revision:

In sum, nonprofits are our traditional means of dealing with a wide range of human needs that we have long acknowledged lie outside the boundaries of the commercial marketplace; the health and education of our children; the fabric of local community, knit through private voluntary associations; the ties of culture and history that link people across generations; and the vigor of our

democracy, animated by civic associations, advocates and citizens groups. The services get delivered thanks to a legal and policy structure that acknowledges the special role that nonprofits play in education, health, culture, communities and our democracy.

If that legacy is to be carried into the information age, we must include nonprofits in the planning and implementation of the NIH and make them a part of “basic” service, not an afterthought or corrective to a commercial system that predictably fails to serve public interest values. We must acknowledge their special attributes and unique contributions, and build policy that includes the nonprofit sector from the outset (U.S. Senate Committee on Commerce, 22 Jun 1994).

In brief, Benton welcomed the new technology and envisioned its value beyond the marketplace. Although the universal service agenda had been set in 1993 by Clinton-Gore, Blau argued not only to advance a policy alternative but also to participate in the decision-making process.

I began this discussion of interest groups by speculating whether Kingdon was accurate in predicting that interest groups contribute preferred solutions after the agenda is set. The alternative possibility, as suggested by Baumgartner and Jones, is that interest groups play a role by influencing public opinion and framing the terms of the policy debate. As with the punctuated equilibria or cycles research objective, the answer seems to be a matter of perspective and a bit of both.

West and Loomis conclude that corporate interests (the RBOCs’ competition narrative) for the most part dominated the process. “Consumer activists were active and sometimes influential, but this convoluted policy debate was not like Clinton’s health care reform or Gingrich’s Contract with America, both which motivated citizens to contact members of Congress. The subject was technical and complex ... Telecommunications politics during this period demonstrates that even when the number of individuals affected by legislation is vast, the scope of the conflict need not be expanded beyond the policy community of core interests” (West and Loomis, 1998, 155). While I concur that private interest groups had a significant role in telecommunications-policy agenda-setting, in the final analysis I believe that the debate on the universal service component of the legislation was expanded and defined by the public interest groups. Their participation was assured, even welcomed, by the Clinton-Gore administration.

Observers of the situation support this view. “Before the roundtable [TPR] was formed, the cable television, telephone and computer industries dominated the superhighway debate ... The roundtable’s organizers almost did too well. Suddenly another serious player came on line in the telecommunications policy debate and the Administration started listening (Browning, Feb. 1994, 482). There is no proof that the Clinton-Gore administration was motivated by the public-interest group discourse; nevertheless, eight months after the TPR leadership made a number of public statements criticizing the superhighway initiative, Gore played host to 600 invited guests from the public-interest community. He promised the group that “every classroom, clinic, and library in the U.S. would be wired within the next five years” (St. Lifer and Rogers, 1994, 14).

A more compelling indication of public interest advocacy impact was that the final legislation included Benton Foundation’s board member Jorge Schement’s 1993 universal service recommendation, in essence if not verbatim:

“... universal service is not a single policy to be written by a government agency. It is rather a guiding principle of the information society. And as such, always debated, always tested, always pursued” (Schement, 1993, 8. [cited 2 Jan 2000]) Available from:

<http://www.benton.org/Library/Universal/Working1/>

“In general, Universal service is an evolving level of telecommunications services that the Commission shall establish under this section, taking into account advances in telecommunications and information technologies and services” (U.S. Public Law 104–104, Section 103).

As Kingdon predicts academics (such as Schement) “affect the alternatives more than governmental agendas” (Kingdon, 1995, 55). In 1993, however, long before policy solutions were settled upon, Schement and his colleagues proposed a rationale that was used by politicians to set a telecommunications policy agenda, which included universal service not as a static but as a dynamic solution that will evolve with the technology.

Government Agencies, Foundations, the Farm Team as Interest Groups

Although included in the issue network and advocacy coalition notions neither Kingdon nor Baumgartner/Jones’ theories include explicit discussion of government agencies as interest groups. I recognize that significant differences exist within the political science discipline on the matter of what constitutes an interest group (Baumgartner and Leech, 1998, 22-43; Salisbury,

1984; Loomis and Cigler, 1991). However, using the term interest group broadly offers more explanatory possibilities. In fact, I found that three categories of special interests lobbied as aggressively and exerted as much influence over universal service agenda-formation as did traditional industry and citizen advocacy groups. These groups are: foundations and think tanks, government agencies, and the Farm Team.

Foundations/Think Tanks: American Enterprise Institute (AEI), Benton Foundation, Citizens for a Sound Economy (CSE), Electronic Freedom Foundation (EFF), Heritage Foundation, Markle Foundation, Progress & Freedom Foundation (PFF):

The foundations named above, a far from comprehensive list, were significant players in setting telecommunications policy agenda. Katharina Kopp's 1997 dissertation, *The Role of Private Philanthropic Foundations in Communications Policy Making: Defining the 'Public Interest'—The Ford and Markle Foundations Influence on Policy Making at the Federal Communications Commission* makes the case that, although the links are indirect, "foundation activities, the activities of their grantees, their research and publication output can influence the policy agenda at the FCC" (Kopp, 1997, 140).

Kopp's research results appear to confirm Frank Fisher's contention that the "private deliberations of elites" set federal policy agendas prior to discussions by political elites. Fisher writes, "as policy-planning organizations [foundations] play a larger and larger role in shaping the political agenda, formal governmental policy makers—the president, Congress, and the federal agencies—increasingly constitute a later phase of a much more complex and subtle process of agenda development. The government processes, featuring pluralistic deliberation and compromise, appear to be only the visible tip of the iceberg" (Fisher, 1993, 33). I found a great deal of evidence, not presented because the matter is only tangentially related to the dissertation topic, that foundations and foundation-funded organizations like the Aspen Institute were (and continue to be) pivotal players with regard to telecommunications and information technology policy making.

Kingdon's metaphor of, "the policy primeval soup" alludes to the behind-the-scenes importance of foundations who hire members of the policy community ("academics, researchers, and consultants") to generate ideas. But he clearly distinguishes between "academics, researchers, and consultants" and interest groups (Kingdon, 1995, 53). Indeed, Kingdon's

concept of the policy-making as three separate processes—problems, policy alternatives, politics—argues against the likelihood of using connections between the “three streams” to explore the agenda-setting dynamic.

Nevertheless by 1995, the publication date of the second edition of Kingdon’s book, it was clear that a number of interdependencies existed between Washington’s new conservative and libertarian think tanks and the conservative establishment. In some instances, “the tradition of impartial scholarship was being abandoned for a more activist approach to policy information that obscures the line between research and advocacy” (Jacobson, 1995, 1767). Jacobson cites, among others, the Competitive Enterprise Institute (CEI), Citizens for a Sound Economy (CSE), the Institute for Justice, the Progress & Freedom Foundation (PFF), and the Alexis de Tocqueville Institution. These organizations produced policy analysis with an ideological bias in support of political agendas; for example, the PFF was closely tied to Newt Gingrich. While not a new phenomenon and certainly not unique to conservative politicians, the relationship between Gingrich and the PFF was more partisan than many.

Kingdon does concede that policy entrepreneurs whom he characterizes as “persons in and out of government, in elected or appointed positions, in interest groups or organizations” invest resources in policy research and proposals “in hope of a future return” (Kingdon, 1995, 122). He also states that the incentives for policy advocates include the promotion of personal interests and values. Kingdon does not, however, take the idea a step further to ask who pays the academics, consultants, and researchers to generate ideas and funds the institutions that have added more activist policy specialists to the political environment in recent years? This is not to say that these questions have not been explored by political scientists and policy scholars just that the answers are not explicitly integrated into the Kingdon or Baumgartner/Jones’ analysis.

Government Agencies: the FCC and the NTIA

Although Kingdon’s research concentrates on the involvement of government elites in agenda-setting, and concedes that lobbying by government officials “particularly state and local officials” corresponds to interest group lobbying, he does not explore the idea further (Kingdon, 1995, 48). I have already described Baumgartner and Jones’ notion of the impact policy decisions have on the government institutions as the result of a Downsian “issue attention cycle” or a Schattschneider mobilization (Baumgartner and Jones, 1993, 151). Baumgartner and Jones

do not single out for discussion the impact of federal agency policy promotion on agenda-setting. Nevertheless, the fact that government agencies are integrally involved in the agenda-formation process is implicit their case studies of nuclear power and pesticides.

From a political perspective, one would expect leadership in terms of advocacy for universal service from the FCC's Reed Hundt and the NTIA's Larry Irving, both Clinton appointees. Nevertheless, from an institutional perspective the FCC and the NTIA stood to benefit tremendously from an expanded universal service policy in terms of resources to advocate and monitor new regulation. As was documented in chapter five, past and present FCC officials actively promoted telecommunications policy alternatives both through congressional testimony and articles in *Telecommunications Policy* as did the NTIA's Larry Irving.

A number of scholars propose that regulatory commissions such as the FCC are "captives" of the industries they regulate (Edelman, 1964; Galbraith, 1973). Another possibility exists, however, as illustrated by a study of FCC regulation of AT&T from 1965-1974, which found that "the FCC is a self-interested organization which seeks to maintain and increase the supply of telecommunications services requiring regulation" (Kehoe, 178, 13). In other words, setting aside any ideological motivation, such as the inclination of Hundt and Irving to support Clinton-Gore policies, sheer self-interest dictates that the vitality of the institution is bolstered by additional responsibilities. In fact, appropriations for the FCC increased by 58% between 1990 and 1995, from \$107,550,000 to \$185,232,000 (FCC, 1997, 13).

The Farm Team

A brief description of Farm Team involvement in the universal service debate is included at the same time, I acknowledge there is a difference between the official who represents a interest and the non-governmental representative who advocates an interest (Kingdon, 1995, 45-70; Salisbury, 1984, 71). Nevertheless, in my opinion, members of the Farm Team constitute a special interest that exerted significant influence relative to the universal service agenda status.

In chapter one I stated my intent to investigate the extent to which public advocacy by the United States President and Vice-President, media, and government elites may be factors that affect agenda-setting. Certainly in setting the universal service agenda and promoting universal service to a high status on the "decision agenda," influence was exerted by a bi-partisan coalition

of legislators from rural states with relatively small populations: Senators Dorgan, (D-ND); Exon, (D-NE); Rockefeller, (D-WV); Leahy, (D-VT); Snowe, (R-ME); and Stevens, (R-AK). They were undeniably a group that made “certain claims upon other groups in society for the establishment, maintenance, or enhancements of forms of behavior” (Truman, 1951, 33). Their claims were made in the interest of expanded universal services for citizens who live in sparsely populated areas where the costs of providing broadband network services may not be economically justified.

I am interested in the Farm Team as their actions relate to the research questions posed in chapter one concerning capacities to influence policy within a democratic governance system. In a study of Senate apportionment, Lee and Oppenheimer note that “immense variation in constituency size shapes the Senate both as a representative and as a policymaking body” (Lee and Oppenheimer, 1999, 7). The framers of the Constitution designated two representatives to the Senate from each state regardless of constituency size. Unequal apportionment:

... conditions the representative relationships of senators and their constituents, the cornerstone of democratic governance. It influences the competitiveness of elections, the financing and conduct of campaigns, and the partisan control of the Senate. It affects senator’s behavior in performing their governing duties as well as the behavior of those trying to influence them. State population size influences the choices senators make regarding their time and resources, the strategies they pursue and their opportunities for influence within the Senate. Most important apportionment shapes the way the Senate designs public policy and distributes federal funds to states, the what, when, where and how that are the basic building blocks of politics (Lee and Oppenheimer, 225).

Whether universal service is desirable policy or not, the evidence examined for this dissertation supports Lee and Oppenheimer’s conclusions that state constituency size influenced senatorial strategic goals and relationships regarding universal service policy. Senate apportionment gave a small group of legislators the ability to exercise significant power relative to the number of citizens they represent. The Farm Team not only insisted that universal service remain on the agenda but they also were instrumental in promoting the SREK amendment that extended subsidized network-based services to schools, libraries, and health-care facilities. Precisely why the Farm Team prevailed is difficult to say except their rhetoric was compelling,

and their goals were compatible with the Clinton-Gore administration, the computing and network technology industries, and many public interest groups.

Conclusion: Interest Group Influence

Research Objective 6

To examine if interest groups play an important role in determining policy images and in fact often define the terms of the debate (Baumgartner and Jones).

Research Finding 6

Interest groups play an important role in determining policy images and in fact often define the terms of the debate.

It is undeniable that interest groups, as Baumgartner and Jones describe, helped determine policy images and define the terms on both sides of the telecommunications/universal service debate. The RBOCs argued for economic development, competition, and efficiency as the overriding values. The media, politicians, and some policy analysts (West and Loomis, 1998) expressed the opinion that the RBOC group sabotaged proposed telecommunications legislation not to their liking in 1994. The *New York Times* quoted Senator Hollings (D-SC) in his announcement of the demise of his attempt to rewrite the telecommunications law, S.1822, as “blaming some of the regional Bell companies, which argued that the bill was stacked against them” (Andrews, 1994, 1). In a similar vein, the *1994 CQ Almanac* headline for the telecommunications section read: “Stumped by Bell’s Objections, Senate Kills Overhaul” (*CQ Almanac*, 1994, 203).

On the one hand, it is true that as Kingdon suggests, the RBOCs attempted through “negative blocking” to eliminate universal service from the 1996 Act. Although their “competition” campaign was influential in terms of affecting political elite action in the short-term, well-financed and established Washington private interest groups such as the RBOCs did not prevail in the end. Throughout the policy process, however, the RBOCs had greater capacity and access to the policy-making process than did the general public or many of the public interest groups.

On the other hand, contrary to Kingdon’s statement that interest groups activity generally takes the form of negative blocking, the public interest groups’ “positive promotion” of equity values framed the other side of the discussion. Policy papers published by the Benton Foundation

and the NTIA's *Falling Through the Net: A Survey of Have Nots in Rural and Urban America* and *Telecommunications in the Age of Information* were influential as demonstrated by the fact that they were referred to in congressional hearings and by the media. The Farm Team, Clinton-Gore, the Benton Foundation, the NTIA and the TPR formed a powerful coalition that defined the discussion in equity terms. Representatives of these groups such as Andrew Blau, Larry Irving, Jorge Reina Schement, and Senators Snowe and Dorgan presented policy alternatives that served the interests of the individual citizens.

Media Attention

Research Objective 7 To discover if a relationship exists between positive media tone and legislative action (Baumgartner and Jones).

In his book *Governing with the News*, Timothy Cook describes how the media influence public opinion and politicians by giving visibility to certain issues and neglecting others. This dynamic has implications for agenda-setting. As with the decision agenda, where there are vastly more problems that need attention than there is time to process them, there are also more political events each day than there is opportunity for cover them. Thus once a topic has been selected as newsworthy it helps to establish that situation or problem as worthy of attention and political action. The factual material that makes up the news article is mediated or shaped for presentation by the reporter. According to Cook, politicians increasingly rely on the media to fulfill their responsibilities and therefore "have incorporated the needs of the news into their priorities, options and decisions" (Cook, 1997, 183).

In contrast to Cook's claims that the press serve as an intermediary in the political process, Kingdon finds that the media do not play a prominent role in agenda-setting. During his interviews, media were cited as being important only 26% of the time as opposed to interest groups (84%) or researchers (66%) (Kingdon, 1993, 58). In addition, media attention was found to be "somewhat important" in only four of Kingdon's 23 case studies and never "very important" (Kingdon, 1993, 58). Although he does not use the word superficial, Kingdon implies as much in his description of the press. He notes the media's tendency to move from one topic to another, featuring dramatic stories in order to capture public attention and failing to report on the research that precedes a policy proposal. For example, the media may report on a congressional hearing that was weeks in preparation, in which case the agenda was set long before the article is

published. Kingdon lists three unique functions that the media performs with regard to the policy-making process:

- acting as a communicator within the policy community;
- shaping an issue once it has been established; and,
- influencing legislators by affecting public opinion (Kingdon, 1993, 59-60).

Kingdon, stresses that the media have little impact on the decision agenda because the press are not part of the policy community. Kingdon's explanation of media involvement is in keeping with his representation of agenda-setting as an intellectual process that takes place within the policy community.

Baumgartner and Jones state that the "media play an integral role in the policy process by directing attention alternately toward different aspects of the same issues over time and by shifting attention from one issue to another" (Baumgartner and Jones, 1993, 103). Like Kingdon, they point out, "rational consideration of all sides [in policy discussions] is too complex and cannot be expected" to appear in national newspapers (Baumgartner and Jones, 1993, 113). Baumgartner and Jones characterize media coverage as "lurching," focusing first on positive and then on negative aspects of an issue, which they feel is a reflection of the political system and reinforces the punctuated equilibrium pattern.

Baumgartner and Jones acknowledge the interdependence between reporters and policy entrepreneurs. Cook refers to this dynamic as "the negotiation of newsworthiness," and it is at the core of his argument concerning the news media as a political institution. Cook writes:

The negotiation of newsworthiness occurs simultaneously on several different levels. One is the explicit battle over the forums in which interactions will occur, as officials and reporters seek to specify the conditions and circumstances under which they will meet. Another is the explicit interaction within those forums, perhaps exemplified by the give-and-take of press conferences. Finally, an indirect and implicit negotiation goes on when each party is out of sight of the other—as sources anticipate what will make news, and as reporters go back to their home organizations with the raw material and reshape it into a coherent news account (Cook, 1997, 102-109).

Kingdon appears to take the media's role at face value, "the media report what is going on in the government, by and large ... (Kingdon, 1995, 59). Baumgartner and Jones, however, describe a more complex situation that has implications for agenda-setting. "The set of images of public issues put forth in the media is determined by a mix of factual circumstances and by the interpretation attached to these circumstances by policy entrepreneurs [and reporters]" (Baumgartner and Jones, 1993, 107).

In fact Cook's study of the role of the press in the political process supports Baumgartner and Jones' view. Cook writes: "We cannot make simple interpretations of political effects *on* the news or of the media's effect *on* politics. The two are so intertwined that it is preferable to study, first, the news media's interactions with political actors, including the perspectives from both the political and the journalistic spheres of the process, and second, the effects that those interactions and negotiations have on the kind of news that appears and the kind of policies and politics that are thereby encouraged" (Cook, 1997, 13). In the next several pages I describe media attention to the 1996 telecommunications policy revision. In addition I use media indicators to trace the extent of media interest in universal service policy. Finally, I review a series of *Wall Street Journal* editorials on the universal service issue that captured the attention of political elites.

Telecommunications Policy and the Media: H.R. 2140 and H.R. 3515

The media industries have a vested interest in the telecommunications policy. Although this study has focused on telephony aspects of the 1996 Act, other components of the legislation concern the rights of information services providers to deliver information to the home and ownership rules governing the broadcast, video, and cable industries. Over the decade, there were several times when these issues converged. If I look at two examples of the media industries' opposition to telecommunications legislation that threatened their market I see that these cases raise questions about journalistic ethics and lend an aura of naivete to Kingdon's assertion that "media report what is going on in government." In both cases, summarized below, when faced with a perceived threat from legislation before Congress (H.R. 2140, 1989; H.R. 3515, 1991), media interest groups formed alliances and developed strategies to protect their economic interests.

H.R. 2140. Consumer Telecommunications Services Act of 1989

A bill to bring new and innovative consumer services to the American public by allowing the telephone operating companies and their affiliates to provide information services and to manufacture customer premises equipment.

In 1989 Representatives Swift (D-WA) and Tauke (R-IA) sponsored **H.R. 2140**, legislation that would allow the RBOCs to offer new services such as network-based classified advertising that would be transmitted over telephone lines. This was a service that newspapers were planning to deliver. As a result Tauke was the target of negative articles in the Davenport, Iowa *Quad City Times*. He also reported that publishers of some of the smaller Iowa papers refused to take his new releases. According to Tauke, “most members [of Congress] are willing to take their lumps on the editorial page ... What really scares them is the prospect of damaging news coverage—or, worse, no coverage at all” (Matlack, 1989, 2137). In spring of 1989, publishers from some of the nations best-known newspapers met in Washington D.C. Represented were the *Washington Post*, the *New York Times*, the *Chicago Tribune*’s parent Tribune Co., Times Mirror, Gannett Co. Inc., Cox Newspapers, Scripps-Howard Newspapers, and Newhouse Newspapers. One item was on the agenda: “How to bury the Swift-Tauke bill. They agreed to a strategy of one-on-one lobbying with their local congressional representatives and visits by four of the group to John Dingell (D-MI), who chaired the House Energy and Commerce Committee; and to Edward Markey (D-MA), who chaired the Energy Committee Telecommunications and Finance Committee (Matlack, 1989, 2137-2141).

Questions about media influence and agenda-setting in general deserve more attention than they receive from either Kingdon or Baumgartner/Jones. Cook asserts, “journalists are political actors” (Cook, 1997, 85). In collecting data on the universal service case I found that from 1986 to 1995 journalists served as:

- mediators of what was newsworthy relative to telecommunications legislation;
- telecommunications policy experts on such television programs as CNN’s *Capital Gang* and PBS’s *Washington Week in Review*; and,
- lobbyists in the cases of H.R. 2140 (1989) and H.R. 3515 (1991).

In 1989 the *National Journal* reported that “Pacific Telesis Corp. (a west coast RBOC) has a box at Wolf Trap Farm Park Center and frequently invites reporters to shows.” Mary Hallisy, director of corporate communications, is quoted as saying “it is an opportunity to get to know the people we work with” (Matlack, 1989, 728).

H.R. 3515. Telecommunications Act of 1991

A bill to amend the Communications Act of 1934 to encourage competition in the provision of electronic information services, to foster the continued diversity of information sources and services, to preserve the universal availability of basic telecommunications services and for other purposes.

Introduced by Representative Cooper (D-TN), **H.R. 3515** would prevent an RBOC from providing electronic publishing services within its region. The restriction would be lifted only when “the FCC determined that at least 50 per cent of all businesses and residences in the area had ready access to comparable services and that at least 10 per cent of them were customers of the RBOCs potential competitors” (Victor, 1991, 2590). The RBOCs mounted a multimillion-dollar campaign to persuade disabled people and other groups that the regional telephone companies, given the opportunity to compete in new kinds of information services, would provide them with a better quality of life. Cathleen Black, president and chief executive officer of the American Newspaper Publisher’s Association (ANPA), took the lead in representing a publisher-led coalition. Members included the Association of Independent Television Stations (INTV), the National Association of Broadcasters (NAB), the National Cable Television Association (NCTA), and the National Newspaper Association (Kriz, 1990, 2068). Although the RBOCs were much-maligned for their lobbying tactics and the size of their PAC contributions, Representative Slattery (D-KN and cosponsor of the Tauke legislation in 1989) pointed out the power of the media group. “There is not one Member of Congress who does not understand who publishes their local newspaper, meaning that ANPA is a big gorilla in this fight and Members of Congress will be very reluctant to do anything that offends their local publisher ... I don’t care how much bloody money a PAC spends, a newspaper out there is a force that every politician has to deal with every day” (Victor, 1991, 2590).

A review of media behavior during the ten years under study discovered a more powerful policy player than the objective press described by Kingdon, Baumgartner/Jones, or even Cook, who focuses on political actors’ use of media to further their interests rather than the media’s use of their power. In the telecommunications case, use of the national news media by the industry itself points to a conflict of interest far greater than the influence of politicians on a neutral press. As a headline in the *National Journal* states: “Few dispute that newspapers, like any other business, have a right to lobby Congress to protect their economic interests. But newspapers are not like any other business” (Matlack, 1989, 2137).

Media Attention Indicators

Over a ten-year period the national media paid little attention to universal service policy (**Figure 6.1 – Media Attention: Telecommunications Policy Issues** on page 153). If the media

negotiates newsworthiness with politicians, then a comparison with the pattern of media attention to telephone industry (11,521 articles), technology-related topics such as the NII (2,005 articles) and universal service (378 articles) illustrates how media attention was allocated to telecommunications policy issues.

Although the scale was small, both media attention and the trend of legislation and congressional hearings on universal service were at a high point in 1994 (see **Figure 5.4 – Trend of Legislation and Hearings: Universal Service** on page 106 and **Figure 6.1 – Media Attention: Telecommunications Policy Issues** on page 153). Although almost a non-issue in the press before 1992, the strength of enthusiasm for universal service grew in 1993 as Clinton-Gore and the legislators from rural and small-constituent states promoted universal service as a matter of equity. The result, as described earlier, was a Downsian mobilization of enthusiasm for the benefits associated with the information superhighway. This trend of media attention supports Baumgartner and Jones' thesis that reporters lurch from good to bad aspects of a story or in this instance, to good aspects from little interest in a story. For the most part, media attention to universal service was positive or neutral. The sole exception was the *Wall Street Journal*, whose editors published a series of editorials and articles throughout the mid-1990s condemning universal service policy.

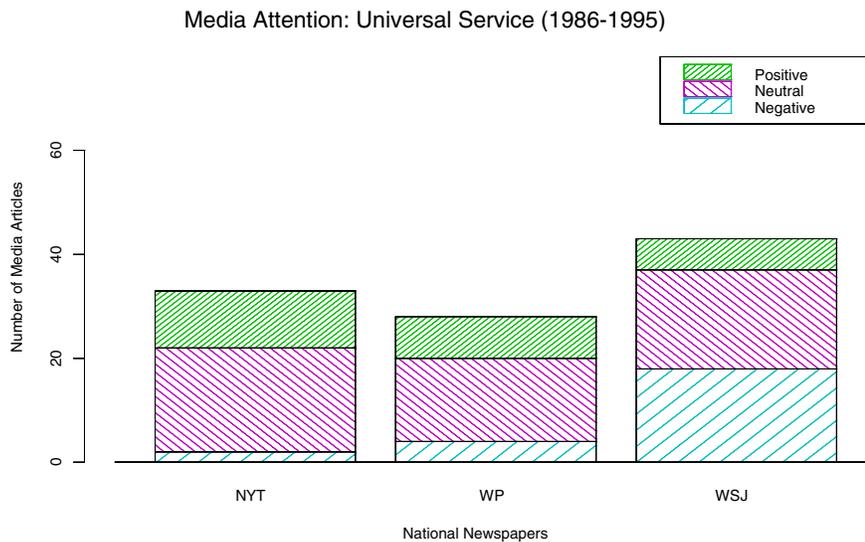
The Wall Street Journal

National media attention in general was positive or neutral toward universal service (see **Figure 6.2 –Media Attention: Universal Service (1986-1995)** on page 170). An exception was the *Wall Street Journal*, which published 41 articles on the topic of universal service between 1986 and 1995. Of the stories (all of which appeared in 1994 and 1995) 41% were negative, 46% were neutral and 12% were positive. The percentages are interesting when compared with the *New York Times*, whose 33 articles were 6% negative, 33% neutral, and 60% positive; and the *Washington Post* whose 26 articles were 15% negative, 31% neutral, and 54% positive.

The negative articles in five instances referred to Clinton officials as French bureaucrats, which is explained by the author of one article as “redolent of the world ... in which theoretically smart officials conclude that with their help the market can be made better than it already is. So they create a playing field with many levels weighted and canted to accommodate both market

efficiency and this year’s notions of social justice, gender justice and Lilliputian entrepreneurs” (*Wall Street Journal*, 13 Jul 1994, A14).

Figure 6.2



I assume this is a reference to the French bureaucracy governance model developed by Michel Crozier. Crozier describes a society resistant to change as a result of narrow-minded cultural traits and a rigid bureaucracy. Crozier uses “stalemate” to describe the French: “Like players in a stalemate ... they wait for an opening; and when it comes, most probably from the outside, they move in, all at once, thus reconstructing a new stalemate. What they fear is not change itself, but the risks they may encountered if the stalemate that protects them (and restricts them at the same time) were to disappear” (Crozier, 1964, 226). In the opinion of the *Wall Street Journal* editors, the universal service stalemate should be abandoned in favor of a market solution. Legislation to the contrary was characterized as archaic and a barrier to progress.

Throughout 1994 and 1995, the *Wall Street Journal* reported on legislative proposals for subsidized universal service from a conservative perspective. An article written in response to a speech by Gore promising the preservation of universal service exemplifies the *Journal’s* tactics and tone relative to universal service policy. “One would imagine that the poor get about all the information they want as things stand now and in many cases, even resist the efforts of schools,

libraries, and the information media to make them better informed. Indeed, that resistance—often helps explain why they are poor” (Melloan, 1994, A19).

Prominent politicians took the articles seriously enough to respond. In a 1994 letter to the *Wall Street Journal* editor, Vice President Gore wrote:

When electric power stopped being a curiosity and became a necessity, President Franklin Roosevelt developed a program to extend electric service to previously unserved rural regions. Similarly the United States has long been committed to the widespread availability of basic telephone services at affordable rates. As telecommunications capabilities advance, and the National Information Infrastructure (NII) develop, the concept of ‘universal service’ must advance as well. When advanced communications services become as important to modern life as the telephone, electric power and public schooling are today, we must ensure that these services are available to all (Gore, 28 Feb 1994, A15).

Senators Hollings and Lott also wrote in defense of universal service in response to a particularly caustic editorial, “Edsels on the I-Way.” Unlike Gore who makes equal access the main point of his letter, the senators defend universal service as a byproduct of pro-competitive, deregulatory legislation.

Senator Pressler also engaged in the letter-writing exchange, “Speed Traps on the I-Way,” apropos of our earlier discussion of media interest in the legislation: “The bill does not provide a special ‘carve-out’ for newspaper publishers. Newspaper companies—including your publisher Dow Jones—wanted regulatory protection from competition in their electronic-publishing services. The House bill provides this, but I have refused to support it” (Pressler, 1995, A17).

Conclusion: Media Attention

Research Objective 7

To discover if a relationship exists between positive media tone and legislative action (Baumgartner and Jones).

Research Finding 7

Media attention to universal service from 1986 to 1995 was modest. Nevertheless, as a trend in positive media tone increased positive legislative action on telecommunications/universal service policy took place.

While it is not possible to attribute a direct causal relationship between media indicators and the 1996 Telecommunications Act, I found that similar patterns existed between media and political elite attention to universal service. Furthermore, it is clear that Kingdon's view of media as passive participants who "report what is going on in the government" with no agenda-setting role bears further investigation. Neither Kingdon nor Baumgartner/Jones necessarily had reason to question motives for news media attention because their research involved issues in which the media had no apparent bias. Concerning the 1996 telecommunications bill, members of the press:

- appeared on television as policy experts;
- accepted social invitations from industry groups;
- failed to cover proposed policy debates when the matter under consideration was not in their interest; and
- actively lobbied for legislation that would prevent their competitors from entering their market (Matlack, 1989, 724-729).

These activities are noteworthy because the media industries had an economic stake in the telecommunications policy outcomes and because the press is often viewed as a neutral venue, ideally if not in reality, acting as a "watchdog" over government officials (Denton and Woodward, 1990, 10).

With regard to media attention and agenda-setting, Baumgartner and Jones point out that the media is "... the privileged means of communication, the way by which disjointed actors keep tabs on each other and on what they consider the 'public mood'" (Baumgartner and Jones, 1993, 107). In a similar vein Cook writes: "Members of Congress, both backbencher and leader alike, are faced with the inevitable difficulty of getting their 534 colleagues to concentrate on a particular agenda and come together to pass coherent legislation. Consequently they will try to find mechanisms through the media to gain focus in a dispersed, coequal institution" (Cook, 1997, 125). During the years that telecommunications policy was under active consideration for revision political elites spent time clarifying their positions on legislative proposals by holding interviews and promoting their policy goals through the news media. In addition they not only read media articles on the topic but they took negative press seriously enough to respond.

Public Opinion: Kingdon and Baumgartner/Jones

Research Objective 8 **To determine if public opinion, as one of many venues in a pluralistic society and a component of national mood, plays a role in agenda-setting (Baumgartner and Jones).**

Kingdon associates public opinion with “the national mood,” which he explains in an often cited paragraph (Baumgartner and Jones, 1993, 248; Stimson, 1999,1) goes by a number of names. “[T]he climate of the country, changes in public opinion, or broad social movements, ... the notion that a rather large number of people out in the country are thinking along certain common lines, that this national mood changes from one time to another in discernable ways, and that these changes in mood or climate have important impacts on policy agendas and policy outcomes” (Kingdon, 1995, 146). As with other outside-of-government influence (interest groups or the media) public opinion according to Kingdon, “may affect an agenda of subjects in a general way, but the general public opinion is rarely well enough formed to directly affect an involved debate among policy” (Kingdon, 1995, 66). Once again, Kingdon’s view of agenda-setting leaves little opportunity for participation in setting the policy agenda outside of the policy community and certainly there is no role for individual citizens.

Baumgartner and Jones refer to the work of James Stimson in their discussion of “national moods and public policy.” Stimson has published two major studies of public opinion (1991 and 1999) in which he uses time series methodology to present a theory of public mood cycles. In both studies, he measures survey marginals that is the descriptive results of opinion polls on specific issues over an extended period of time. Stimson finds evidence that the public’s “policy moods” move in cyclical manner responding to policy changes and “reacting against policies of the left and the right” respectively (Stimson, 1999, 129). After a time of expansive government programs, for instance the liberalism of the Kennedy-Johnson years, public opinion moved toward the right. Similarly, after the election of Reagan, a trend began away from conservative preferences (Stimson, 1999, 69-73).

Baumgartner and Jones note that their time series measures (media attention, congressional interest or policy outputs), which suggested a punctuated equilibrium model do not correspond to the cyclical pattern of public moods as described by Stimson. Baumgartner and Jones attribute the discrepancy to notions of what direction causality flows. They conclude that “public opinion reacts to public policy more than causes it” (Baumgartner and Jones, 1993, 247). In other words, in most

cases public opinion has little influence on agenda-formation. Baumgartner and Jones also state that their research results suggest, as do Kingdon's, "mass mobilizations and public opinion reactions occur late in the issue development process, after many of the most important issues have been decided during elite-level debates and jurisdictional battles ..." (Baumgartner and Jones, 1993, 248).

Public Opinion Indicators

As Kingdon and Baumgartner/Jones point out, opinion polls are just one key to public mood. I use data from the Roper Center for Public Opinion Research as an indicator of the public opinion regarding universal service policy. Other indicators of public opinion: public opinion as reflected by competing group interests or public opinion as represented by media and elite opinion (Glynn et al, 1999, 19-22) have been described previously. I was interested not in responses to the questions per se but whether or not universal service was considered important enough by pollsters or poll sponsors to merit survey questions.

A search of the Roper Center for Public Opinion Research database from 1986 to 1995 found that there were no surveys containing the phrase universal service. Searching for the word telecommunications returned 99 questions (see **Appendix K – Roper Center for Public Opinion Research**) for the most part dealing with consumer interest and satisfaction regarding telecommunications services. From 1986 to 1989 question focused on industry deregulation and foreign trade issues, which confirms my assessment of political elite interests in telecommunications issues during those years. From 1990 to 1992 there were no relevant surveys. After 1993 questions containing the word telecommunications were designed for the most part to determine interest in network-based information, communications, and entertainment services and the prices people would be willing to pay for such services.

In 1995 the Mellman Group conducted a survey about attitudes toward the RBOCs relative to competition in cable, local and long distance services. As I described earlier, the Mellman Group provided data for the Bell's claim that competition ought to be the goal of revised telecommunications policy. Searches of the phrase information highway, and the phrase information superhighway, retrieved 17 and 46 questions respectively between 1993 and 1995.

Most of these are concerned with perceptions and attitudes toward the internet and network-based technology.

Conclusion: Public Opinion

Research Objective 8: **To determine if public opinion, as one of many venues in a pluralistic society and a component of national mood, plays a role in agenda-setting (Baumgartner and Jones).**

Research Finding 8: **Public opinion in the universal service case does not appear to have played a role in the process by which universal service moved to a high status on the decision agenda.**

From 1986 to 1995 there was not one question in the Roper Center data that indicated public opinion regarding equitable delivery of telephony or network-based services was information worth gathering. To the contrary the surveys, in some cases sponsored by media companies or telecommunications providers and administered by opinion poll groups focused on reactions to technology particularly its relationship to television. Lack of interest in the topic seems to confirm Kingdon and Baumgartner/Jones' positions that policy issues move onto the agenda as a result of political elite attention rather than public opinion. Public opinion as reflected in poll data may influence political elite behavior but it just one of many measures of the national mood.

I acknowledge a number of problems with drawing conclusions about public opinion influence from the universal service case. One of the few opportunities for citizens to become informed about policy matters is through mass-mediated communication. As described earlier, media response to the telecommunications reform was biased to some extent by concern about legislative proposals that set the stage for new information service providers to compete with traditional media. This conflict-of-interest may have resulted in a lack of coverage of the telecommunications debate. In addition although an issue of high salience, universal service is a complex, technical topic not conducive to summary except in a most simplistic way. In brief, there is little evidence that the public had an opinion about universal service.

Conclusion: Differences

The similarities between the Kingdon and Baumgartner/Jones theories have to do with the creative, intellectual, strategic work that takes place during the policy-making process. Despite agreeing that problem definition, policy images, and a solution are necessary components of agenda-setting Kingdon looks inward at the process from the perspective of government officials. Although they do not dismiss government agencies as part of the advocacy process, Baumgartner and Jones focus beyond the federal government on the scope of the “conflict” and the extent to which persons outside of government become involved. As a result Baumgartner and Jones stress the issue redefinition process as it changes the balance of control and leads to opportunities for policy change.

Kingdon and Baumgartner/Jones study agenda-setting from different angles, levels of aggregation, and time-periods. Therefore they reach different conclusions. Kingdon makes the case for a cyclical model in which regular political cycles influence the policy agenda. Baumgartner and Jones suggest a more erratic pattern with long periods of stability interrupted by sudden transformation. My study of universal policy development from 1934 to the 1996 Telecommunications Act suggests incremental, evolutionary change, perhaps characterized by Baumgartner and Jones as relative stability that was to a great extent dominated by factors outside the control of government officials and elected politicians. Although one can argue that conceptually the 1996 Telecommunications Act represents punctuated equilibria (U.S. telecommunications law was revised to promote competition) as explained earlier the telecommunications policy system had not been stable for many years.

I investigated whether or not interest groups, media attention, and public opinion influence the policy agenda and determined that aspects of each theory are germane to the universal service case. Kingdon is correct that government officials and specialists are active players in the policy process. Nevertheless, quantitative indicators and qualitative information support the success of interest groups and the media in promoting or constraining the telecommunications policy agenda (and preferred policy alternatives) as described by Baumgartner and Jones.

In addition, Kingdon and Baumgartner/Jones have a different approach to the normative matter of citizen representation or public opinion on agenda-setting. Public opinion has little

Moreover universal service was not the only telecommunications target on the conservative agenda in 1995. In May the PFF, in collaboration with the Heritage Foundation, the American Enterprise Institute, Citizens for a Sound Economy, The Manhattan Institute and the Hudson Institute released a report calling for the abolishment of the FCC. Gingrich announced that he wanted to phase out the FCC in three to five years at most because its overzealous regulation stifled innovation and competition (Mills, 1995, F3). Gingrich had a number of conflicts with the FCC in 1994 and 1995. One major point of contention was the disclosure that Gingrich had accepted a \$4.5 million advance from Rupert Murdoch's publishing firm HarperCollins at the same time Murdoch had business (telecommunications policy revision) pending before the FCC and Congress (Kovaleski, 1994, A1). Although Gingrich returned the advance, the incident appeared to focus the interest of organizations like the PFF and the CSE on the FCC and the pending legislation.

In summary, the universal service case study indicates that the potential of the mass media and foundation-funded research and programs to influence the policy agenda through relationships with political elites is significant. The reverse is also true that politicians use the media and advocacy groups who share their values to advance policy issues. Kingdon ignores or denies the agenda-setting involvement of participants outside of government. Baumgartner and Jones primary thesis is that "organization can mobilize bias, but there is no guarantee of its permanence" (Baumgartner and Jones, 1993, 249). Baumgartner and Jones state that, "the American system seems to provide little respect for those who are able to construct policy monopolies" (Baumgartner and Jones, 1993, 249). In Baumgartner and Jones' view privileged elites only remain in control for limited periods of time so the problem of elite power is not of great concern since the system is self-correcting.

To explain the dynamics of agenda-setting in the universal service case requires an understanding of why the policy changed and where the ideas (expert information and various issue definitions and policy images) came from that informed the policy-making deliberations. "To define an issue is to make an assertion about what is at stake and who is affected, and therefore, to define interests and the constitution of alliances. There is no such thing as an apolitical problem definition" (Stone, 1997, 231). Finally, connections need to be made between interests, alliances, agenda-setting, decision-makers and the ideals of democratic governance. In

chapter seven I propose elements of a new agenda-setting theory that integrates normative considerations with aspects of Kingdon and Baumgartner and Jones' established theory.

Chapter 7

FINDINGS AND IMPLICATIONS

This dissertation has tested a number of the assumptions that serve as a basis for the agenda-setting theories of John Kingdon and Frank Baumgartner/Bryan Jones. I want to emphasize that the agenda-setting theory reviewed in chapter two, in particular the work of Kingdon and Baumgartner/Jones, is innovative and insightful although in some regards incomplete. The lack of comprehensive, descriptive, and predictive theory reflects the complex and protean nature of the topic.

In the following pages by way of summary I address the research questions posed in chapter one and suggest elements of a new integrated model for the study of agenda-setting, which blends aspects of the Kingdon and Baumgartner/Jones theories with elements derived from the universal service case. Clearly any recommendations made on the basis of a single case are preliminary. Nevertheless, I believe that an integration of agenda-setting theories as described in the following pages, expands opportunities for further analysis. Moreover, I hope that a synthesis of Kingdon and Baumgartner/Jones' theories combined with the acknowledgement of democratic principles such as participatory governance and equal opportunity for representation will establish a link between the study of agenda-setting and democratic theory.

Research Questions

In chapter one I asked three questions:

- How is an issue like universal service selected for legislative action?
- What capacity do citizens have to influence the agenda-formation policy process particularly when complex technical issues are involved?
- How did universal service, a regulatory mandate within deregulatory legislation, remain part of the recently revised telecommunications law, and what does this paradox suggest in so far as the agenda-setting process is concerned?

In analyzing case study evidence I found that universal service was selected for legislative action because it was bound together with telecommunications legislation which, for the reasons explained in chapter three, required revisions. Although some policy-makers would have preferred a market solution (that is, the elimination of subsidized services), universal service remained an item on the decision agenda and part of the telecommunications policy revision for several reasons:

- new issue definition
- a compelling image (information superhighway salient to the broader population)
- support from a coalition of rural senators
- Presidential leadership

Citizens had little apparent interest in, or capacity as individuals to influence, the 1996 telecommunications legislation. Instead, their interests were represented by an alliance of citizen advocacy groups. That universal service policy, a regulatory mandate, endured within otherwise deregulatory legislation attests to the agenda-setting power and strategic tactics relative to issue definition of political elites (the Farm Team and the President), public interest groups (TPR), and foundations (the Benton Foundation).

Research Results: Convergence of Multiple Data Sources

In chapter four I presented a conceptual model of case study strategy based on data triangulation. The model, **Figure 4.1 – Convergence of Multiple Data Sources** (see page 64), was designed to illustrate how the variety of evidence used to examine selected universal service case study conditions come together to confirm the same phenomenon. In addition to data triangulation, analytical generalization that applied established theory of John Kingdon and Frank Baumgartner/Bryan Jones to the universal service case data was used to test assumptions about the agenda-setting process (see **Table 7.1 Kingdon, Baumgartner/Jones, Eustis: Agenda-Setting Theory** on page 182).

One fundamental difference between the Kingdon and Baumgartner/Jones' theories is whether agenda-setting is a closed process as Kingdon suggests, or whether it is subject to outside pressures, which is central to Baumgartner and Jones' thesis. In 1993, at the same time a

Table 7.1

Kingdon, Baumgartner/Jones, Eustis: Agenda-Setting Theory

	Kingdon	Baumgartner/Jones	Eustis
Research Findings 1 & 2: <i>Issue Definition/Policy Images</i>	New definitions/images capture the attention of important people	Mobilizations of previously apathetic persons.	Aspects of Kingdon and Baumgartner/Jones' theories applied. See: p. 113-115
Research Finding 3: <i>Solutions/Policy Alternative</i>	Solution generation as an intellectual process.	Argumentation and creation of a new definition that change understandings of what would be the most effective solution to a problem.	Baumgartner/Jones' theory was more relevant in the universal service case. See: p. 125
Research Finding 4: <i>Presidential Influence</i>	Presidential influence may be significant.	Presidential influence may be significant.	Kingdon and Baumgartner/Jones' theories apply. See: p. 133-134
Research Finding 5: <i>Policy Change</i>	Continual change, development and adaptation not equilibrium are the hallmark of agenda-setting.	Punctuated equilibrium.	Kingdon's description of continual change and adaptation were the hallmark of universal service agenda-setting. See: p. 146
Research Finding 6: <i>Interest Groups</i>	Interest groups often engage in negative blocking or try to insert their preferred alternative into a discussion once the agenda is set.	Interest groups play an important role in formulating questions, affecting public opinion, and defining the terms of the public debate. Positive promotion (non-contradictory argumentation) of equity values by public interest groups ultimately resulted in a successful policy alternative.	Positive promotion (non-contradictory argumentation) of equity values by public interest groups ultimately as predicted by Baumgartner/Jones resulted in a successful universal service policy alternative. See: p. 163-164
Research Finding 7: <i>Media Attention</i>	The media do not play a prominent role in agenda-setting.	"The media play an integral role ... by directing attention toward different aspects of the same issues over time and shifting attention from one issue to another." Depending on the policy issue, the media play a significant role in agenda-setting.	The media play a significant role in agenda-setting as Baumgartner/Jones suggest. See: p. 171-172
Research Finding 8: <i>Public Opinion</i>	Public opinion is rarely well informed enough to affect the policy-making.	Public opinion while one of many venues is not an influential component of agenda-setting.	Public opinion did not affect directly universal service agenda-setting as Kingdon and Baumgartner/Jones suggest. See: p. 175

new presidential administration with telecommunications policy as a priority and a new vision for universal service took office, indicators of media and congressional attention relative to universal service began to rise. As a result of this change in status I argue that universal service reached the decision agenda because of new policy understandings and symbols, an interpretation that is consistent with both Kingdon's and Baumgartner/Jones' theories. In addition, the impact of a new presidential team (Clinton-Gore's attitudes about the role of the federal government in promoting the economy and "Putting People First" theme) suggests that the policy agenda and politics are interdependent, a premise supported by Baumgartner and Jones but not by Kingdon.

Similarly Kingdon describes academics, researchers, and consultants as an important group of non-governmental actors who provide expert information and policy alternatives for congressional committees, federal agencies, and political elites. Kingdon does not directly connect academics, researchers, and consultants to the policy entrepreneur who he describes at a later point in his book as wanting to promote personal interests, values or "affect the shape of public policy" (Kingdon, 1995, 123). That said, Kingdon fails to delve deeper into what a desire to promote personal interests and values implies. To quote Sabatier, "Kingdon views policy analysts and researchers as being too apolitical, thus neglecting the role of advocacy analysis and putting too much distance between the 'policy' and the 'political' streams" (Sabatier, 1991, 151).

A content analysis of *Telecommunications Policy* articles and their authors' role in 1990s telecommunications policy-making suggests that technical policy information and solutions generated by academics, industry spokespersons, and former federal officials reflect, in a number of instances, value orientations or ideological preferences. Articles in national newspapers, the Kopp dissertation, and policy literature that describes linkages between politicians, think tanks, foundations, and public and private interests reinforces the perception that universal service policy-making involved an integration of politics, policy, and solutions. In sum, the three streams were intertwined, not separate as Kingdon describes.

Another point of contrast between the two theories concerns Kingdon and Baumgartner/Jones' models of policy change. The abrupt increase in media and congressional attention to universal service in 1992 may be interpreted as evidence of Baumgartner and Jones'

punctuated equilibria policy change model. The 1996 Act ratified changes that had already taken place with regard to competition among telecommunications providers. Moreover, Kingdon's notion that institutionalized political cycles (such as elections and regular indicators like census data) are instrumental in promoting policy change is instructive with regard to the universal service case.

Attitudes toward interest group involvement in policy-making are another major difference between the two theories. Kingdon relegates interest group influence to a minor role while Baumgartner and Jones attach great significance to interest group participation. The proposed telecommunications legislation had the potential to address a number of social inequities. Moreover, in 1994 the telecommunications and information industries represented 10 to 20% of the U.S. economy. Of this percent, local telephone services constituted approximately \$98 billion, long distance accounted for \$65 billion, and cable television amounted to \$23 billion (*CQ Almanac*, 1995, 4-3). Salisbury's definition of interests captures the activity of the groups working to influence the legislation: "It [interests] involves values and preferences. But it is the perceived or anticipated effects of policy — government action or inaction including all its symbolic forms as well as more tangible allocations — upon values that create politically relevant interests" (Salisbury, 1984, 65).

Frequency counts of interest groups mentioned in articles on universal service show a sharp rise from 1992 to 1994. These measures reveal only that during the first two years of the Clinton administration universal service received increased notice from interest groups. Interest group indicators from the media articles were reinforced by qualitative information from scholarly literature and congressional publications. For instance, articles in the *National Journal* and West and Loomis' book *The Sound of Money* contain evidence of intense activity among groups working to promote their interests and gain an advantage through revised telecommunications law.

Kingdon and Baumgartner/Jones ascribe different roles for media in policy-making as a result of their respective research. The public's only opportunity to learn about universal service was through the mass media. Journalists not only interpreted and reported on universal service and telecommunications policy deliberations but they served as telecommunications experts on

television talk shows, and actively lobbied for legislative solutions that affected their industry. Contrary to Kingdon's indicators, universal service research findings support Baumgartner and Jones' conclusions that the media plays an important role in structuring the policy process. I found evidence that the media acted not only as an intermediary between politicians and the public but also that politicians communicated directly with the public through the press.

Beyond advocacy group representation of citizen interests, I found little evidence of citizen involvement in universal service policy-making either through examination of the universal service case or in the Roper Center for Public Opinion Research data. Kingdon states that public opinion may sometimes direct government action but it more often serves as a restraint. Baumgartner and Jones, while noting that public opinion is one of many venues for the expression of policy preferences, conclude their discussion on the topic by quoting Kingdon. Public opinion as it is reflected in the national mood plays an important role by influencing politicians (Baumgartner and Jones, 1993, 248). Therefore, neither Kingdon nor Baumgartner/Jones give more than a nod to the role of public opinion and both fail to address the implications of agenda-setting for democratic theory.

Kingdon and Baumgartner/Jones: Strengths and Weaknesses

Kingdon's theory has a number of strengths such as the flexibility of his "three streams" approach. Based on the garbage can model of institutional change, Kingdon's theory accommodates the fluidity of the policy process. Other strong points include a detailed account of the government officials' interactions with the policy community and an emphasis on policy information (budget forecasts and systematic monitoring) as a catalyst for agenda change.

The garbage can model focuses on a closed system, however, which is consonant with Kingdon's view of policy-making. Thus a narrow perspective is combined with Kingdon's data, culled almost exclusively from interviews with government officials over four years. Indeed, in an essay written in 1994, Kingdon reaffirmed his position that the federal government is self-determined: "People in government are not blank slates, but instead have their own goals and strategies. One need not reify the state to see that people in government are at least somewhat autonomous" (Kingdon, 1994, 220). In summary, the strength of Kingdon's theory lies in its

analysis of agenda-setting as it takes place within government institutions. Its weakness comes from an emphasis on agenda-setting as an intellectual process, devoid of explicit political intent or public participation.

A strength of Baumgartner and Jones' approach is the duration and breadth of their data (collected for a 90-year time period from a variety of sources) and an analysis that incorporates broad contextual change with an understanding of policy-making as an interactive process. As a result, Baumgartner and Jones' explanation for long-term trends in policy-making (in particular within environmental areas such as nuclear power and pesticides) has an impressive base that connects agenda-setting and policy domains with a broader context. In addition, Baumgartner and Jones' dual mobilization thesis offers insight into the transforming effect public attitudes (enthusiasm for policy issues followed by a lack of interest in the same issue) may have on policy-making.

Baumgartner and Jones' theory is not as strong in other respects. Their insistence on a punctuated model of policy change and the lack of explicit consideration of the role values play in policy-making leaves their theory somewhat incomplete. In fact, it seems at times that Baumgartner and Jones' reach exceeds their grasp. In particular, their discussion of public opinion in the final pages of the book is cursory and relies on a summary of Stimson's work. Although Baumgartner and Jones begin their book by suggesting that agenda-setting is "a fundamental question of democracy," they fail to explore the nature of the public's impact on policy-making or the implications of a lack of public participation except indirectly through interest groups and broader systemic change (Baumgartner and Jones, 1993, 8).

I was encouraged to find that recent work by both Kingdon and Baumgartner reconsiders previous conclusions. For instance, in an essay following publication of the first edition of *Agendas, Alternatives, and Public Policies* Kingdon suggests that a weakness of his methodology which relied heavily on interviewing elites "... is the ability to take in a considerable sweep of history" (Kingdon, 1993, 217). He went on to say that a promising area for further research was: "How do dominant ideas change? What drives those changes? What public policy consequences ensue?" (Kingdon, 1993, 226).

Baumgartner, in a book written with Beth Leech, questions why scholars limit the study of interest groups to membership organizations (Baumgartner and Leech, 1999, 30-33). As I found in my investigation of universal service policy, a narrow definition of interests limits explanatory possibilities. Baumgartner and Leech also point out the need for scholars to incorporate normative issues of representation and participation into any study of groups:

In policymaking studies where we observe interest groups in their relations with government, however, there is no clear ideal with which to compare observed levels of participation. Scholars are concerned with diversity of participation, how this diversity changes over time, and how it differs from issue to issue. Few have paid attention to such questions as to what degree of diversity would be appropriate, how to balance expertise and knowledge against demographic representivity, or how public officials may play a role in guaranteeing public representation, for example (Baumgartner and Leech, 1999, 41).

I agree with Baumgartner and Leech that studies of agenda-setting need to address questions of public participation.

Limitations of the Dissertation

An overriding limitation (authorial frustration may be a better description) of this dissertation is the breadth of the eight research objectives. Almost every objective relates to a subfield of political science and policy studies such as the presidency, Congress, interest groups, cycle theory, public opinion theory, and political communication. It was not possible to cover the literature in each area, much less explore each area fully in terms of universal service policy-making. In fact, an entire dissertation (in the course of collecting evidence, I found several) could be written on aspects of each research objective. A related matter is the dissertation's structure, which required analysis of eight research objectives as applied to two theories. The result is a document that is to a certain extent repetitious.

In addition, a number of the limitations relative to Kingdon's and Baumgartner/Jones' methods and analysis also pertain to this dissertation. Although Kingdon and Baumgartner/Jones' theories are based on empirical evidence, their evidence does not strongly support all aspects of their conclusions. For example, Baumgartner and Jones present no "systematic evidence" for interests groups' effect on agenda-setting. Similarly, Kingdon's

conclusions in many cases are supported by a brief quote citation from an interview with an accompanying comment on the matter from a personal perspective (Smith, 1995). In this dissertation, I also present anecdotal evidence in the form of citations from secondary sources rather than systematic evidence to support a number of conclusions. However, as described in chapter four, I rely on the convergence of multiple data sources rather than quantitative data to build a case.

Another limitation related to data coding was the need to combine evaluative measures with frequency counts; that is, the positive/negative/neutral tone of media attitudes toward universal service with the numbers of articles per year containing telephone industry references. Moreover, references to the RBOCs are not tracked at all because of a lack of resources and time constraints. Thus, it is possible, that media attention to the telephone industry as measured in these pages is over, or more likely, under-estimated.

Regarding internal validity, pattern matching in the universal service case suggests rather than confirms causal relationships. Robert Yin advises that statistical verification is not necessarily relevant in an explanatory case study (Yin, 1994, 110). Nevertheless, beyond indications of increased attention over time, this analysis does not provide a direct link between interest group involvement and media influence relative to universal service policy status on the decision agenda.

Directions for Future Research: Towards An Integrated Model of Agenda-Setting

Any proposal to develop a causal theory for agenda-setting or, indeed, for policy-making in general, is a problematic undertaking because of the complexity and fluidity of the process. Nevertheless, as promised in chapter one I want to begin to address the challenging task of theory building by offering a taxonomic framework that captures levels of the policy process across different policy types (Sabatier, 1991). One difficulty with formulating such a theory is that criteria that are too specific (such as Kingdon's single-minded focus on federal officials) fail to take into account the breadth of the policy process. Moreover, criteria that lack specificity (such as Baumgartner and Jones' punctuated equilibrium model) are inadequate and fail to wholly describe the agenda-setting process.

A synthesis of the strengths of Kingdon and Baumgartner/Jones' theories, however, is a first step toward a new and more adequate agenda-setting theory. With the exception of Kingdon's finding that the media do not play an important role in agenda-setting, all aspects of the Kingdon and Baumgartner/Jones' theories have nuances that are relevant to agenda-formation. Outcomes in the universal service case suggest that a new model based on integration and modifications of Kingdon and Baumgartner/Jones' theories may offer unique insights. The following statements (see **Table 7.2 – Toward a Synthesis of Agenda- Setting Theory: Central Propositions**) based on Kingdon and Baumgartner/Jones' work, as filtered through experience with the universal service case represent a first step in the development of a new integrated model of agenda-setting.

Table 7.2

Toward a Synthesis of Agenda-Setting Theory: Central Propositions

<ul style="list-style-type: none"> ▪ Issue redefinition when accompanied by compelling policy images generates increased attention from the media, political elites, and previously uninvolved groups, thereby mobilizing additional participants.
<ul style="list-style-type: none"> ▪ A problem that reaches the national decision agenda is often dependent on the value preferences and political orientations (beliefs) of policy-making participants.
<ul style="list-style-type: none"> ▪ Presidential influence can be decisive in agenda-setting.
<ul style="list-style-type: none"> ▪ Agenda change is dependent on conditions (institutional, temporal, historical, technological, and societal) inside and outside of the federal government.
<ul style="list-style-type: none"> ▪ When agenda-setting involves major industries, interest groups participate actively in the process and influence the terms of the debate.
<ul style="list-style-type: none"> ▪ Mass media play a significant role in the policy process as they direct attention from one issue to another and shape understandings of policy issues.

In addition, I want to propose two principles for any analysis of the policy process. The first principle concerns the level of aggregation at which the analysis is taking place. Many of the shades of difference that exist among the Kingdon, Baumgartner/Jones, and universal service research findings have to do with the fact that the policy cases covered various time periods from different perspectives and focused on different levels of detail. In addition to specifying the level of aggregation at the outset of an analysis, definitions of key concepts such as interest groups,

and policy communities need to be defined (Baumgartner and Leech, 1998; Salisbury, 1984).

The latter is a practice that Kingdon follows to a greater degree than Baumgartner and Jones. As a result Kingdon's arguments are more clearly articulated and understandable.

Table 7.3

New Elements of Agenda-Setting Theory

▪ Agenda-setting is frequently influenced by purposeful pre-agenda activity that includes funded research and publications, which provide expert information for decision-makers.
▪ An understanding of the linkages between problems, policy alternatives, and politics may lead to critical insights regarding agenda-setting.
▪ Democratic theory suggests that public preferences and the participation of a diverse group of citizens ought to be incorporated into policy-makers negotiations relative to agenda-setting.

These central elements of an integrated theory (see **Table 7.3 — New Elements of Agenda-Setting Theory**) suggest opportunities for future research. Of particular interest, in light of the recent universal service policy process, are contextual factors that affect agenda-setting. For example at the present (2000), pre-agenda processes such as the funded research of foundations and think tanks, which provide information for politicians and government officials, appear to play a major role in advising the telecommunications policy community. Likewise, although interdependencies among problems (issues), policy alternatives (solutions), and politics have always existed, agenda-setting theory with a focus on such interactions (similar to Sabatier and Jenkins-Smith Advocacy Coalition Framework) seems to have promising possibilities relative to explaining and predicting organizational, group and institutional behavior. Finally, Baumgartner and Jones introduce the topic of agenda-setting by stating that it is a fundamental question of democracy yet they fail to develop a connection between agenda-setting and democratic theory. A new integrated theory would provide an analytic capacity to address this oversight.

Overall, the universal service case data supports the conclusion that an integrated and expansive theory with attention to pre-agenda processes, sources of technical information, relationships among problems, policy alternatives, and politics, and in light of democratic theory

offers a more complete foundation for studying agenda-setting. In particular, an integrated theory suggests a framework for examining why issues become part of the national policy agenda with explicit attention to the need to build capacity for informed citizen involvement. In addition, the ability of citizens to influence the political process is an important democratic ideal.

Conclusions

At present those persons without access to a telephone are disadvantaged in dealing with the most basic aspects of life, such as obtaining employment or social services, communicating in emergencies, and maintaining contact with family and friends. In the future, as more services and information are delivered through telecommunications networks, the social and economic costs to those without the benefit of network access will increase. Yet the universal service policy debate failed to elicit much interest from the public at-large.

Baumgartner and Jones conclude their discussion of public opinion by paraphrasing an often-quoted remark by Schattschneider: “Why study the audience when the actors are up on the stage?” (Baumgartner and Jones, 1993, 248). The audience needs to be studied, however, if for no other reason than democracy continues to have relevance and usefulness. Put differently, members of the audience affect the theatre through their expectations and their response to performances. As theatre historian Oscar Brockett has written: “If an audience member is to exercise his power wisely he must first try to *understand that theatre* and how it works. Second, he should develop the ability to *judge the relative merits of plays and theatrical performances*. Finally confident in his understanding and judgment, he should *work for that which seems of value to him*” (Brockett, 1969, 21). According to Brockett a healthy theatre includes a diversified, informed audience that exerts itself on its behalf.

The policy scholar is uniquely positioned through the development of better theories not only to pose questions but also to suggest answers to the problem of building capacity and encouraging public participation. An understanding of the agenda-setting process is a first step toward encouraging citizen participation. A second step is to investigate and propose solutions regarding the ways complex technical policy such as universal service may be made

comprehensible and relevant to the public. This dissertation has suggested how each of these aims can illuminate the other.

A Selected Bibliography

Abbate, Janet. *Inventing the Internet*. Cambridge, Massachusetts: MIT Press, 1999.

Advertising Age. "The Wall Street Journal is the most-read publications among top opinion leaders in the U.S." 24 Sep 1990: 20.

Alliance for Public Technology. "Connecting Each to All: A Telecommunications Platform for the Information Age. [cited on 5 Oct 1999] available from:
<http://www.appt.org/publica/each2all.html>

Anderson, James L. "The Struggle to Reform Regulatory Procedures." *Policy Studies Journal*. 26 (3): 482-498.

Andrews, Edmund L. "Bill to Revamp Communications Dies in Congress." *New York Times*. 23 Sep 1994: 1.

_____. "Kerrey Vows to Stall Telecommunications Bill: Seeking Changes, Senator Calls It a Contract With Corporations." *New York Times*. 9 June 1995: D2.

_____. "The Nation: It's Confounded Change Calling Again, Honey!" *New York Times*. 26 Dec 1993: Section 4, 3.

Arnheim, Louise A. "Will the Telecom Debate Blow the Lid Off Capitol Hill?" *Broadcasting*. 21 Jan 1991: 26-30.

Artle, Roland and Christian Averous. "The Telephone System as a Public Good: Static and Dynamic Aspects." *The Bell Journal of Economics and Management Science*. Spring 1973: 89-100.

Babbie, Earl. *The Practice of Social Research*. 8th ed. Boston: Wadsworth Publishing Co., 1998.

Baumgartner, Frank R. and Bryan Jones. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press, 1993.

_____. and Beth L. Leech. *Basic Interests: The Importance of Groups in Politics and Political Science*. Princeton: Princeton University Press, 1998.

Benton Foundation. "About Benton." [cited 2 January 2000] available from:
<http://www.benton.org/About/foundation.html>

- _____. "Universal Service and the Information Superhighway." *Policy Briefing* #1. [cited 22 Apr 1999] available from: <http://www.benton.org/Library/Universal/brief1.html>
- Birkland, Thomas A. "Focusing Events, Mobilization, and Agenda Setting." *Journal of Public Policy*. 18: 53-74.
- Blackman, Colin R. "Universal Service: Obligation or Opportunity." *Telecommunications Policy*. 19: 171-176.
- Bosso, Christopher. "The Contextual Bases of Problem Definition." In *The Politics of Problem Definition*. Edited by David A. Rochefort and Roger W. Cobb, 182-203. Lawrence, Kansas: University of Kansas Press, 1994.
- Brock, Gerald W. *Telecommunications Policy for the Information Age*. Cambridge: Massachusetts: Harvard University Press, 1994.
- Brockett, Oscar. *The Theatre: An Introduction*. 2nd Ed. New York: Holt, Rinehart, and Winston, Inc., 1969.
- Brown, Duncan Horner. *Promoting the Idea of Broadcast Regulation: An Alternative View of the Distribution of Power in the Communications Policy Making Process*. Ph.D. diss., University of Illinois at Champaign-Urbana, 1988.
- Browne, William P. *Cultivating Congress: Constituents, Issues, and Interests in Agricultural Policy Making*. Lawrence, Kansas: University of Kansas Press, 1995.
- _____. *Groups, Interests, and U.S. Public Policy*. Washington, D.C.: Georgetown University Press, 1998.
- Browning, Graeme. "Infohighway Collusion?" *National Journal*. 26 Feb 1994: 480-482.
- Browning, John. "Universal Service (An Idea Whose Time Is Past)." *Wired Online*. 1993. [cited 22 Oct 1998] available from: http://www.wired.com/wired/archive/2.09/universal.access_pr.html
- Burgess, John and Evelyn Richards. "Head of Pentagon High-Tech Agency Is Reassigned." *Washington Post*. 21 Apr 1991: D10.
- Burnham, David. "House Bill Would Limit Access Fees." *New York Times*. 28 Sep 1983: D1.
- Calabrese, Andrew and Donald Jung. "Broadband Telecommunications in Rural America: Emerging Infrastructures for Residential Service." *Telecommunications Policy*. Apr 1992: 225-236.

- Cairncross, Frances. *The Death of Distance: How the Communications Revolution Will Change Our Lives*. Boston: Harvard Business School, 1997.
- _____. "Telecommunications Survey: The Death of Distance." *Economist*. 30 Sep 1995: 5-28.
- _____. "Telecommunications Survey: A Connected World." *Economist*. 13 Sep 1997: 3-34.
- Cardella, Ruth. "Texas Digital Divide: Telephone Competition Promise Falls Short." *Consumers Union: Nonprofit Publisher of Consumer Reports*. 19 Feb 1999: 1-5. [cited on 13 Nov 1999] available from: <http://www.consumersunion.org/other/localp1sw299.htm>
- Chapman, Gary. "Election '92: Push Comes to Shove on Technology Policy." *Technology Review*. Nov/Dec 1992: 43-49.
- Chen, Kathy. "FCC's Plan to Link Schools, Libraries To the Net Is Upheld by the Appeals Court." *Wall Street Journal Interactive Edition*. 2 Aug 1999: 1-2. [cited 7 Nov 1999] available from: <http://interactive.wjs.com/>
- Clausing, Jeri. "Foundation Gives \$1 Million for Public Internet Efforts." *New York Times on the Web*. 2 Nov 1999: 1-6. [cited 7 Nov 1999] available from: <http://www.nytimes.com/>
- _____. "Program to Wire Schools and Libraries is Under Attack." *New York Times on the Web*. 14 Feb 1999: 1-4. [cited 22 Apr 1999] available from: <http://www.nytimes.com/>
- _____. "Report Says U.S. Program to Wire Schools May Fall Short." *New York Times on the Web*. 10 May 1998: 1-2. [cited 22 Apr 1999] available from: <http://www.nytimes.com/>
- Clinton, William J. and Albert Gore, Jr. *Technology for America's Economic Growth: A New Direction to Build Economic Strength*. Washington, D.C.: White House, 22 Feb 1993. [cited 27 Apr 1999] available from: <http://www.pub.whitehouse.gov/>
- _____. *Putting People First: How Can We All Change America*. New York: Times Books, 1992.
- Cloud, David S. "Supercomputers Crunch Bits (And \$\$\$) by the Billions." *Congressional Quarterly*. 14 Oct 1989: 2697-2699.
- Cobb, Roger W. and Charles D. Elder. *Participation in American Democracy: The Dynamics of Agenda-Building*. Baltimore, Maryland: Johns Hopkins Press, 1983.
- _____. "The Politics of Agenda-Building: An Alternative Perspective for Modern Democratic Theory." *Journal of Politics*. 33 (1971): 892-915.
- _____. Jennie-Keith Ross and Marc Howard Ross. "Agenda Building as a Comparative Political Process." *American Political Science Review*. 70 (1976): 126-138.

- Cohen, Jeffrey E. *The Politics of Telecommunications Regulation: The States and Divestiture of AT&T*. Bureaucracies, Public Administration and Public Policy. Armonk, NY: M.E. Sharpe, 1992.
- _____. *Presidential Responsiveness and Public Policy-Making. The Public and the Policies That Presidents Choose.* Ann Arbor: University of Michigan Press, 1997.
- _____. "Presidential Rhetoric and the Public Agenda." *American Journal of Political Science*. Feb 1995: 87-103.
- Cohen, Michael D., James G. March, and Johan P. Olsen. "A Garbage Can Model of Organizational Choice." *Administrative Science Quarterly*, Mar 1972: 1-25.
- Collier, Kenneth E. *Between the Branches: The White House Office of Legislative Affairs*. Pittsburgh: University of Pittsburgh Press, 1997.
- Communications Daily*. "BellSouth to Receive \$97 Million in NECA Pool Reimbursements." 30 Oct 1986: 3.
- _____. "Chicken-Little Like Attitude; NTIA Inquiry Seen as Too Heavily Weighted to Telcos." 11 Apr 1990: 3-6.
- _____. "NARUC Committee Tables Policy Statement on Dole Bill." 31 Jul 1986: 2.
- _____. "State Regulators Attack Senate Telecom Bill." 31 Aug 1994: 1.
- _____. "Telecommunications Plank Inserted into Republican Platform." 15 Aug 1988: 2.
- Congressional Quarterly Almanac*. All relevant materials, 1986-1995.
- Congressional Quarterly's Federal PACs Directory 1998-1999*. Washington, D.C.: Congressional Quarterly, Inc., 1998.
- Congressional Quarterly Weekly Report*. All relevant articles. 7 Jan 1986-10 Feb 1996.
- Congressional Record*. All relevant information. 4 Jan 1986-10 Feb 1996 available from: <http://thomas.loc.gov/query.html>
- CQ Almanac 1994*. "Telecommunications." Washington, D.C.: Congressional Quarterly, Inc., 1995: 203-216.
- Cook, Fay Lomax, Tom R. Tyler, Edward G. Goetz, Margaret T. Gordon, David Protess, Donna R. Leff, and Harvey L. Molotch. "Media and Agenda Setting: Effects on the Public,

- Interest Group Leaders, Policy Makers, and Policy. *Public Opinion Quarterly*. 47, 1983: 16-35.
- Cook, Timothy E. *Governing with the News: the News Media as a Political Institution*. Chicago: University of Chicago Press, 1998.
- _____. *Making Laws and Making News: Media Strategies in the U.S. House of Representatives*. Washington, D.C.: The Brookings Institute, 1989.
- Cooper, Ann. "Fowler's FCC Learns Some Hard Lessons About What It Means to Be 'Independent'." *National Journal*. 6 Apr 1985: 732-736.
- Cooper, Mark. "Universal Service: A Historical Perspective and Policies for the 21st Century." A joint publication of the Benton Foundation and the Consumer Federation of America, 9 Dec 1996. [cited 2 Nov 1998] available from: <http://www.benton.org/Library/Prospects/prospects.html>
- _____. and Gene Kimmelman. "The Digital Divide Confronts the Telecommunications Act of 1996: Economic Reality Versus Public Policy." Feb 1999. [cited on 13 Nov 1999. available from: <http://www.stateandlocal.org/new.html>
- Crandall, Robert W. *After the Breakup: U.S. Telecommunications in a More Competitive Era*. Washington, D.C.: The Brookings Institute, 1991.
- Creswell, John W. *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks, Ca.: Sage Publications, 1998.
- Crozier, Michel. *The Bureaucratic Phenomenon*. Chicago: The University of Chicago Press, 1964.
- Denton, Robert E. Jr. and Gary C. Woodward. *Political Communications in America*. 2nd Ed. Praeger Series in Political Communication. New York: Praeger, 1990.
- Derthick, Martha and Paul J, Quirk. *The Politics of Deregulation*. Washington, D.C.: The Brookings Institute, 1985.
- Dodd, Lawrence C. "The New American Politics: Reflections on the Early 1990s." In *The New American Politics*. Edited by Bryan D. Jones, 257-274. Boulder, CO: Westview Press, 1995.
- _____. "Political Learning and Political Change: Understanding Development Across Time." In *The Dynamics of American Politics: Approaches and Interpretations*. Edited by Lawrence C. Dodd, 331-361. Boulder, CO: Westview Press, 1994.

- Dordick, Herbert S. "The Origins of Universal Service: History as a Determinant of Telecommunications Policy." *Telecommunications Policy*. Jun 1990: 223-231.
- Downs, Anthony. "Up and Down with Ecology: An Issue Attention Cycle." *Public Interest*, Summer 1972: 38-50.
- Drew, Elizabeth. *Showdown: The Struggle Between the Gingrich Congress and the Clinton White House*. New York: Simon & Schuster, 1996.
- Drucker, Peter F. "Beyond the Bell Breakup." *Public Interest*. Fall 1984: 3-27.
- Dugan, Robert E., Joan F. Cheverie, and Jennifer L. Souza. "The NII: For the Public Good." *Journal of Academic Librarianship*. Mar 1996: 133-140.
- _____. Jennifer L. Souza, and Timothy V. Cash. "Cycles, a Crystal Ball, and the Telecommunications Act of 1996-Been There, Done That." *Journal of Academic Librarianship*. Nov 1996: 457-461.
- _____. And Judith F. Trump. "The Telecommunications Act of 1996: Was It Good for You, Too?" *Journal of Academic Librarianship*. Jul 1999: 306-310.
- Economist*. "Industrial Policy; Beheaded." 28 Apr 1990: 27.
- Edelman, Jacob Murray. *The Symbolic Uses of Politics*. Urbana, IL: University of Illinois Press, 1964.
- Edwards, George C. "Measuring Presidential Success in Congress: Alternative Approaches." *Journal of Politics*. May 1985: 667-685.
- Egan, Bruce L. "Building Value through Telecommunications: Regulatory Roadblocks on the Information Superhighway." *Telecommunications Policy*. 18: 573-587.
- _____. *Information Superhighways: The Economics of Advanced Public Communication Networks*. Boston: Artech House, 1991.
- _____. *Information Superhighways Revisited: The Economics of Multimedia*. Boston: Artech House, 1996.
- Eid, Troy A. "The National Information Infrastructure: Democratizing the New Millennium." *Vital Speeches of the Day*. 61. 15 Aug 1995: 650-654.
- Elder, Charles D. and Roger W. Cobb. *The Political Uses of Symbols*. New York: Longman, 1983.

Entman, Robert M. "How the Media Affect What People Think: An Information Processing Approach." *Journal of Politics*. May 1989: 347-370.

Executive Order 12864 of September 15, 1993: United States Advisory Council on the National Information Infrastructure. Washington, D.C., 17 Sep 1993. [cited 23 Apr 1999] available from: <http://www.pub.whitehouse.gov/>

Federal Communications Commission. 63rd FCC Annual Report. FY1997. [cited 1 February 2000] available from: <http://www.fcc.gov/>

_____. "FCC Reforms High-Cost Support to Ensure the Preservation and Advancement of Universal Service." *News*. 21 Oct 1999: 1-5. [cited 7 Nov 1999] available from: http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/1999/

Fields, Wayne. *Union of Words: A History of Presidential Eloquence*. New York: The Free Press, 1996.

Fisher, Frank. *Technology and the Politics of Expertise*. Newbury Park, CA: Sage Publications, 1990.

Flamm, Kenneth. "Creating the Computer: Government, Industry, and High Technology." Washington, D.C.: The Brookings Institution, 1988.

Foley, Michael. "Clinton and Congress." *The Clinton Presidency: The First Term, 1992-1996*. Edited by Paul S. Herrnson and Dilys M. Hill, 22-42. Southampton Studies in International Policy. New York: St. Martin's Press, 1999.

_____. "The President and Congress." *The Bush Presidency: Triumphs and Adversities*. Edited by Dilys M. Hill and Phil Williams, 44-61. New York: St. Martin's Press, 1994.

Fowler, Mark S. "How Washington Corrupts Telecom." *Wall Street Journal*, 11 Oct 1995: A14.

Fuhr, Joseph, Jr. "Telephone Subsidization of Rural Areas in the USA." *Telecommunications Policy*. Jun 1990: 183-188.

Galbaith, John Kenneth. *Economics and the Public Purpose*. Boston: Houghton Mifflin, 1973.

Gann, David. "Comeback Kid." *New Republic*. 1 Nov 1999: 24-27.

Gersick, Connie J. G. "Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm." *Academy of Management Review*. 16 (1991): 10-36.

- Gilder, George. "Congress' Two Trillion Dollar Opportunity: Testimony Before the Senate Commerce Committee, 2 March 1995." [cited 26 Apr 1999] available from: <http://www.discovery.org/w3/discovery.org/Gilder/ggtstmny.html>
- Gitlin, Todd. *The Whole World Is Watching: Mass Media in the Making & Unmaking of the New Left*. Berkeley: University of California Press, 1980.
- Glynn, Carroll J. et al. *Public Opinion*. Boulder, CO: Westview Press, 1999.
- Gore, Albert, Jr. Current Biography Yearbook 1987. 211-214.
- Gore, Albert, Jr. "The National Information Infrastructure: Information Conduits, Providers, Appliances, and Consumers." *Vital Speeches of the Day*. 60. 1 Feb 1994: 229-233.
- _____. "Letters to the Editor: We're All Going to Be Connected." *Wall Street Journal*. 28 Feb 1994: A15.
- Griffith, Jane Bortnick and Marcia S. Smith. *The Information Superhighway and the National Information Infrastructure (NII)*. CRS Report for Congress. Washington, D.C.: Congressional Research Service, 17 Feb 1994, 1-6.
- Grossman, Michael Baruch and Martha Joynt Kumar. *Portraying the President: The White House and the News Media*. Baltimore: Johns Hopkins University Press, 1981.
- Hadden, Susan G. "Must Phone Rates Block Information Highway?" *New York Times*. 25 May 1994: A20.
- _____. "Universal Service Policies for the Public Interest Sector." Benton Foundation. *Working Paper #3*. [cited 19 Apr 1999] available from: <http://www.benton.org/Library/PolicyOps/working3.html>
- Havick, John J. "Technological Change and Policy Dilemmas." In *Communications Policy and the Political Process*. Edited by John J. Havick, 3-23. Westport, CT: Greenwood Press, 1983.
- Hayes, Michael T. *Lobbyists and Legislators: A Theory of Political Markets*. New Brunswick, New Jersey: Rutgers University Press, 1981.
- Heclo, Hugh. "Issue Networks and the Executive Establishment." In *The New American Political System*. Edited by Anthony King, 87-124. Washington, D.C.: American Enterprise Institute for Public Policy, 1978.
- Heinz, John P., Edward O. Laumann, Robert L. Nelson, and Robert H. Salisbury. *The Hollow Core: Private Interests in National Policy Making*. Cambridge, MA: Harvard University Press, 1993.

- Hilgartner, Stephen and Charles L. Bosk. "The Rise and Fall of Social Problems: A Public Arenas Model." *American Journal of Sociology*. 1988 (94): 53-78.
- Hill, Dilys, M. "The Clinton Presidency: the Man and His Times." *The Clinton Presidency: The First Term, 1992-1996*. Edited by Paul S. Herrnson and Dilys M. Hill, 1-21. Southampton Studies in International Policy. New York: St. Martin's Press, 1999.
- _____. and Phil Williams. "Introduction: The Bush Administration -An Overview." *The Bush Presidency: Triumphs and Adversities*. Edited by Dilys M. Hill and Phil Williams, 1-16. Southam. New York: St. Martin's Press, 1994.
- Hollifield, Cheryl Ann. *Media Performance in the Policy Arena: A Comparative Analysis of Trade Press and Newspaper Coverage of the National Information Infrastructure Proposal*. Ph.D. diss., Ohio State University, 1995.
- Hollings, Ernest. "The 'Information Age' Will Require New Laws to Protect Public Interest, Ensure Competition." *Roll Call*. 21 March 1994. [cited 22 August 1999] available from: <http://www.web.lexis-nexis.com/univers>
- Horrigan, John B. and Lodis Rhodes. "The Evolution of Universal Service in Texas." Alliance For Public Technology. [cited 6 Oct 1999] available from: <http://www.appt.org/policy/lbjbrief.html>
- Horwitz, Robert Britt. *The Irony of Regulatory Reform: The Deregulation of American Telecommunications*. New York: Oxford University Press, 1989.
- House Document no. 109, 73rd Cong., 2nd sess.* In *Address of the President of the United States Delivered Before a Joint Session of Two Houses of Congress*. Washington, D.C.: GPO, 1934: 3-6.
- Huber, Peter W. "Regulatory Chokehold: The Lessons of AT&T's Cellular Move." *Wall Street Journal*. 7 Sep 1993: A16.
- _____. Michael K. Kellogg, and John Thorne. *The Telecommunications Act of 1996*. Boston; Little, Brown and Company, 1996.
- Hundt, Reed. "The Telcom Act, the Internet, and Higher Education." *EDUCOM Review*. Nov/Dec 1999: 15-18, 48-51. This speech was presented on 29 Apr 1999 at the *Networking '99* conference in Washington, D.C.
- Huth, Virginia and Stephen B. Gould. *The National Information Infrastructure: The Federal Role*. CRS Report for Congress. Washington, D.C.: Congressional Research Service, 24 Sep 1993, 1-16.

Information Infrastructure Task Force. *The National Information Infrastructure: Agenda For Action*. Washington, D.C., 1993. [cited 26 Apr 1999] available from: <http://metalab.unc.edu/nii/toc.html>

Information Please Almanac. 1986-1998. Boston: Houghton Mifflin Company.

Irving, Larry, Michelle C. Farquhar, and Joseph L. Gattusco. *Falling through the Net: A Survey of the "Have Nots" in Rural and Urban America*. Jul 1995. [cited 22 Oct 1998] available from: <http://www.ntia.doc.gov/ntiahome/fallingthru.html>

Irwin, Manley R. "The Telephone Industry. In *The Structure of American Industry*. 6th ed. Edited by Walter Adams, 298-318. New York: MacMillan Publishing Co., Inc. 1982.

Isikoff, Michael. "House Blocks Telephone Access Fees." *Washington Post*. 11 Nov 1983: D8.

Jacobs, Lawrence R. and Robert Y. Shapiro. "Public Opinion, Institutions, and Policy Making." *PS: Political Science & Politics*. Mar 1994: 9-17.

Jacobson, Louis. "Tanks on the Roll. *National Journal*. 8 Jul 1995: 1767-1771.

Jenkins-Smith, Hank C. and Paul A. Sabatier. "Evaluating the Advocacy Coalition Framework." *Journal of Public Policy*. 14, no. 2, 1994: 175-203.

Jones, Bryan D. *Reconceiving Decision-Making in Democratic Politics: Attention, Choice, and Public Policy*. Chicago: University of Chicago Press, 1994.

Jones, Charles O. *An Introduction to the Study of Public Policy*. 3rd ed. Belmont, CA: Brooks/Cole Publishing Company, 1984.

_____. "A New President, a Different Congress, a Maturing Agenda." In *The Reagan Presidency and the Governing of America*. Edited by Lester M. Salomon and Michael S. Lund. 261-287. The Changing Domestic Priorities Series. Washington, D.C.: The Urban Institute Press, 1984.

Jordan-Zachery, Julia Sheron. *Agenda Formation: How Symbols Shape Public Policy*. Ph.D. diss., University of Connecticut, 1997.

Judis, John B. "The Pressure Elite: Inside the Narrow World of Advocacy Group Politics." *The American Prospect*. 1992: 15-29.

Kahin, Brain, ed. *Information Infrastructure Sourcebook*. Version 3.0. Volume 1-2. Cambridge: Information Infrastructure Project. Science, Technology and Public Policy Program. John F. Kennedy School of Government. Harvard University, 1994.

- Kapor, Mitchell. "Where Is the Digital Highway Really Heading? The Case for a Jeffersonian Information Policy." *Wired Archive*. Jul/Aug 1993: 1-13. [cited 5 Mar 1999] available from: <http://www.wired.com/wired/archive/1.03/kapor.on.nii.html>
- Kehoe, Thomas Jose. *Federal Communications Commission Regulation of the American Telephone & Telegraph Company 1965-74*. Ph.D. diss., New York University, 1978.
- Kelly, Sean Q. "Punctuated Change and the Era of Divide Government." *New Perspectives on American Politics*. Edited by Lawrence C. Dodd and Calvin Jillson, 162-190. Washington, D.C.: CQ Press, 1994.
- Kernell, Samuel. *Going Public: New Strategies of Presidential Leadership*. 3rd ed. Washington, D.C., CQ Press, 1997.
- Kerr, Thomas J. "Senator Gore Backs School Network." *School and College*. Aug 1990: 27.
- Kingdon, John W. *Agendas, Alternatives, and Public Policy*. 2nd ed. New York: HarperCollins College Publishers, 1995.
- _____. "Agendas, Ideas, and Policy Change." In *New Perspectives on American Politics*. Edited by Lawrence C. Dodd and Calvin Jillson, 215-229. Washington, D.C.: CQ Press, 1994.
- _____. "Politicians, Self-Interest, and Ideas." In *Reconsidering the Democratic Public*. Edited by George E. Marcus and Russell L. Hanson, 73-85. University Park, PA: Pennsylvania State University Press, 1993.
- Kopp, Katharina. *The Role of Private Philanthropic Foundations in Communications Policy Making. Defining the 'Public Interest: the Ford and Markle Foundations' Influence on Policy Making at the Federal Communications Commission*. Ph.D. diss., University of Pennsylvania, 1997.
- Kovaleski, Serge F. "Gingrich to Relinquish Book Advance: Next Speaker Says He Doesn't Want \$4.5 Million Deal to Distract Congress." *Washington Post*. 31 Dec 1994: A1.
- Kriz, Margaret E. "Breaking Away." *National Journal*. 24 Sep 1988: 2413.
- _____. "Communications Focus: Hot and Cold." *National Journal*. 7 Jul 1989: 1897.
- _____. "Ganging Up on the Bells." *National Journal*. 1 Sep 1990: 2068-2071.
- _____. "Reaching for New Lines: AT&T Is Making Hit-And-Miss Connections in the Telecommunications Market and Is Still Twisted in Post-Divestiture Disputes." *National Journal*. 29 May 1988: 1404-1409.

- ____. "Ringing the Bells." *National Journal*. 4 Feb 1989: 272-277.
- Landay, Jerry M. "The Mass-Media Gold Rush," *Christian Science Monitor*, 2 Jun 1995: 20.
- Lee, Frances E. and Bruce L. Oppenheimer. *Sizing Up the Senate: The Unequal Consequences of Equal Representation*. Chicago: University of Chicago Press, 1999.
- Lewyn, Mark. "Senator Dangerfield? Why Pressler May Be in over his Head in the Telecom Wars." *Business Week*. 27 Feb 1995: 41.
- Light, Paul C. *The President's Agenda: Domestic Policy Choice from Kennedy to Reagan*. Rev. ed. Baltimore: Johns Hopkins University Press, 1991.
- Loomis, Burdett A. and Allan J. Cigler. "Introduction: the Changing Nature of Interest Group Politics." In *Interest Group Politics*. 3rd Ed. Edited by Allan J. Cigler and Burdett A. Loomis. Washington, D.C.: CQ Press, 1991.
- Lott, Trent and Ernest F. Hollings. "Letters to the Editor: I-Way Patrol." *The Wall Street Journal*. 6 Sep 1994: A13.
- Lowi, Theodore J. "American Business, Public Policy, Case-Studies, and Political Theory." *World Politics: A Quarterly Journal of International Relations*. 1964: 677-715.
- Madison, James. "Federalist 10." In *The Federalist Papers*. New Rochelle, New York: Arlington House, n.d.
- Magnusson, Paul. "What Clinton Expects from Senator Science." *Business Week*. 27 Jul 1992: 29.
- Malhotra, Yogesh, Abdullah Al-Sheri, and Jeff J. Jones. "National Information Infrastructure: Myths, Metaphors and Realities." [cited 20 Nov 1999] available from: <http://www.brint.com/papers/nii/>
- March, James G. and Johan P. Olsen. *Rediscovering Institutions: The Organizational Basis of Politics*. New York: Maxwell Macmillan Canada, 1989.
- Markarewicz, Thomas J. "The Effectiveness of Low Income Telephone Programmes: Southwestern Bell's Experience." *Telecommunications Policy*. Jun 1991: 223-240.
- Markinson, Larry. *Open Secrets: the Dollar Power of PACs in Congress*. Washington, D.C.: Congressional Quarterly Inc., 1990.

- _____. and Joshua Golden. *Open Secrets: the Encyclopedia of Congressional Money And Politics*. 4th Ed. Washington, D.C.: Congressional Quarterly Inc., 1998.
- Markoff, John. "The Media Business: New Coalition to Seek a Public Data Highway." *New York Times*, 26 Oct 1993: D2.
- Martens, Brend and Jorg Kastl. "Visualization of Agenda Building Processes by Correspondence Analysis." In *Visualization of Categorical Data*. Edited by Jorg Blasius and Michael Greenacre, 123-132. San Diego: Academic Press, 1998.
- Martin, Brennon M. "Universal Service and Information Poverty: A New Look at an Old Problem." [cited 22 Apr 1999] available from:
<http://www.internetcenter.state.mn.us/public.htm>
- Matlock, Carol. "Crossing the Line." *National Journal*. 25 Mar 1989: 724-729.
- _____. "When Newspapers Lobby." *National Journal*. 2 Sep 1989: 2137-2141.
- Matusow, Barbara. "Who Knows Business." *Washingtonian*. Jun 1995: 80-83+.
- McCarvel, Rod. "What We Talk About When We Talk About Universal Service: An Examination of Senate Bill 652." [cited 23 Apr 1999] available from:
<http://lawwww.cwrulaw/publications/student/SenateBill652.html>
- McClosky, Herbert and John Zaller. *The American Ethos: Public Attitudes Toward Capitalism and Democracy*. Cambridge: Harvard University Press, 1984.
- McCombs, Maxwell E. and Donald L. Shaw. "The Agenda-Setting Function of Mass Media." *Public Opinion Quarterly*. Summer 1972: 176-187.
- _____. "The Evolution of Agenda-Setting Research: Twenty-Five Years in the Marketplace of Ideas." *Journal of Communication*. Spring 1993: 58-67.
- McFarland, Andrew S. "Interest Groups and Political Time: Cycles in America." *British Journal of Political Science*. Apr 1991: 257-284.
- _____. *Public Interest Lobbies: Decision Making on Energy*. Studies in Energy Policy. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1976.
- Meiners, Roger E. and Bruce Yandle. "Regulatory Lessons from the Reagan Era." In *Regulation, and the Reagan Era: Politics, Bureaucracy and the Public Interest*. Edited by Roger E. Meiners and Bruce Yandle, 3-15. Independent Studies in Political Economy. New York: Holmes & Meier, 1989.

- Melloan, George. "Keep the Information Superhighway a Freeway." *Wall Street Journal*. 16 May 1994: A19.
- Mendels, Pamela. "Schools, Libraries Cope with Cut in Funding for Internet Plan." *New York Times on the Web*. 17 Jun 1998: 1-3. [cited 22 Apr 1999] available from: <http://www.nytimes.com/>
- Mileur, Jerome M. "The Politics of E. E. Schattschneider." *PS: Political Science & Politics*. Jun 1992: 176-180.
- Mills, Mike. "A 'Camelot Moment' on Communications." *Washington Post*. 4 Feb 1996: H1, H8.
- Mills, Mike. "Chairman Defends FCC's 'Public Interest' Role; Report by Group with Ties to Communications Industry Calls for Abolishing the Agency." *Washington Post*. 31 May 1995: F3.
- Moe, Terry M. *The Organization of Interests*. Chicago: University of Chicago Press, 1980.
- Morrison, David C. "Opening an Information Highway." *National Journal*. 10 Nov 1990: 2768.
- Mucciaroni, Gary. *Reversals of Fortune: Public Policy and Private Interests*. Washington, D.C.: The Brookings Institution, 1995.
- _____. "The Garbage Can Model and the Study of Policy Making: A Critique." *Polity*. Spring 1992: 461-482.
- _____. "Unclogging the Arteries: The Defeat of Client Politics and the Logic of Collective Action." *Policy Studies Journal*. 19 (1991): 474-494.
- Mueller, Milton L. Jr. *The Telephone War: Interconnection, Competition, and Monopoly in the Making of Universal Telephone Service, 1894-1920*. Ph.D. diss., University of Pennsylvania, 1989.
- _____. "'Universal Service' and the New Telecommunications Act: Mythology Made Law." *Communications of the ACM*. Mar 97. [cited 2 Nov 1998] available from: <http://www.ctr.columbia.edu/vii/univsvce/cacm.htm>
- _____. *Universal Service: Competition, Interconnection, and Monopoly in the Making of the American Telephone System*. Cambridge, Mass: MIT Press, 1997.
- _____. and Jorge Reina Schement. "Universal Service from the Bottom Up: A Profile of Telecommunications Access in Camden, New Jersey." [cited 26 Apr 1999] available from: <http://www.slis.indiana.edu/TIS/abstracts/ab12-3/mueller.html>

National Journal. All relevant articles. January 1986-10 February 1996.

Nelson, Barbara J. *Making an Issue of Child Abuse*. Chicago: University of Chicago Press, 1984.

New York Times. "Mr. Gore's Video Vision." 17 Jan 1994: A16.

New York Times. "FCC To Increase Phone Subsidies." 21 Oct 1999: 1-3. [cited 25 Oct 1999] available from: <http://www.nytimes.com/aponline/AP-Phone-Subsidies.html>

Noam, Eli M. "Beyond Liberalization: from the Network of Networks to the System of Systems." Columbia University Working Papers Server Project: 1-8. [cited 23 Apr 1999] available from: <http://www.columbia.edu/dlc/wp/citi/citiauth.html>

_____. "Beyond Liberalization II: Reforming Universal Service." Columbia University Working Papers Server Project: 1-18. [cited 23 Apr 1999] available from: <http://www.columbia.edu/dlc/wp/citi/citiauth.html>

_____. "The Impending Doom of Common Carriage." Columbia University Working Papers Server Project: 1-17. [cited 26 Apr 1999] available from: <http://www.columbia.edu/dlc/wp/citi/citiauth.html>

_____. "The Telecom Act: Beyond the Hype." Columbia University Working Papers Server Project: 1-2. [cited 23 Apr 1999] available from: <http://www.columbia.edu/dlc/wp/citi/citiauth.html>

Noll, Roger G. and Bruce M. Owen. "The Predictability of Interest Group Arguments." In *The Political Economy of Deregulation: Interest Groups in the Regulatory Process*. Edited by Roger G. Noll and Bruce M. Owen, 53-65 Washington, D.C.: American Enterprise Institute for Public Policy Research, 1983.

Office of the Vice President. *Telecommunications Policy Reform*. 11 Jan 1994. [cited 1 Feb 1999] available from: <http://www.pub.whitehouse.gov/>

Page, Benjamin I. and Robert Y. Shapiro. "Effects of Public Opinion on Policy." *American Political Science Review*. 77 (1983): 175-190.

Parker, Edwin B., Heather E. Hudson, Don A. Dillman, and Andrew D. Roscoe. *Rural America in the Information Age: Telecommunications Policy for Rural Development*. Lanham, Maryland: Aspen Institute and University Press of America, 1989.

Patterson, Samuel P. and Gregory A. Caldeira. "Standing Up for Congress: Variations in Public Esteem since the 1960s." *Legislative Studies Quarterly*. Feb 1990: 25-47.

- PC Week*. "Senate Ponders \$1.15B Proposal for Network Apps." 17 Aug 1992: 39.
- Persinos, John F. "Telecom Ad War." *Campaigns & Elections*. 16 (Oct/Nov 1995): 34-35.
- Peters, B. Guy and Brian W. Hogwood. "In Search of the Issue-Attention Cycle." *The Journal of Politics*. 47 (1985). 238-253.
- Pool, Ithiel de Sola. "Competition and Universal Service: Can We Get There from Here? In *Disconnecting Bell: The Impact of the AT&T Divestiture*. Edited by Harry M. Shoosan III, 112-131. New York: Pergamon Press, 1984.
- _____. *Forecasting the Telephone: A Retrospective Technology Assessment of the Telephone*. Norwood, NJ: ABLEX Publishing Company, 1983.
- _____. et al. *The Prestige Press*. Cambridge, Mass.: The MIT Press, 1970.
- _____. *Technologies without Boundaries*. Edited by Eli M. Noam. Cambridge, Mass.: 1990.
- Pressler, Larry. "Letters to the Editor: Full Speed Ahead on the I-Way." *The Wall Street Journal*. 31 May 1995: A17.
- _____. and K. V. Schieffer. "A Proposal for Universal Telecommunications Service." *Federal Communications Law Journal*. 40 (3): 15-21.
- Prewitt, Kenneth and Alan Stone. *The Ruling Class: Elite Theory, Power, and Democracy*. New York: Harper & Row, Publishers, 1973.
- Prieger, James. "Universal Service and the Telecommunications Act of 1996." *Telecommunications Policy*. 22, no.1: 57-71.
- Priest, W. Curtiss. "Archive: A Short History of Universal Service 1995: Progress of the Snowe-Rockefeller Amendment for Providing Universal Service for Health Care Providers for Rural Areas, Educational Providers, and Libraries." Presented at Alliance for Public Technology Panel on Federal Legislation and an Advanced Universal Service Goal. John Hancock Conference Center, Boston, MA. 17 Nov 1995. [cited 26 Apr 1999] available from: <http://www.eff.org/>
- Py, Ray, Candace Sams, and Susan J. Aluisse. "Telecommunications: A Campaign Issue Whose Time Is Coming." *The Long-Distance Letter*. Feb 1991: 4-6.
- Quirk, Paul J. "Policy Making in the Contemporary Congress: Three Dimensions of Performance." In *The New Politics of Public Policy*. Edited by Marc K. Landy and Martin A. Levin, 228-245. Baltimore: Johns Hopkins Press, 1995.

- Rauch, Jonathan. "The Regulatory President." *National Journal*. 30 Nov 1991: 2902-2906.
- Resnick, David and Norman C. Thomas. "Cycling through American Politics." *Polity*. Fall 1990: 1-21.
- Reynolds, H.T. *Analysis of Nominal Data*. Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-007. Beverly Hills: Sage Publications, 1977.
- Riker, William H. *Liberalism Against Populism: A Confrontation between the Theory of Democracy and the Theory of Social Choice*. San Francisco: W. H. Freeman and Company, 1982.
- Rieselbach, Leroy N. *Congressional Reform: The Changing Modern Congress*. Washington, D.C.: CQ Press, 1994.
- Rocheftort, David A. and Roger W. Cobb. "Problem Definition, Agenda Access, and Policy Choice." *Policy Studies Journal*. 21 (1) Spring 1993: 56-71.
- Rogers, Everett M., James W. Dearing and Dorine Bregman. "The Anatomy of Agenda-Setting Research." *Journal of Communication*. Spring 1993: 68-84.
- Rogers, Michael. "NII Advisory Council Holds First Meeting." *Library Journal*. 1 Apr 1994: 35.
- Rosenbaum, David E. "Phone Fee for School Internet Service Seems to Be Too Popular to Overturn." *New York Times*. 15 Aug 1999: 18.
- Rowland, William D. Jr. "The Process of Reification: Recent Trends in Communications Legislation and Policy-Making." *Journal of Communication*. 32 (4): 114-136.
- Russell, Keith. "Rating the Top 10, Left and Right." *Insight*. 25 May 1998: 14-16.
- Sabatier, Paul. "Policy Change Over a Decade or More." In *Policy Change and Learning: the Advocacy Coalition Approach*. Edited by Paul Sabatier and Hank C. Jenkins-Smith, 13-39. Theoretical Lenses on Public Policy. Boulder, Colorado: Westview Press, 1993.
- _____. "Toward Better Theories of the Policy Process." *PS: Political Science & Politics*. 24, Jun 1991: 147-156.
- Salisbury, Robert H. "Interest Representation: The Dominance of Institutions." *American Political Science Review*. 1984 (78): 64-76.
- _____. "Interest Structures and Policy Domains: A Focus for Research." In *Representing Interests and Interest Group Representation*. Edited by William Crotty, Mildred A. Schwartz, and John C. Green, 12-20. Lanham, MD: University Press of America, Inc., 1994.

- Samuelson, Paul A. "The Pure Theory of Public Expenditure." *The Review of Economics and Statistics*. 1954, 36: 387-389.
- Sandmo, Agnar. "Public Goods." In *The New Palgrave: A Dictionary of Economics*. Edited by John Eatwell, Murray Milgate, and Peter Newman, 1061-1066. London: MacMillan Press, 1978.
- Sawhney, Harmeet. "Universal Service: Prosaic Motives and Great Ideals." *Journal of Broadcasting and Electronic Media*. 38: 375-395.
- Schattschneider, E. E. "Political Parties and the Public Interest." *The Annals*. Edited by Thorstein Sellin. Mar 1952, 280: 18-26.
- _____. *The Semisovereign People: A Realist's View of Democracy in America*. Hinsdale, Illinois: Dryden Press, 1975.
- _____. *200 Million Americans in Search of Government*. New York: Holt, Rinehart, and Winston, Inc., 1969.
- Schement, Jorge Reina. "Beyond Universal Service: Characteristics of Americans without Telephone Service, 1980-1993. Benton Foundation. *Communications Working Paper #1*, 1996. [cited 26 Apr 1999] available from:
<http://www.benton.org/Library/Universal/Working1/working1.html>
- _____. Rebecca R. Pressman, and Laurance Povich. "Transcending toward a New Universal Service." A paper presented at the conference on *Universal Service: A Multidisciplinary Perspective*. New York Law School, 6 Dec 1995. [cited 26 Apr 1999] available from:
<http://www.benton.org/Policy/Uniserv/Conference/transcend.html>
- Schiels, Peter. "The Politics of the Telecommunications Process." *Policy Studies Journal*. 19 (1991): 495-513.
- Shiver, Jube, Jr. "Agency Steps into Telecomm Limelight; Infrastructure: Commerce Department Leads the Charge toward Government Spending for an Information Highway." *Los Angeles Times*. 20 Sep 1993: D1.
- Schlesinger, Arthur M. Jr. *The Cycles of American History*. Boston: Houghton Mifflin Company, 1986.
- Schlozman, Kay Lehman. "What Accent the Heavenly Chorus? Political Equality and the American Pressure System." *Journal of Politics*. 1984 (46): 1006-1032.

- _____. and John T. Tierney. *Organized Interests and American Democracy*. New York: Harper & Row, Publishers, 1986.
- Schwartz, Carol L. and Rebecca L. Turner, Editors. *Encyclopedia of Associations*. 1995. 29th Edition. Detroit: Gale Research, Inc. 1995.
- Shoosan, Harry M. III "The Bell Breakup: Putting It in Perspective." In *Disconnecting Bell: The Impact of the AT&T Divestiture*. Edited by Harry M. Shoosan III, 8-22. New York: Pergamon Press, 1984.
- Shull, Steven A. *Presidential-Congressional Relations: Policy and Time Approaches*. Ann Arbor: University of Michigan Press, 1999.
- Simons, John. "Stung by Criticism, FCC Plans to Alter Web-Connection Plan." *Wall Street Journal: WSJ.com*. 11 May 1998: 1-2.
- Skowronek, Stephen. "Presidential Leadership in Political Time." In *The Presidency and the Political System*. 5th ed. Edited by Michael Nelson, 124-170. Washington, D.C.: CQ Press, 1998.
- Skrzycki, Cindy. "States Lobby on Wireless Services Bill: Regulators Want Power to Oversee New Systems." *Washington Post*. 25 May 1993: D1.
- Smith, James Allen. *The Idea Brokers: Think Tanks and the Rise of the New Policy Elite*. New York: The Free Press, 1991.
- Smith, Richard A. "Interest Group Influence in Congress." *Legislative Studies Quarterly*. 20 (1995): 1 Feb: 89-139.
- Solomon, Burt. "Twixt Cup and Lip." *National Journal*. 24 Oct 1992: 2410-2415.
- Souraf, Frank J. *Inside Campaign Finance: Myths and Realities*. New Haven: Yale University Press, 1992.
- St. Lifer, Evan and Michael Rogers. "Public Interest Groups Flocking to D.C. to Discuss Shaping NII." *Library Journal*. 1 May 1994: 14-15.
- Stake, Robert. E. *The Art of Case Study Research*. Thousand Oaks, Ca.: Sage Publications, 1995.
- Starling, Grover. "Technological Innovation in the Communications Industry: An Analysis of the Government's Role." In *Communications Policy and the Political Process*. Edited by John J. Havick, 171-201. Westport, CT: Greenwood Press, 1983.
- Starobin, Paul. "Welcome to the Club." *National Review*. 28 Jan 1995: 219-225.

- Stimson, James A. *Public Opinion in America: Moods, Cycles, & Swings*. Boulder, CO: Westview Press, 1991.
- _____. *Public Opinion in America: Moods, Cycles, & Swings*. 2nd Ed. Boulder, CO: Westview Press, 1999.
- Stone, Alan. *Public Service Liberalism: Telecommunications and Transitions in Public Policy*. Princeton, New Jersey: Princeton University Press, 1991.
- _____. *Wrong Number: The Breakup of AT&T*. New York: Basic Books, 1989.
- Stone, Deborah. *Policy Paradox: The Art of Political Decision Making*. New York: W. W. Norton & Company, 1997.
- _____. "Causal Stories and Policy Agendas." *Political Science Quarterly*. 1989: 104, no.2: 281-300.
- Strauss, Anselm and Juliet Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, California: Sage Publications, Inc., 1990.
- Sugawara, Sandra and Paul Fahri. "Cable, TV Deregulation Plan on the Way: Gore Calls Executives to the White House." *Washington Post*. 4 Jan 1994: E1.
- Sukow, Randall M. "NTIA Calls for Telco Entry into Cable." *Broadcasting*. 28 Oct 1991: 59-60.
- Taglang, Kevin. "Public Interest Advocates, Universal Service and the Telecommunications Act of 1996." [cited 22 Apr 1999] available from: <http://www.benton.org/Library/Advocates/advocatesold.html>
- Tasini, Jonathan. "The Tele-Barons: Media Moguls Rewrite the Law and Rewire the Country." *Washington Post*. 4 Feb 1996: C1, C4.
- Telecommunications Act of 1996*. Public Law 104-104 February 1996. U.S. Senate 104th Cong., 2nd sess., (16 February 1996).
- Thierer, Adam D. "A Report Card on the Pressler Telecommunications Plan (S.652)." *The Heritage Foundation. Issue Bulletin #209*. 5 May 1995. [cited 26 Apr 1999] available from: <http://www.heritage.org:80/library/index/k1.html>
- _____. "Senator Dole's Welcome Proposal for Telecommunications Freedom." *The Heritage Foundation. Background Update #233*. 24 Aug 1994. [cited 26 Apr 1999] available from: <http://www.heritage.org:80/library/index/k1.html>

- Tidmarch, Charles M. and John J. Pitney, Jr. "Covering Congress." *Polity*. Spring 1985: 463-483.
- Toffler, Alvin. *The Adaptive Corporation*. New York: McGraw-Hill Book Company, 1985.
- Truman, David. *Governmental Process: Political Interests and Public Opinion*. New York: Alfred A. Knopf, 1951.
- Tuchman, Gaye. *Making News: A study in the Construction of Reality*. New York: The Free Press, 1978.
- Tunstall, W. Brooke. *Disconnecting Parties Managing the Bell System Break-Up: An Inside View*. New York: McGraw-Hill Book Company, 1985.
- U.S. Congress. Office of Technology Assessment. *Critical Connections: Communications for the Future*, OTA-CIT-407. Washington, D.C.: Government Printing Office, Jan 1990.
- _____. *High Performance Computing & Networking for Science*. OTA-BP-CIT-59. Washington, D.C.: Government Printing Office, Sep 1989.
- _____. *Rural America at the Crossroads: Networking for the Future*, OTA-TCT-471. Washington, D.C.: Government Printing Office, Apr 1991.
- U.S. Congress. Public Law No. 416. *Communications Act of 1934*. Washington, D.C.: 19 June 1934.
- _____. Public Law 102-94. *High Performance Computing Act of 1991*. Washington, D.C.: 9 Dec 1991.
- _____. Public Law 104-104. *Telecommunications Act of 1996*. Washington, D.C., 16 Feb 1996.
- U.S. Congress. House. *Preliminary Report on Communications Companies*. 73rd Cong., 2nd sess., 1934. H. Report 1273.
- _____. Committee on Interstate and Foreign Commerce. *Federal Communications Commission*. 73rd Cong., 2nd sess., 10 Apr 1934.
- _____. Subcommittee on Communications. *Domestic Carrier Regulation Hearings on H.R. 7047*. 94th Cong., 1st sess., 10, 11, 13, 17, and 18, 1975.
- U.S. Congress. Senate, Commerce Committee. *Hearings on Telecommunications Improvements*. 103rd Cong., 2nd sess., 18 May 1994.

- _____. U.S. Senate, Commerce Committee. *Public Space on the Information Superhighway*. 103rd Cong., 2nd sess., 22 Jun 1994.
- _____. Committee on Interstate Commerce. *Hearings on S . 2910*. 73rd Cong., 2nd sess., Mar 9, 10, 13, 14, 15, 1934.
- U.S. Department of Commerce. National Telecommunications and Information Administration. *Falling Through the Net: Defining the Digital Divide*. Washington, D.C., 1999.
- _____. *The NTIA Infrastructure Report: Telecommunications in the Age of Information*. NTIA Special Publication 91-26. Washington, D.C., 1991.
- _____. *NTIA TELECOM 2000: Charting the Course for a New Century*. NTIA Special Publication 88-21. Washington, D.C., 1988.
- _____. Office of Telecommunications and Information Applications. *Connecting the Nation: Classrooms, Libraries, and Health Care*. Update 1995. Washington, D.C., 1995.
- U.S. General Accounting Office. *Information Highway-Issues Affecting Development*. GAO Report RCED-94-285. 30 Sep 1994. [cited 10 Feb 1999] available from: <http://web.lexis-nexis.com.univers>
- Vail, Theodore. 1910. AT&T Annual Report. Quoted by Herbert S. Dordick in, "The Origins of Universal Service," *Telecommunications Policy* (June 1990): 230.
- Van Dyke, Vernon. *Ideology and Political Choice: The Search for Freedom, Justice, and Virtue*. Chatham, New Jersey: Chatham House Publishers, 1995.
- Vietor, Richard H. K. "AT&T and the Public Good: Regulation and Competition in Telecommunications, 1910-1987." In *Future Competition in Telecommunications*. Edited by Stephen P. Bradley and Jerry A. Hausman, 27-103. Boston: Harvard Business School Press, 1989.
- Victor, Kirk. "Asleep at the Switch." *National Journal*. 1 Jan 1993:131-134.
- _____. "Being Here." *National Journal*. 6 Aug 1998: 2021-2025.
- _____. "Down to the Wire." *National Journal*. 5 Mar 1994: 526-530.
- _____. Drawing the Lines. *National Journal*. 26 Oct 1991: 2588-2592.
- _____. "Media Monsters." *National Journal*. 2 Mar 1995: 480-484.
- _____. "Not Many Senate Arms Left Untwisted." *National Journal*. 24 Jun 1995: 1657-1661.

- _____. "Road Warriors." *National Journal*. 20 Mar 1993: 681.
- Vogel, David. *Fluctuating Fortunes: The Political Power of American Business*. New York: Basic Books, Inc., 1988.
- _____. "The Public-Interest Movement and the American Reform Movement." *Political Science Quarterly*. 1980/81 (95): 607-627.
- von Rabenau, Burckhard and Konrad Stahl. "Dynamic Aspects of Public Goods: a Further Analysis of the Telephone System." *The Bell Journal of Economics and Management Science*. Autumn 1974: 651-669.
- Wagner, Jeanne. *The Governance of Universal Telecommunications Service for the American Populace: From 1934 to the Third Millennium*. Ph.D. diss., Golden Gate University, 1994.
- Walker, Jack L. Jr. *Mobilizing Interest Groups in America: Patrons, Professions, and Social Movements*. Ann Arbor: University of Michigan Press, 1991.
- _____. "Origins and Maintenance of Interest Groups in America." *American Political Science Review*. 1983 (77): 390-406.
- _____. "Setting the Agenda in the U. S. Senate: A Theory of Problem Selection." *British Journal of Political Science*. Oct 1977: 423-445.
- Wall Street Journal*. "Edsels on the I-Way." 17 Aug 1994: A12.
- _____. "The 55 MPH Information Highway." 13 Jul 1994: A14.
- Weaver, R. Kent. "The Changing World of Think Tanks." *PS: Political Science & Politics*. 22 (1989): 563-577.
- WEFA Group. "Economic Impact of Deregulating U.S. Communications Industries." [cited 26 Apr 1999] available from: <http://telecompolicy.net/dereg/wefa/>
- Weinberg, Steve. "The Politics of Rewriting the Federal Communications Act." In *Communications Policy and the Political Process*. Edited by John J. Havick, 71-87. Westport, CT: Greenwood Press, 1983.
- West, Darrell M. and Burdett A. Loomis. *The Sound of Money: How Political Interests Get What They Want*. New York: W.W. Norton & Company, 1998.

- Wiley, Richard E. "The End of Monopoly: Regulatory Change and the Promotion of Competition." In *Disconnecting Bell: the Impact of the AT&T Divestiture*. Edited by Harry M. Shooshan III, 23-46. New York: Pergamon Press, 1984.
- _____. and Richard M. Neustadt. "U.S. Communications Policy in the New Decade." *Journal of Communication*. 32 (2): 22-32.
- Williams, Frederick. *The New Telecommunications: Infrastructure for the Information Age*. New York: The Free Press, 1991.
- Woodward, Bob. *The Agenda: Inside the Clinton White House*. New York: Simon & Schuster, 1994.
- Xavier, Patrick. "Universal Service and Public Access in the Networked Society." *Telecommunications Policy*. 21, no. 9/10: 829-843.
- Yin, Robert K. *Case Study Research: Design and Methods*. 2nd ed. Thousand Oaks, CA, 1994.
- Young, Peter. "What Is a Digital Library? Technology, Intellectual Property, and the Public Interest." In *Books, Bricks & Bytes: Libraries in the Twenty-First Century*. Edited by Stephen R. Graubard and Paul LeClerc, 1-33. New Brunswick, USA: Transaction Publishers, 1998.
- Zuckoff, Mitchell. "Gore Talks High Tech in Cambridge; Campaign '92." *Boston Globe*. 12 Aug 1992: 1. [cited 20 Mar 1999] available from: <http://web.lexis-nexis.com/>

From: “The NII: For the Public Good.” Robert E. Dugan, Joan F. Cheverie, and Jennifer L. Souza. In *The Journal of Academic Librarianship*. Mar 1996.

Stakeholders identified during background study:

Alcatel Data Networks
Alliance for Competitive Communications
Alliance for Public Technology
American Association of Composers, Authors, and Publishers (ASCAP)
American Bar Association
American Communication Association
American Library Association (ALA)
American Medical Association
American National Standards Institute (ANSI)
 Information Infrastructure Standards panel
Americans for Indian Opportunity
Anneberg Washington Program in Communications Policy Studies
Apple Computer
Association for America’s Public Television Stations (APTS)
Association for Federal Information Resources Management
Association of Research Libraries (ARL)
AT&T
Bell Atlantic Corporation
Bell South
Bellcore
Benton Foundation
Cable Television Laboratories, Inc.
CAUSE
CBS, Inc.
Center for Civic Networking
Center for Democracy and Technology
Center on Information Technology Accommodation
Coalition for Networked Information (CNI)
Coalition for Networked Information Discovery and Retrieval (CNIDR)
Communications Workers of America, AFL-CIO
Computer and Communications Industry Association
Computer Professionals for Social Responsibility
Computer System Policy Project (CSPP)
Consortium for School Networking
Corning, Inc.
Corporation for National Research Initiatives
Corporation for Public Broadcasting
Council on Competitiveness
Cross Industry Working Team (XIWT)
Digital Equipment Corporation (DEC)

Eastman Kodak
EDUCOM
Electronic Frontier Foundation
Environmental Protection Agency
Executive Office of the President
 Office of Science and Technology Policy
 Office of the Vice President
Federal Communication Commission
Federation of American Research Networks (FARNET)
The Freedom Forum
General Instrument
GTE
Hewlett Packard
Hubbard Broadcasting, Inc.
IBM
Information Industry Association
Intel
International City-County Management Association (ICMA)
The Internet Society
League of Women Voters
Lotus Development Corp.
MCA Music Entertainment Group
MCI Communications Corporation
The Morino Institute
National Academy of Public Administration
National Aeronautics and Space Administration (NASA)
National Association of Broadcasters
National Association of Counties
National Cable Television Association
National Civic League
National Economic Council
National Education Association
National Engineering Consortium
National Information Infrastructure Testbed, Inc.
National League of Cities
National Public Radio
National Research Council
National Science Foundation (NSF)
National Security Agency
National Security Industrial Association
NYNEX
Office of Management and Budget (OMB)
Office of Technology Assessment (OTA)—now defunct
OMB Watch

Pacific Bell
Price Waterhouse
Public Technologies, Inc.
Silicon Graphics, Inc.
The Society for Electronic Access
Sprint
State Information Policy Consortium
Sun Microsystems
Taxpayers Assets Project
Tele-Communications, Inc. (TCI)
Teleport Communications Group
Texas Instruments
Unisys, Inc.
U.S. Congress
 House Energy and Commerce Committee
 House Subcommittee on Science
 House Subcommittee on Telecommunications and Finance
U.S. Department of Commerce
 International Trade Association
 National Institute of Standards and Technology (NIST)
 National Oceanic and Atmospheric Administration (NOAA)
 National Telecommunications and Information Administration (NTIA)
U.S. Department of Defense
 Advanced Research and Projects Agency (ARPA)
U.S. Department of Education
U.S. Department of Energy
U.S. Department of Health and Human Services
 National Institutes of Health
U.S. Department of Justice
U.S. Department of Transportation
U.S. West
United States Distance Learning Association
United States Satellite Broadcasting, Inc.
UUNET Technologies
The Wireless Opportunities Coalition
World Institute on Disability

Telecommunications Policy Issues - Media Attention

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	TOTAL
L/N - Legislative News											
Universal Service	13	8	4	4	3	9	3	32	99	60	235
Information Highway/Infrastructure	0	0	1	2	2	9	13	222	611	361	1,221
Telephone Industry/Regulation	548	560	493	494	524	590	393	445	710	863	5,620
New York Times											
Universal Service	1	1	2	1	0	2	1	9	9	7	33
Information Highway/Infrastructure	0	1	0	0	1	3	2	60	165	106	338
Telephone Industry/Regulation	215	185	180	214	219	316	228	234	487	440	2,718
Wall Street Journal											
Universal Service	1	2	0	0	0	0	0	4	19	17	43
Information Highway/Infrastructure	0	0	0	0	0	0	0	5	33	9	47
Telephone Industry/Regulation	107	126	96	173	199	226	221	276	264	331	2,019
Washington Post											
Universal Service	2	4	0	1	0	0	2	5	12	2	28
Information Highway/Infrastructure	0	0	1	2	2	4	5	90	198	97	399
Telephone Industry/Regulation	137	100	101	88	101	148	99	117	128	145	1,164
TOTALS:											
Universal Service											378
Information Highway/Infrastructure											2,005
Telephone Industry/Regulation											11,521

Legislative News: Source Material

Sources searched when “Source Material” selection is “Legislative News”

Title—MM/YYYY (month/year with which coverage begins)

3D - 4/89-5/91
 ABA Bank Compliance - Jun-86
 ABA Banking Journal - January 1980
 Abacus - Septembr 1985
 ABA's Financial Services Industry Trends - Sept/Oct 1993
 ABC News Transcripts - January 1990
 Abortion Report, The - July 1989
 Academic and Library Computing - 04/91 to 06/92
 Academy of Management Journal - January 1992
 Academy of Management Review - January 1992
 Accent on Living - January 1989
 Accountancy - Feb-87
 Accounting and Finance - January 1992
 Accounting Auditing & Accountability Journal - 1992
 Accounting Review - Jan-86
 Accounting Technology - Jan-93
 Accounting Today - January 1991
 Accounting, Organizations & Society - Dec-82
 Across the Board - January 1991
 Addiction Letter, The - January 1989
 Adhesives Age - January 1990
 Administration & Society - January 1992
 Administration in Social Work - 1985
 Administrative Management - January 1983
 Administrative Science Quarterly - January 1989
 Advanced Imaging - January 1991
 Advanced Military Computing - January 1990 to October 1990
 Advances in Applied Probability - Mar-93
 Advances in International Accounting - 1992
 Advances in International Comparative Management - 1992
 Advances in International Marketing - 1993
 Advocate - August 1994
 ADWEEK - January 1984
 Aftermarket Business - January 1983
 Agency Sales Magazine - January 1991
 AgExporter - January 1991
 Aging - January 1983 to June 1993
 Agra Europe - January 1990
 Agribusiness - May 1989 to November 1994
 Agribusiness Worldwide - May 1989
 Agricultural Outlook - June 1991 to May 1992
 Agricultural Research - January 1991
 AI Expert - 01/89 to Present
 AIDS Alert - January 1989

AIDS Weekly - January 1991
Air Cargo World - January 1991
Air Conditioning, Heating & Refrigeration News - January 1989
Air Transport World - January 1983
Airfinance Journal - 1993
Airline Business - Jan-97
Alcohol Health & Research World - 01/89 to Present
Alcoholism and Drug Abuse Week - 06/89 to Present
Alcoholism Report, The - 01/89 to 12/94
Alternatives - January 1993
America - January 1993
American Artist - January 1993
American Banker - January 1979
American Business Law Journal - January 1992
American City & County - January 1990
American Demographics - 01/91 to Present
American Druggist - January 1994
American Economist - January 1992
American Family Physician - January 1989
American Fitness - January 1990
American Forests - January 1990
American Health Fitness of Body and Mind - January 1989
American Health Line - From March 30, 1992
American Imago - January 1993
American Journal of Agricultural Economics - January 1994
American Journal of Drug and Alcohol Abuse - June 1989
American Journal of Ophthalmology - January 1991
American Journal of Psychology - January 1993
American Journal of Sports Medicine, The - January 1989
American Libraries - January 1983
American Machinist - May 1989
American Paint & Coatings Journal - January 1992
American Papermaker - January 1990
American Printer - January 1990
American Prospect, The - September 1992
American Rehabilitation - January 1989
American Review of Public Administration - January 1989
American Salesman - January 1990
American School & University - January 1993
American Shipper - January 1990
American Spectator, The - January 1992
American Visions - January 1993
Americas - January 1991
America's Community Banker - Apr-95
America's Network - January 1983
Annual Review of Psychology - January 1993
Antitrust Bulletin - January 1992
Antitrust Law Journal - April 1981 - Fall 1996
Apparel Industry Magazine - April 1991
Appliance - May 1989
Appliance Manufacturer - January 1989

Applied Economics - January 1992
 Applied Financial Economics - Mar-92
 Appraisal Journal - January 1992
 Archives of Environmental Health - March 1989
 Archives of Internal Medicine - January 1994
 Archives of Pediatrics & Adolescent Medicine - October 1992
 Arizona Business Gazette - From January 6, 1994
 Arkansas Business and Economic Review - January 1992
 Arkansas Democrat-Gazette - January 1995
 Art in America - 01/93 to Present
 Arthritis Today - 06/89 to 08/94
 Arts Education Policy Review - 9/93 to Present
 ASAPII Publications -
 Asbury Park Press - May-95
 Asia Pacific Journal of Marketing and Logistics - 1993
 Asia Pacific Journal of Operational Research - May-93
 Asia Pacific Journal of Quality Management - 01/92 to Present
 Asian Banker - 6/96 - 7/96
 Assembly - May 1989
 Assembly Automation - 1992
 Associated Press, The - January 1977
 Association Management - January 1991
 Astronomy - January 1993
 Atlantic Economic Journal - January 1989
 Atlantic Monthly, The - January 1983
 Au Courant - January 1992 to July 1992
 Audubon - January 1992
 Australian Business Monthly - Jan-93
 Automatic I.D. News - Sep-94
 Automotive Engineering - January 1989
 Automotive Marketing - January 1983
 Automotive Production - Jan-96
 Aviation Week & Space Technology - January 1975
 Back Letter, The - January 1990
 Back Stage - August 1984
 Backpacker - January 1993
 Bakery Production and Marketing - January 1989
 Bank Management - January 1991
 Bank Marketing - January 1991
 Bank of England Quarterly Bulletin - Feb-92
 Bank Systems & Technology - 11/93 to Present
 Bankers Magazine - Autumn 1971
 Bankers Monthly - January 1992 to January 1993
 Banking Strategies - January 1981
 Baton Rouge Business Report - May 1990 to February 1993
 Behavioral Health Management - January 1988
 Belgium: Economic and Commercial Information - January 1991 to May 1992
 Benefits Canada - Jan-93
 Berkeley Journal of Employment & Labor Law - 1993
 Berkeley Technology Law Journal - Vol. 13, 1998
 Best's Review Life Health Insurance Edition - January 1983

Best's Review Property Casualty Insurance Edition - January 1983
Better Homes and Gardens - January 1992
Better Nutrition for Today's Living - January 1989
Beverage Industry - January 1993
Beverage World - January 1989
Beverage World Periscope Edition - May 1989
Bicycling - January 1989
Bill Overviews and Outlooks - January 1995
Billboard - June 1991
BioScience - January 1989
Black Enterprise - January 1992
BMD Monitor - January 1997
BNH - The Business New Hampshire - August 1986
Boating Industry - January 1989
Bobbin - January 1991
Bond Buyer, The - January 1981
Boston Globe, The - September 1988
Boston Herald, The - January 1994
Boy's Life - January 1984 to January 1985
Brandweek - January 1989
British Journal of Industrial Relations - Mar-86
British Journal of Management - Mar-92
British Journal of Psychology - January 1993
British Journal of Sociology - Mar-93
British Medical Journal - 1989
British Plastics & Rubber - May 1989
Broadcast Engineering - Aug-94
Broadcasting - Jan-89
Broadcasting & Cable - January 1983
Broker World - Jan-88
Brookings Papers on Economic Activity - 1987
Brookings Review - January 1992
Brown University Child and Adolescent Behavior Letter, The - Jan-89
Brown University Digest of Addiction Theory & Applications, The -
January 1989
Brown University Long-Term Care Quality Letter, The - January 1989
Buffalo News, The - November 1992
Builder - November 1992
Building Design & Construction - Jan-89
Building Supply Home Centers - January 1989
Bulletin - January 1984 to December 1989
Bulletin of Economic Research - January 1992 to September 1992
Bulletin of the Atomic Scientists - January 1993
Bulletin's Frontrunner, The - November 1996
Business & Commercial Aviation - January 1994
Business & Economic Review - May-83
Business & Health - January 1991
Business & Society - 1980
Business & Society Review - Winter 1972
Business Africa - Jan-93
Business America - October 1978

Business and Society - January 1993
 Business and Society Review - January 1992
 Business China - Feb-93
 Business Communications Review - January 1991
 Business Credit - January 1992
 Business Eastern Europe - Dec-87
 Business Economics - January 1989
 Business Europe - 01/89 to Present
 Business Forum - 1981
 Business History - 10/91 to Present
 Business History Review - January 1990
 Business Horizons - January 1990
 Business Information Review - Jan-93
 Business Insurance - Dec-87
 Business Journal, The - January 1991
 Business Latin America - Jan-93
 Business Lawyer - November 1981
 Business Mailers Review - January 1997
 Business Mexico - March 1989
 Business Owner - Jun-86
 Business Perspectives - October 1989
 Business Quarterly - January 1989
 Business Record (Des Moines) - May 1990 to January 1993
 Business Strategy Review - Spring 1992
 Business Week - January 1975
 Business Wire - September 1983
 Buzzworm's Earth Journal - January 1993 to January 1994
 C/C++ Users Journal - Jul-94
 Ca - 01/92 to Present
 Cabinet Maker and Retail Furnisher -
 Cadcam - January 1990
 California Business - June 1985
 California Journal - October 1989
 California Law Review - July 1982
 California Management Review - January 1992
 Cambridge Journal of Economics - Mar-93
 Campaign-London - Jul-93
 Camping Magazine - 01/93 to Present
 Canada's Business Climate - Winter 1991
 Canadian Appraiser - Nov-84
 Canadian Banker - 1989 to Present
 Canadian Business - 01/83 to 08/89
 Canadian Business Law Journal - May-86
 Canadian Chemical News - 1989 to Present
 Canadian Composer, The - 04/93 to 12/93
 Canadian Dimension - January 1991
 Canadian Geographic - January 1994
 Canadian Historical Review - January 1993
 Canadian Journal of Economics - Feb-86
 Canadian Labour - January 1989 to August 1990
 Canadian Machinery and Metalworking - January 1990

Canadian Mining Journal - Dec-91
 Canadian Packaging - January 1990
 Canadian Papermaker - September 1992
 Canadian Plastics - Feb-88
 Canadian Public Administration - January 1991 to December 1991
 Canadian Public Policy - Mar-88
 Cancer News - January 1989 to December 1994
 Cancer Weekly Plus - January 1989
 Candy Industry - January 1993
 Capital Style - Nov-97
 Capital Times (Madison) - January 1994
 Capital, The (Annapolis) - 01/94 to Present
 Card News - January 1988
 Carnegie-Rochester Conference Series on Public Policy - 1978
 Case Western Reserve Journal of International Law - 1993
 Cash Management News - May-93
 Catalog Age - January 1991
 Catholic World, The - January 1993
 CBS News Transcripts - varies
 CCI-Canmaking & Canning International - June 1989 to May 1990
 CDA - Investnet Insiders' Chronicle - January 1993
 CDC AIDS Weekly - December 1988 to December 1990
 CD-ROM News Extra - January 1993 to October 1994
 CD-ROM Professional - 01/89 to Present
 CD-ROM World - 01/93 to Present
 Cellular Business - January 1991
 Cellular Marketing - May 1991
 Central European - Apr-93
 Ceramic Industry - May 1989
 Ceramics Monthly - January 1993
 CFO Alert - January 1992
 CFO: The Magazine for Senior Financial Executives - March 1987-
 November 1996
 Chain Drug Review - May 1989
 Chain Store Age - January 1993
 Chain Store Age - General Merchandise Trends - December 1984
 Chain Store Age Executive - Jan-83
 Chain Store Age Executive with Shopping Center Age - January 1983
 Challenge - January 1992
 Change - January 1993
 Charleston Gazette, The - January 1994
 Chartered Accountants Journal of New Zealand - May-94
 Chatelaine - January 1993
 Chemical Business - May 1989 to April 1994
 Chemical Economic Report - Aug-92
 Chemical Engineering - January 1981
 Chemical Marketing Reporter - January 1989
 Chemical Week - January 1975
 Chemistry and Industry - May 1989
 Chest - April 1989
 Chicago Magazine - January 1993

Chicago Sun-Times - January 1992
 Chief Executive (US) - January 1992
 Child Health Alert - January 1989
 Children Today - January 1983
 Children's Business - January 1990
 Chilton's Committee Markups - January 1995-December 1995
 Conservationist - 01/93 to Present
 Construction Equipment - 01/89 to Present
 Construction Products - 03/93 to Present
 Construction Review - 01/83 to 12/90
 Consultant - 01/89 to Present
 Consumer Electronics - 01/83 to 03/90
 Consumer Policy Review - Jan-94
 Consumer Reports - January 1988
 Consumers Digest - January 1992
 Consumers' Research Magazine - January 1992
 Contractor - January 1989
 Control and Instrumentation - January 1990
 Converting Magazine - Nov-96
 Cornell Hotel & Restaurant Administration Quarterly - January 1992
 Corporate Board - January 1989
 Corporate Cashflow Magazine - August 1988
 Corporate Computing - June 1992 to June 1993
 Corporate Financing Week - From 1/11/88
 Cosmetic World News - June 1990
 Cosmetics and Toiletries - January 1990
 Cosmetics International - January 1990
 Cosmopolitan - January 1990
 Country Journal - Food Engineering - January 1989
 Chilton's Hardware Age - January 1983
 China Business Review, The - January 1990
 Christian Century, The - January 1993
 Christian Science Monitor, The - January 1980
 Christianity Today - January 1993
 CIO - Sep-87
 City Journal - December 1996
 Civil Engineering - Mar-88
 Clearing House, The - January 1993
 Clinical Diabetes - June 1989
 CNN Transcripts - 01/92 to Present
 Coal & Synfuels Technology - October 1988
 Coal Outlook - January 1997
 Coatings - May 1991
 Colonial Homes - January 1993
 Colorado Business Magazine - Jan-89
 Columbia Journal of World Business - 01/90 to Present
 Columbia Journalism Review - 01/91 to Present
 Columbia Law Review - 10/82 to Present
 Columbus Dispatch - 01/91 to Present
 Comline: Biotechnology and Medical Industry of Japan –
 December 1991 to January 1992

Comline: Chemical Industry of Japan - December 1991 to February 1992
Comline: Computer Industry of Japan - December 1991 to February 1992
Comline: Consumer Goods - Apr-97
Comline: Industrial Automation Industry of Japan – December 1991 to December 1992
Comline: Telecommunications Industry of Japan – December 1991 to February 1992
Comline: Transportation Industry of Japan - January 1991 to December 1991
Commentary - January 1993
Commercial Appeal, The - January 1994
Commercial Investment Real Estate Journal - Spring 1986
Commercial Lending Review - Spring 1994
Common Cause Magazine - January 1991 to Summer 1996
Commonwealth - August 1992
Communication World - January 1983 to November 1992
Communications - Jun-76
Communications Daily - January 1984
Communications International - January 1990
Communications News - January 1990
Communications of the ACM - January 1988
Communications Week - 01/91 to Present
Commuter-Regional Airline News - January 1991
Compass Newswire - Mar-94
Compensation and Benefits Review - July 1985
Competitive Intelligence Review - 1996
Compute - January 1991 to September 1994
Computer & Communications Decisions - May 1987 to March 1988
Computer & Software News - January 1988 to May 1989
Computer Conference Analysis Newsletter, The - March 1990
Computer Dealer News - January 1991
Computer Decisions - January 1983 to April 1989
Computer Design - January 1988 to June 1994
Computer Graphics World - January 1990
Computer Industry Report - January 1992
Computer Language - January 1989 to June 1993
Computer Marketing & Distribution Report - January 1994 to October 1994
Computer Networks & ISDN Systems - Dec-85
Computer Pictures - January 1989
Computer Publishing and Advertising Report - January 1994 to February 1995
Computer Reseller News - January 1991
Computer Shopper - July 1991
Computer Weekly - January 1990
Computer-Aided Engineering - January 1989 to May 1994
Computergram International - January 1989
Computers & Operations Research - 1978
Computers & Security - Mar-86
Computers in Banking - January 1988 to September 1990
Computers in Libraries - January 1988
Computerworld - January 1982
Computing Canada - June 1991
Concrete Products - May 1991
Congressional January 1994
Country Living - January 1993

Country Profile - Indochina, Vietnam, Laos, Cambodia - current
Country Profile - Poland - current
Country Profile - South Korea North Korea - current
Country Report - Baltic Republics: Estonia, Latvia, Lithuania - current
Country Report - Georgia, Armenia, Azerbaijan, Central Asian Republics – current
Country Report - Hong Kong, Macau - current
Country Report - Mexico - current
Country Report - Russia - current
Countryside & Small Stock Journal - January 1993
CPA Journal, The - January 1989
Crafts 'n Things - January 1993
Crain's Cleveland Business - January 1986
Credit Card Management - Mar-88
Credit Union Executive - January 1992
Crossborder Monitor - Apr-93
Cruising World - January 1993
Current - January 1993
Current Competition - January 1997
Current Health 2 - January 1989
Custom Builder - January 1989
Daedalus - January 1993
Daily News Record - January 1983
Daily Report Card - 06/91 to Present
Dairy Foods - January 1986
Dairy Industries International - January 1990
Dance Magazine - January 1994
Data Based Advisor - January 1989
Data Channels - December 1987
Data Communications - 01/82 to Present
Database - July 1988
Databased Web Advisor - January 1994
Datamation - January 1986
Daybook (Federal News Service) - May 1991
DBMS - Mar-91
Dealer Business - January 1991
DealerNews - January 1994
DEC Professional - March 1991
DEC User - January 1990 to July 1994
Decision Sciences - Jul-83
Decision Support Systems - Dec-85
Defense & Aerospace Electronics - From January 1990
Defense Cleanup - January 1997
Defense Counsel Journal - Jan-96
Defense Daily - February 1988
Defense Electronics - January 1982
Demography - Nov-71
Des Moines Register - December 1992
Design Quarterly - January 1994
Detroit News, The - April 1995
DG Review - January 1988 to July 1992
Diabetes - June 1989

Diabetes Forecast - January 1989
 Diabetes in the News - January 1988 to June 1995
 Diesel Progress Engines & Drives - January 1989
 Digital Age - March 1991
 Digital Media - June 1991
 Digital Systems Journal - November 1992
 Direct - January 1991
 Directors & Boards - January 1991
 Discount Store News - February 1983
 Discover - January 1993
 Dispute Resolution Journal - Dec-93
 Distribution - January 1983
 Doctor's People Newsletter - January 1989 to March 1992
 Document Delivery World - February 1993
 Document Image Automation Update - March 1991 to December 1992
 Document Imaging Report - April 1991
 Do-It-Yourself Retailing - January 1991
 Doors and Hardware - January 1991
 Down Beat - January 1994
 Dr. Dobbs Journal - April 1988
 Drama Review - January 1994
 Drug & Cosmetic Industry - January 1989
 Drug Store News - January 1990
 Drug Topics - January 1983
 E - January 1993
 Early American Life - Jan-94
 East Asian Executive Reports - September 1979
 East West - From January 1989 to December 1991
 Eastern European Economics - Winter 1993
 Ebony - January 1989
 EC&M Electrical Construction & Maintenance - January 1991
 Econometrica - Mar-72
 Economic & Industrial Democracy - Nov-89
 Economic Commentary (Federal Reserve Bank of Cleveland) - 1982
 Economic Geography - January 1992
 Economic Indicators - January 1992
 Economic Inquiry - January 1989
 Economic Journal - January 1992 to September 1992
 Economic Modelling - Jan-92
 Economic Policy - Jan-86
 Economic Quarterly (Federal Reserve Bank of Richmond) - Winter 1993
 Economic Record - January 1994
 Economic Review - January 1990 to September 1994
 Economic Review (Federal Reserve Bank of Atlanta) - Nov-81
 Economic Review (Federal Reserve Bank of Cleveland) - Apr-80
 Economic Review (Federal Reserve Bank of Dallas) - Jan-86
 Economic Review (Federal Reserve Bank of Kansas City) - Mar-86
 Economic Review (Kansallis) - March 1990
 Economica - Nov-71
 Economist, The - January 1975
 Economist-Leiden - 1981

Edell Health Letter, The - January 1989 to January 1994
Edge - January 1987
Edge: Work-Group Computing Report - May 1990
EDI Update -
Editor & Publisher - March 1993
EDN - January 1989
Education & Training - 1992
EFT Report - December 1987
EFTA News - January 1989
Election Weekly - February 1992
Electric Light & Power - January 1990
Electrical World - January 1992
Electricity Journal - January 1997
Electronic Advertising & Marketplace Report - 1/94 to present
Electronic Business Buyer - January 1988
Electronic Design - January 1983
Electronic Engineering Times - December 1994
Electronic Learning - January 1988
Electronic News - Nov-91
Electronics - June 1991
Electronics Now - January 1993
Electronics Weekly - June 1991
E-MJ - Engineering & Mining Journal - January 1990
Employee Benefits Journal - Mar-86
Employee Counseling Today - 01/92 to Present
Employee Relations - 1983
Employee Relations Law Journal - January 1989
Employment Bulletin & Industrial Relations Digest - 1993
Employment Gazette - Jan-92
Employment News - Jan-93
Employment Relations Today - January 1992
Endless Vacation - Resort Condominiums International, The - July 1994
Energy Daily, The - January 1992
Energy Economics - Jan-92
Energy Economist - Jan-93
Energy Journal, The - January 1989
Energy Report - January 1988
Energy User News - January 1983
Engineering and Mining Journal - January 1981
Engineering Economist - January 1992
Enterprise Systems Journal - September 1994
Entrepreneurship: Theory and Practice - January 1992
Environment - January 1993
Environmental Action Magazine - January 1993
Environmental Management & Health - 1992
Environmental Nutrition - January 1989
Equal Opportunities Review - 06/93 to Present
Esquire - January 1993
Essence - January 1989
Estate Planning - January 1985
Euromoney Treasury Manager - Apr-93

Europe 2000 - May 1989
European Business Review - 1992
European Cosmetic Markets - January 1989
European Economic Review - Jun-86
European Journal of Information Systems - Jan-93
European Journal of Operational Research - Jun-86
European Motor Business - 3rd quarter 1994
European Retail - Aug-94
European Rubber Journal - May 1989
Exceptional Children - January 1988
Exceptional Parent, The - January 1989 to July 1994
EXE - August 1994
Executive Development - 1992
Executive Female - January 1989
Executive Health's Good Health Report - June 1991
Facilities - 01/92 to Present
Family Handyman, The - January 1992
FCC Report - May 1992
FDA Consumer - January 1984
FDCH Congressional Hearings Summaries - January 1995
FDCH Congressional Press Releases - November 1993
FDCH Transcripts of Political Events - January 1995
FDM, Furniture, Design & Manufacturing - Jan-96
Federal Communications Law Journal - 1984
Federal News Service - Aug-88
Federal Reserve Bank of Kansas City Financial Industry Perspectives - Mar-86
Federal Reserve Bank of Richmond: Cross Sections - Nov-81
Federal Reserve Bank of St. Louis National Economic Trends - 1986
Federal Reserve Bank of St. Louis Review - January 1992
Federal Reserve Bulletin - January 1970
Fertilizer International - May 1989
Fiber Optics News - December 1987
Field & Stream - January 1994
Film Comment - January 1994
Film Quarterly - January 1994
Finance & Development - January 1990
Finance and Development - January 1990
Financial Consultant - Spring 1996-Summer 1996
Financial Executive - Dec-84
Financial Management - January 1992
Financial Market Trends - Jan-90
Financial Post, The - January 1990, National Post from October 1998
Financial Review - Nov-85
Financial Services Report - January 1988
Finnish Trade Review - May 1989 to October 1993
Fleet Owner - Aug-88
Flight International - Dec-87
Flower & Garden Magazine - January 1993
Focus Japan - Jan-93
Folio: The Magazine for Magazine Management - Nov-84
Folio's Publishing News - January 1991 to January 1993

Food & Beverage Marketing - January 1990
 Food and Nutrition - January 1984
 Food Engineering International - 01/91 to Present
 Food in Canada - January 1990
 Food Manufacture - From January 1997
 Food Processing - January 1992
 Food Trade Review - January 1990
 Footwear News - January 1983
 Forbes - Nov-89
 Foreign Affairs - Jul-78
 Foreign Policy - 01/93 to Present
 Fortune - January 1977
 Foundry Management & Technology - March 1983
 Frozen and Chilled Foods - January 1990
 Frozen Food Age - April 1991
 Frozen Food Digest - January 1992
 Fund Raising Management - January 1989
 Futures (Cedar Falls) - Jan-89
 Futures: Magazine of Commodities & Options - 01/90 to Present
 Futurist, The - January 1989
 Gas Daily - August 1989
 Gas Markets Week - January 1997
 Gas Storage Report - January 1997
 Gas Transportation Report - 1-97 to Present
 Gas World International - January 1990
 General Accounting Office Financial Reports - January 1994
 Generations - January 1989
 George Washington Journal of International Law & Economics - 1992
 German Brief - Jan-93
 Gifts & Decorative Accessories - 01/89 to Present
 Global Communications - 01/91 to Present
 Global Finance - Jan-91
 Global Trade & Transportation - January 1990
 Golf Magazine - January 1992
 Good Housekeeping - January 1989
 Gorman's New Product News - January 1989
 Governing Magazine - January 1992
 Government Computer News - January 1987
 Government Executive - February 1990
 Government Finance Review - February 1992
 Graphic Arts Monthly - January 1983
 Greenwire - May 1991
 Greetings Magazine - April 1991
 Grocery Marketing - January 1990
 Group & Organization Management - February 1992
 Growth & Change - Jul-85
 Harper's Bazaar - January 1992
 Harper's Magazine - 01/93 to Present
 Hartford Courant, The - Dec-87
 Harvard Business Review - January 1976
 Harvard Health Letter - January 1989

Hastings Center Report, The - January 1988
Health - July 1983
Health Affairs - Winter 1995
Health Care Financing Review - January 1989
Health Care Management Review - January 1992
Health Care Strategic Management - July 1994
Health Industry Today - June 1989
Health Management Technology - January 1988
Health News - January 1988
Health News & Review - January 1991
Health Services Management - Winter 1987
Health Services Research - January 1992
Healthcare Financial Management - January 1989
HealthFacts - January 1988
HealthTips - January 1988 to June 1994
HeartCare - May 1990 to August 1990
Heating, Piping, Air Conditioning - May 1989
Heritage Foundation Reports - May 1977
Hewlett-Packard Journal - January 1988
HFN The Weekly Newspaper for Home Furnishings Network - Jan-95
High Technology Law Journal - Spring 1987
Hill, The - November 1995
Hispanic - Jan-93
History Today - January 1993
Home Mechanix - January 1994
Home Office Computing - January 1990
Horn Book Magazine, The - January 1993
Horticulture, The Magazine of American Gardening - January 1993
Hospital & Health Services Administration - January 1989
Hospital Materials Management - July 1994
Hospitality Design - January 1989
Hospitals & Health Networks - January 1983
Hot Rod - January 1992
Hotel & Motel Management - January 1993
Hotline, The - January 1990
House Beautiful - January 1992
Houston Chronicle, The - June 1991
HP Professional - June 1991
HR Focus - January 1989
HRMagazine - January 1992
Human Relations - January 1992
Human Resource Development Quarterly - Winter 1993
Human Resource Management - 1982
Human Resource Planning - January 1992
Human Systems Management - Dec-82
Humanist, The - January 1993
Hydraulics & Pneumatics - January 1983
Hydrocarbon Processing - May 1989
I&CS (Instrumentation & Control Systems) - 01/88 - 07/94
I.T. Magazine - January 1990 to January 1994
I/S Analyzer Case Studies - Mar-94

IBM System User - January 1990 to July 1994
 ID: The Voice of Foodservice Distribution - January 1990
 Idaho Statesman - Dec-87
 IDC Japan Report - 01/91 to Present
 IDP Report - 01/88 to 06/88
 IIE Solutions - 1/89 TO present
 IMC Journal - 3rd quarter 1976
 Implement & Tractor - 01/83 to Present
 Improved Recovery Week - 01/90 to Present
 Inc. - 01/83 to Present
 Independent Living Provider - March 1989
 Indiana Business Magazine - 1/89 to Present
 Indianapolis Business Journal - 01/85 to Present
 Industrial & Labor Relations Review - 01/89 to Present
 Industrial Computing - April 1989 to November 1990
 Industrial Distribution - January 1989
 Industrial Management - Jan-90
 Industrial Paint & Powder - January 1989
 Industrial Relations Journal - January 1992 to September 1992
 Industry Week - January 1981
 Info Canada - Oct-91
 Information & Management - Feb-86
 Information Advisor, The - 05/91 to Present
 Information Economics and Policy - 1983
 Information Executive - January 1990 to January 1992
 Information Processing Letters - Jan-89
 Information Resources Management Journal - Winter 1993
 Information Society - 1983
 Information Strategy: The Executive's Journal - Fall 1986
 Information Systems Management - Spring 1986
 Information Systems Research: ISR: A Journal of the Institute of Management Sciences - Mar-93
 Information Technology and Libraries - January 1992
 Information Today - July 1988
 Information World Review - Jan-93
 Infosystems - December 1984 to March 1988
 Infrastructure Finance - January 1994
 Ink & Print - January 1990
 Innovation - January 1989
 Inquiry - Winter 1988
 Inside Media - January 1991
 Inside MS - January 1989
 Insight on the News - January 1993
 INSTEP - Jan-93
 Institutional Investor - January 1988
 Instructor - January 1994
 Insurance & Technology - Feb-97
 Insurance Review - 06/89 to 11/91
 Insurance: Mathematics & Economics - Jan-86
 Integrated Manufacturing Systems - 1992
 Interactive Content - July 1994
 Interavia Business & Technology - January 1994

Interfaces - Feb-85
Interior Design - January 1983
Internal Auditing - Fall 1987
Internal Auditor - January 1991
International Bond Investor - Mar-93
International Business - September 1991 to May 1992
International Economic Review - Feb-86
International Journal of Advertising - January 1990
International Journal of Career Management - 1992
International Journal of Clothing Science & Technology - 1992
International Journal of Contemporary Hospitality Management - 1992
International Journal of Health Care Quality Assurance - 1992
International Journal of Industrial Organization - Mar-86
International Journal of Information Management - Mar-92
International Journal of Management - Mar-93
International Journal of Parallel Programming - Dec-88
International Journal of Production Economics - Sep-91
International Journal of Project Management - Feb-92
International Journal of Public Administration - Feb-87
International Journal of Public Sector Management - 1992
International Journal of Purchasing & Materials Management - Winter 1991
International Journal of Research in Marketing - 1985
International Journal of Retail & Distribution Management - January 1992
International Journal of Service Industry Management - 1992
International Journal of Technology Management - 1986
International Journal of Wine Marketing - 1992
International Management - January 1990 to September 1994
International Monetary Fund Staff Papers - January 1992
International Motor Business - Jan-93
International Review of Strategic Management - 1992
International Studies of Management & Organization - January 1992
International Trade Forum - January 1990
International Travel News - April 1991
Interview - January 1994
Investment Dealer's Digest - January 1990
ISR: Intelligent Systems Report - June 1991 to May 1992
Israel Business Today - January 1990
Issues in Law & Medicine - January 1989
Jacksonville Business Journal - May 1990 to February 1993
Japan 21st - Jan-92
Japanese Motor Business - 3rd quarter 1994
Jet - January 1992
Jewelers Circular Keystone - January 1989
Journal of Abnormal Child Psychology - January 1993
Journal of Accountancy - January 1987
Journal of Accounting & Economics - Apr-85
Journal of Accounting & Public Policy - Winter 1986
Journal of Accounting Research - Autumn 1972
Journal of Accounting, Auditing & Finance - Fall 1977
Journal of Advertising - January 1990
Journal of Advertising Research - Jan-94

Journal of Applied Econometrics - Jan-92
Journal of Applied Probability - Mar-92
Journal of Applied Psychology - Aug-86
Journal of Asian Business - Winter 1993
Journal of Asset Protection - Jan-96
Journal of Banking & Finance - Dec-85
Journal of Business - Oct-91
Journal of Business & Economic Statistics - Jan-88
Journal of Business Administration - January 1992
Journal of Business Finance & Accounting - Autumn 1979
Journal of Business Strategy - 1980
Journal of Business, The - January 1992
Journal of Coatings Technology, The - January 1990
Journal of Collective Negotiations in the Public Sector - 1980
Journal of Commerce - August 1986
Journal of Commercial Lending - January 1992
Journal of Common Market Studies - January 1992 to September 1992
Journal of Communication - Winter 1973
Journal of Compensation & Benefits - Nov-85
Journal of Consumer Affairs - January 1989
Journal of Consumer Marketing - 1985
Journal of Consumer Policy - January 1992 to August 1992
Journal of Consumer Research - January 1989
Journal of Corporate Taxation - Spring 1974
Journal of Developing Areas - Apr-85
Journal of Development Economics - Mar-86
Journal of Development Studies - January 1992
Journal of Direct Marketing - Winter 1992
Journal of Econometrics - Aug-86
Journal of Economic Behavior & Organization - Dec-85
Journal of Economic Dynamics & Control - Nov-85
Journal of Economic Literature - Mar-86
Journal of Economic Psychology - Jun-86
Journal of Economic Studies - 1983
Journal of Economic Theory - Feb-93
Journal of Electronic Defense - May 1989
Journal of Engineering & Technology Management - Sep-89
Journal of Environmental Economics & Management - Dec-85
Journal of Euromarketing - 1991
Journal of Family Practice - May 1989
Journal of Finance - January 1992
Journal of Financial Economics - Mar-86
Journal of Financial Research - 1983
Journal of Financial Services Research - May-92
Journal of Futures Markets - 1982
Journal of General Management - Spring 1975
Journal of Global Information Management - Winter 1993
Journal of Global Marketing - 1998
Journal of Health Care Finance - January 1992
Journal of Health Care Marketing - March 1991
Journal of Housing Research - 1992

Journal of Human Resources - January 1992
 Journal of Industrial Economics - January 1992 to September 1992
 Journal of International Business Studies - January 1989
 Journal of International Consumer Marketing - 1993
 Journal of International Economics - Nov-85
 Journal of International Financial Management & Accounting - Spring 1992
 Journal of International Marketing & Marketing Research - Feb-92
 Journal of International Money & Finance - Mar-86
 Journal of Investing, The - Winter 1994
 Journal of Labor Research - 1980
 Journal of Language for International Business, The - 1992
 Journal of Law & Economics - October 1994
 Journal of Legal Economics - Spring 1994
 Journal of Lending & Credit Risk Management - 1992
 Journal of Management - January 1992
 Journal of Management in Medicine - 1992
 Journal of Management Studies - January 1992 to September 1992
 Journal of Marketing - January 1989
 Journal of Marketing Research - January 1989
 Journal of Mathematical Economics - Dec-84
 Journal of Monetary Economics - Nov-85
 Journal of Money, Credit & Banking - January 1989
 Journal of Occupational & Organizational Psychology - Mar-92
 Journal of Operations Management - Nov-85
 Journal of Organizational Behavior Management - 1981
 Journal of Organizational Change Management - 1992
 Journal of Partnership Taxation, The - January 1985
 Journal of Portfolio Management - Winter 1988
 Journal of Post Keynesian Economics - January 1992
 Journal of Products & Toxics Liability - 1993
 Journal of Professional Services Marketing - Spring 1986
 Journal of Project Finance, The - Spring 1995
 Journal of Property Management - January 1992
 Journal of Public Economics - Feb-86
 Journal of Public Policy & Marketing - 1983
 Journal of Quality Technology - Jan-89
 Journal of Real Estate Taxation, The - January 1985
 Journal of Rehabilitation, The - January 1989
 Journal of Retail Banking Services - March 1991
 Journal of Retailing - January 1989
 Journal of Risk and Insurance - January 1992
 Journal of School Health - January 1989
 Journal of Small Business Management - January 1989
 Journal of State Government - May 1989 to July 1990
 Journal of Systems & Software - Nov-85
 Journal of Systems Management - January 1989
 Journal of Taxation of Investments - Autumn 1983
 Journal of Taxation, The - January 1985
 Journal of the American Dietetic Association - January 1989
 Journal of the American Planning Association - January 1992
 Journal of the American Real Estate & Urban Economics Association - January 1992

Journal of the ASIS - Mar-86
Journal of the Assoc. for Computing Machinery - Jan-91
Journal of the Market Research Society - January 1992
Journal of Toxicology: Clinical Toxicology - March 1992
Journal of Transport Economics & Policy - Jan-86
Journal of World Trade - Nov-79
Kansas City Star, The - September 1, 1994
Kiplinger's Personal Finance Magazine - 01/94 to Present
Labor Studies Journal - January 1992
Ladies Home Journal - January 1983
LAN Magazine - July 1991
LAN Technology - April 1991 to April 1993
Lancet, The - September 1987
Land Economics - January 1989
Lasers & Optronics - January 1990 to July 1994
Law and Policy in International Business - January 1992
Law Practice Management - Jan-82
Lewiston Morning Tribune - June 1990
Library Software Review - July 1988
Library Technology Reports - January 1993
Library Trends - January 1993
Link-Up - July 1988
Lloyds Bank Annual Review - January 1992 to January 1992
Lodging Hospitality - January 1989
Logistics and Transportation Review, The - January 1989
Logistics Focus - Aug-93
Logistics Information Management - 1992
Long Range Planning - Feb-86
Long-Distance Letter - December 1987 to June 1992
Los Angeles Times - From January 1, 1985
Lotus - January 1987 to November 1992
Louisville Courier Journal, The - 1/87 to Present
Machine Design - January 1983
Maclean's - January 1985
MacUser - March 1987
MacWEEK - July 1988
Macworld - Mar-87
Magazine Antiques, The - January 1994
Manage - 01/89 to Present
Management Accounting (USA) - January 1992
Management Development Review - 1992
Management International Review - January 1992
Management Japan - Autumn 1983
Management Quarterly - January 1992
Management Research News: MRN - 1992
Management Review - January 1989
Management Today - January 1989
Manager Magazine - 1996
Managerial & Decision Economics - Mar-87
Managerial Auditing Journal - 1992
Managerial Finance - 1980

Managing Office Technology - January 1983
Manchester School of Economic & Social Studies - Mar-93
Manufacturing Chemist - January 1990
Marine Fisheries Review - January 1992
Marketing - January 1990
Marketing & Research Today - Feb-89
Marketing Computers - May 1989
Marketing Health Services - March 1991
Marketing Management - 1993
Marketing News - January 1989
Marketing Research: A Magazine of Management & Applications - Summer 1996
Marketing Science - 1984
Marketing Week - July 1994
Mass Transit - 01/91 to Present
Material Handling Engineering - 1989 to Present
Materials Engineering - 1989 to 12/92
Mathematical Finance - Jan-92
Mathematics of Operations Research - Nov-85
McKinsey Quarterly, The - 01/92 to Present
Mealey's Fen-Phen/Redux - Nov-97
Mealey's Year 2000 Report - Feb-98
Mechanical Engineering-CIME - May 1989
MediaWeek - Jan-91
Medical Economics - January 1990
Medical Laboratory Observer - January 1983
Medical Marketing & Media - Aug-91
Medical Update - January 1989
Medical World News - February 1992 to February 1994
Medicine - January 1990
MEED Middle East Economic Digest - September 1990
Meetings & Conventions - January 1983 to November 1985
Megawatt Daily - January 1997
Megawatt Markets Week - January 1997
Men's Health - January 1989
Merchandising - July 1984 to March 1986
Mergers & Acquisitions - January 1990
Metal Center News - Oct-89
Metallurgia - May-89
Metals Industry News - March 1990
Metalworking News - January 1987 to September 1990
Michigan CPA - 10/89 to Present
Michigan Law Review - 11/82 to Present
Microprocessing and Microprogramming - Apr-86
Microprocessor Report - January 1990
Microsoft Systems Journal - January 1988
Microwave Journal - May 1989
Mid-America Insurance - Jan-88
Mid-Atlantic Journal of Business - January 1989
Middle East Executive Reports - September 1978
Midrange Systems - July 1981
Midwest Real Estate News - May 1991 to May 1992

Milbank Quarterly, The - March 1989
Military Space - January 1988
Milling & Baking News - May 1989
Milwaukee Journal-Sentinel - From September 17, 1995
Mine Regulation Reporter - November 1990
Mini-Micro Systems - January 1989 to March 1989
Mining Magazine - Jun-91
Minneapolis Star Tribune - Sep-91
MIS Quarterly - 01/92 to Present
MIS Week - 01/88 to 06/90
Mitsubishi Bank Review - Jun-86
Mobile Phone News - 01/91 to Present
Model Railroader - 01/93 to Present
Modern Brewery Age - 01/90 to Present
Modern Casting - 1989 to Present
Modern Healthcare - 1/90 to Present
Modern Machine Shop - 01/89 to Present
Modern Office Technology - 01/83 to 06/93
Modern Paint & Coatings - 01/90 to Present
Modern Plastics - 01/91 to Present
Modern Power Systems - January 1990
Modern Tire Dealer - January 1989
Money - January 1982
Montgomery Advertiser - 07/92 to Present
Monthly Labor Review - 01/84 to Present
Monthly Review - 01/83 to Present
Morbidity & Mortality Weekly Report - 06/89 to Present
Morning Star (Wilmington) - June 4, 1994
Mortgage Banking - January 1990
Mortgage Marketplace - July 1991
Mother Earth News - January 1992
Mother Jones - January 1993
Mothering - January 1989
Motor Age - January 1989
Motor Boating & Sailing - January 1993
Motor Report International - May 1989 to December 1993
Motor Trend - January 1992
Multichannel News - January 1990
Municipal & Industrial Water & Pollution Control - April 1992
Music Trades, The - May 1989
NABE Outlook & Policy Survey - June 1991 to December 1991
National Catholic Reporter - January 1993
National Fisherman - January 1992 to May 1992
National Forum - January 1989 to December 1990
National Institute Economic Review - January 1989
National Journal - 01/77 to Present
National Journal's CongressDaily - June 1991
National Journal's Daily Energy Briefing - Oct-97
National Journal's House Race Hotline - Mar-98
National Narrowcast Network Transcripts - 1/94 to present
National Parks - January 1993

National Petroleum News - January 1983
 National Post, The - Financial Post from January 1990, National Post from October 1998
 National Productivity Review - January 1989
 National Public Accountant, The - January 1990
 National Public Radio - Jan-92
 National Real Estate Investor - January 1990
 National Review - January 1983
 National Tax Journal - January 1992
 National Underwriter Life & Health/Financial Services Edition - January 1990
 National Underwriter Property & Casualty/Risk & Benefits Management – Jan-88
 Nation's Business - January 1983
 Nation's Cities Weekly - January 1992
 Nation's Restaurant News - February 1983
 Natural Health - January 1993
 Natural History - January 1983 to December 1985
 Navy News & Undersea Technology - January 1988
 NBER Reporter - January 1989
 NCAHF Newsletter - January 1989
 NEA Today - November 1984 to December 1985
 Network News, The - January 1989
 Network VAR - Jun-95
 Network World - May-83
 Networking Management - May 1989 to April 1993
 New Democrat, The - 1/93 to Present
 New England Economic Review - Mar-92
 New England Real Estate News - 07/91 to 01/92
 New Leader, The - 01/83 to Present
 New Perspectives Quarterly - 04/93 to Present
 New Republic, The - 01/83 to Present
 New Scientist - 01/88 to Present
 New Statesman & Society - 01/93 to Present
 New Steel - 10/93 to Present
 New York State Conservationist - Oct-95
 New York Times, The - June 1980
 News Tribune, The (Tacoma) - 01/94 to Present
 Newsbytes News Network - July 1989
 Newsline - January 1992
 Nitrogen - May 1989
 Nonwovens Industry - May 1989
 North American Report on Free Trade - January 1992 to March 1992
 Northwestern Journal of Intl Law & Business - Spring 1982
 NPN: National Petroleum News - Jan-83
 Nursing Homes - Aug-92
 Nutrition Action Healthletter - January 1988
 Nutrition and Health Forum - Mar-97
 Nutrition Forum - January 1989
 Nutrition Health Review - January 1989
 Nutrition Research Newsletter - January 1989
 Nutrition Today - January 1989
 Occupational Hazards - January 1989
 Occupational Outlook Quarterly - June 1983

OECD Economic Outlook - January 1990
 OECD Economic Studies - January 1991
 OECD Economic Surveys - Austria - Jan-91
 OECD Economic Surveys - Belgium-Luxembourg - Jan-91
 OECD Economic Surveys - Iceland - Jan-91
 OECD Economic Surveys -Australia - January 1991
 OECD Economic Surveys -Canada - January 1991
 OECD Economic Surveys -Denmark - February 1993
 OECD Economic Surveys -Finland - January 1991
 OECD Economic Surveys -France - January 1991
 OECD Economic Surveys -Germany - January 1991
 OECD Economic Surveys -Greece - January 1991
 OECD Economic Surveys -Ireland - January 1991
 OECD Economic Surveys -Italy - January 1991
 OECD Economic Surveys -Japan - January 1991
 OECD Economic Surveys -Netherlands - January 1991
 OECD Economic Surveys -New Zealand - January 1993
 OECD Economic Surveys -Norway - March 1992
 OECD Economic Surveys -Portugal - January 1991
 OECD Economic Surveys -Spain - January 1991
 OECD Economic Surveys -Sweden - January 1991
 OECD Economic Surveys -Switzerland - January 1991
 OECD Economic Surveys -Turkey - April 1993
 OECD Economic Surveys -United Kingdom - January 1991
 OECD Economic Surveys -United States - June 1991
 OECD Observer - January 1989
 Off Road - January 1992
 Offshore - January 1980
 Ohio CPA Journal - 01/94 to Present
 Oil & Gas Journal - 01/78 to Present
 Oil Daily, The - 01/90 to Present
 Oilweek - January 1990
 Omaha World-Herald - 08/94 to Present
 Omni - 01/92 to Present
 Opera News - January 1993
 Optimum - January 1992
 Orange County Register - Jan-87
 Organic Gardening - January 1993
 Organization Studies - January 1992
 Organizational Dynamics - Jan-89
 Ostomy Quarterly - January 1990
 Outdoor Life - January 1992
 Outlook - January 1989
 Oxford Bulletin of Economics & Statistics - Jan-92
 Oxford Economic Papers - Jan-94
 Packaging - Jan-91
 Packaging (Boston) - January 1989
 Packaging Digest - Jan-92
 Packaging Week - Jan-97
 PALAESTRA - June 1990
 Pamphlet by: Alzheimer's Association - January 1987

Pamphlet by: American Academy of Allergy and Immunology – November 1990
 Pamphlet by: American Academy of Dermatology - January 1986
 Pamphlet by: American Academy of Ophthalmology - June 1986
 Pamphlet by: American Academy of Otolaryngology-Head and Neck Surgery - January 1986
 Pamphlet by: American Academy of Periodontology - May 1989
 Pamphlet by: American Association of Suicidology - January 1991
 Pamphlet by: American Board of Medical Specialties - June 1991
 Pamphlet by: American Council on Science and Health - April 1992
 Pamphlet by: American Foundation for the Prevention of Venereal Disease – January 1988
 Pamphlet by: American Foundation for Urologic Disease - July 1993
 Pamphlet by: American Health Care Association - January 1988
 Pamphlet by: American Kidney Fund - January 1987
 Pamphlet by: American Liver Foundation - January 1987
 Pamphlet by: American Lung Association - May 1986
 Pamphlet by: American Psychiatric Association - January 1988
 Pamphlet by: American Society of Plastics and Reconstructive Surgeons – January 1985
 Pamphlet by: American Speech Language Hearing Association - January 1991
 Pamphlet by: American Tinnitus Association - January 1988
 Pamphlet by: Asthma & Allergy Foundation of America - April 1988
 Pamphlet by: Benjamin Company, Inc. - December 1987
 Pamphlet by: Clinical Center Communications - April 1989
 Pamphlet by: Cooley's Anemia Foundation - June 1991
 Pamphlet by: DES Action - December 1990
 Pamphlet by: DES Action-Canada - November 1990
 Pamphlet by: Egg Nutrition Center - October 1987
 Pamphlet by: Epilepsy Foundation of America - January 1986
 Pamphlet by: Food and Drug Administration - January 1992
 Pamphlet by: House Ear Institute - November 1990
 Pamphlet by: Juvenile Diabetes Foundation - November 1990
 Pamphlet by: Leukemia Society of America - May 1987
 Pamphlet by: March of Dimes-Birth Defects Foundation - June 1986
 Pamphlet by: Muscular Dystrophy Association - December 1988
 Pamphlet by: Narcotic Educational Foundation of America - June 1991
 Pamphlet by: National Ataxia Foundation - January 1991
 Pamphlet by: National Cancer Institute - December 1986
 Pamphlet by: National Funeral Directors Association - November 1990
 Pamphlet by: National Headache Foundation - November 1990
 Pamphlet by: National Heart, Lung, and Blood Institute - November 1987
 Pamphlet by: National Hemophilia Foundation - January 1988
 Pamphlet by: National Institute of Mental Health - January 1987
 Pamphlet by: National Jewish Center for Immunology and Respiratory Medicine - January 1987
 Pamphlet by: National Kidney Foundation - January 1986
 Pamphlet by: National Mental Health Association - January 1987
 Pamphlet by: National Osteoporosis Foundation - January 1992
 Pamphlet by: National Reye's Syndrome Foundation - January 1987
 Pamphlet by: National SIDS Foundation - January 1989
 Pamphlet by: National Tuberos Sclerosis Association, Inc. - March 1989
 Pamphlet by: Nonprescription Drug Manufacturers Association – September 1992
 Pamphlet by: Office of Medical Applications of Research - November 1990
 Pamphlet by: Ohio Department of Health - July 1991
 Pamphlet by: Parkinson's Disease Foundation - January 1986

Pamphlet by: RP Foundation Fighting Blindness - January 1986
 Pamphlet by: Scleroderma Federation - June 1991
 Pamphlet by: The American Lupus Society - September 1989
 Pamphlet by: The Cleft Palate Foundation - June 1991
 Pamphlet by: The Crohn's & Colitis Foundation of America - May 1993
 Pamphlet by: The National PTA - January 1988
 Pamphlet by: Tourette Syndrome Association - September 1991
 Pamphlet by: U.S. Department of Health and Human Services - April 1989
 Pamphlet by: U.S. Public Health Service - November 1990
 Pamphlet by: United Scleroderma Foundation - July 1987
 Pamphlet by: Wilson's Disease Association - November 1990
 Paper - 01/89 to 12/93
 Paper Film & Foil Converter - January 1990
 Paperboard Packaging - January 1994
 Paraplegia News - January 1989
 Parents' Magazine - January 1988
 Parks & Recreation - January 1993
 Party & Paper Retailer - January 1991
 Patient Care - January 1989
 PC Computing - August 1988
 PC Magazine - January 1985
 PC Sources - October 1990 to June 1993
 PC User - April 1989
 PC Week - August 1983
 Pediatric Report's Child Health Newsletter - October 1990 to April 1994
 Pediatrics for Parents - January 1988
 Pension Management - January 1990
 Pensions & Investments - January 1987
 Pensions Management - Oct-94
 Penton's Controls & Systems - 09/92 to Present
 People Management - January 1992
 People's Medical Society Newsletter - January 1988
 Performing Arts & Entertainment in Canada - January 1993
 Personal Computing - January 1988 to August 1990
 Personnel Journal - January 1992
 Petersen's Photographic - January 1993
 Petroleum Economist - January 1990
 Petroleum Independent - January 1990
 Petroleum Times Energy Report, formerly Petroleum Times - January 1990
 Pharmaceutical Executive - Oct-94
 Phi Delta Kappan - January 1993
 Phoenix Gazette, The - January 1990
 Photo District News - Jun-91
 Photonics Spectra - May 1989
 Physical Therapy - January 1989
 Physician Executive - January 1989
 PIMA Magazine - January 1990 to December 1990
 Pipe Line Industry - January 1990
 Pipeline & Gas Industry - January 1990
 Pipeline & Gas Journal - 01/90 to Present
 Pit & Quarry - Jul-86

Pittsburgh Post-Gazette - July 1990
Planning - January 1992
Planning Review - Jan-89
Plant Engineering - Jan-98
Plastics Engineering - May 1989
Plastics Technology - April 1989
Plastics World - January 1989
Playboy - January 1983
Playthings - January 1983
Poetry - January 1993
Political Finance & Lobby Reporter, The - 04/91 to Present
Polymers Paint Colour Journal - May 1990
Popular Mechanics - January 1992
Popular Science - January 1983
Population Reports - January 1989
Portland Press Herald - November 1995
Potentials in Marketing - January 1991
Power Engineering - January 1991
Power Generation Technology & Markets - January 1997
PPI:Pulp & Paper International - Jan-90
PR Newswire - 01/80 to Present
Practical Accountant - Dec-96
Prepared Foods - January 1989
Presidential Documents - January 1981
Prevention - January 1989
Process Engineering - January 1990
Production - Jan-89
Professional Builder - Aug-93
Profit-Building Strategies for Business Owners - January 1989 to May 1993
Progressive Architecture - January 1983
Progressive Grocer - January 1983
Providence Journal-Bulletin, The - February 1988
PSA Journal - January 1989
Psychology & Marketing -
Psychology Today - August 1985
Public Administration - January 1992 to September 1992
Public Finance Quarterly - January 1989
Public Health Reports - January 1989
Public Interest - Jan-93
Public Management - January 1993
Public Manager: The New Bureaucrat, The - January 1992
Public Opinion Quarterly - Mar-97
Public Personnel Management - January 1992
Public Relations Journal - January 1989
Public Relations Quarterly - 01/92 to Present
Public Relations Review - Jun-90
Public Roads - January 1991
Public Utilities Fortnightly - January 1991
Public Works - January 1992
Publishers Weekly - January 1990
Pulp & Paper - January 1989

Pulp & Paper International - January 1990
Purchasing - January 1989
Quarterly Journal of Business & Economics - Jan-89
Quarterly Review of Economics & Finance - Jan-94
Quick Frozen Foods International - January 1989
Quill, The - October 1991
R & D - 01/90 to Present
R & D Management - January 1990
Railway Age - January 1989
Rainbow - January 1988 to December 1988
Real Estate Economics - January 1992
Real Estate Finance - Winter 1994
Real Estate Finance Journal -
Real Estate Law Journal -
Real Estate Review -
Real Estate Today - January 1990
Real Estate Weekly - January 1991
Real Living with Diabetes - January 1994 to April 1995
Real Living with Multiple Sclerosis - November 1993
Records Management Quarterly - January 1989
Redbook - January 1989
Regardie's Magazine - January 1989 to February 1995
Regional Science & Urban Economics -
Research & Development - 1/84-12/89
Research in Accounting in Emerging Economies -
Research Policy -
Resident Abroad -
Restaurant Business - January 1983
Restaurant Hospitality - January 1989
Restaurants & Institutions - January 1989
Retail Business-Market Surveys -
Retail Business-Retail Trade Reviews -
Retail World -
Reuter Transcript Report -
Review of Black Political Economy, The - January 1992
Review of Business - January 1989
Review of Economic Conditions in Italy -
Review of Economics & Statistics -
Review of Financial Economics - January 1992
Review of International Economics -
Review of Social Economy - January 1992
Risk Management - January 1989
RN - January 1988
Rocky Mountain News - Jan-94
Rodale's Organic Gardening - January 1993
Roll Call - 07/90 to Present
Royal Bank of Scotland Review - January 1990 to June 1992
RQ - January 1988
Rubber Trends - 06/91 to 03/93
Rubber World - January 1989
Runner's World - January 1989

Russian Life - January 1994
 RV Business - January 1992 to March 1992
 Sacramento Bee - November 1988 to April 1992
 Sales & Marketing Management - January 1983
 Salt Lake City Tribune - Jan-94
 SAM Advanced Management Journal - January 1992
 San Diego Law Review - Spring 1993
 San Diego Union-Tribune - Dec-83
 San Francisco Chronicle - 10/89 to Present
 San Francisco Examiner, The - Aug-93
 Santa Fe New Mexican - 1/97 to present
 Satellite Communications - Jan-90
 Satellite News - January 1988
 Saturday Evening Post - March 1983
 Scholastic Update - September 1984
 School and College - January 1994
 School Arts - January 1993
 School Planning and Management - January 1994
 Science - January 1983
 Science World - January 1993
 Scientific American - January 1983 to June 1993
 Scottish Journal of Political Economy -
 Sea Frontiers - January 1993
 Searcher - May 1993
 Seattle Times, The - August 1988
 Second Opinion - January 1989 to July 1995
 Securities Regulation Law Journal -
 Security -
 Security Management - January 1989
 Semiconductor International - Feb-89
 Sensor Review -
 Set-Aside Alert - January 1994
 Seybold Report on Desktop Publishing, The - January 1991
 Seybold Report on Publishing Systems, The - 01/91 to Present
 SHOOT - January 1994
 Shooting Industry - January 1989
 Sierra - January 1995
 Singapore Accountant -
 Singapore Management Review -
 Situation and Outlook Report: Agricultural Resources – February 1991 to May 1992
 Situation and Outlook Report: Dairy - June 1991 to May 1992
 Situation and Outlook Report: Feed - May 1991 to May 1992
 Situation and Outlook Report: Fruit and Tree Nuts - June 1991 to May 1992
 Situation and Outlook Report: Livestock and Poultry - May 1991 to May 1992
 Situation and Outlook Report: Oil Crops - June 1991 to May 1992
 Situation and Outlook Report: Rice - June 1991 to May 1992
 Situation and Outlook Report: Sugar and Sweetener - June 1991 to March 1992
 Situation and Outlook Report: Tobacco - June 1991 to May 1992
 Situation and Outlook Report: Vegetables and Specialties – June 1991 to May 1992
 Situation and Outlook Report: Wheat - May 1991 to May 1992
 Skeptical Inquirer - January 1994

Skiing - January 1983 to December 1985
Skin Diver - January 1993
Sky & Telescope - January 1993
Sloan Management Review - January 1992
Small Business Economic Trends -
Small Business Economics -
Small Business Forum -
Small Business Reports - January 1992 to November 1994
Smithsonian - January 1983
Soap - Cosmetics - Chemical Specialties - January 1983
Soap, Perfumery & Cosmetics - January 1990
Social Security Bulletin - January 1983
Society - January 1993
Soft-Letter - April 1989
Software Industry Report - January 1991
Software Magazine - January 1988
Solid State Technology - May 1989
Solutions for Better Health - May 1990 to August 1990
South Magazine - May 1989 to June 1991
Southern Economic Journal - January 1992
Southwest Journal of Business & Economics - January 1989
Southwest Real Estate News - May 1991 to May 1992
Space Communications -
Special Delivery - March 1991
Special Libraries - January 1989
Spectrum, The Journal of State Government - March 1986
Sport - January 1992
Sporting Goods Business - January 1993
Sporting News, The - January 1993
Sports Afield - January 1993
SRA Journal - January 1994
St. John's Law Review - Winter 1993
St. Louis Post Dispatch - Jan-89
St. Petersburg Times - January 1987
State Capitols Report - January 1992
State Journal Register - Jan-94
States News Briefs - May 1996
States News Service - Aug-84
Statistical Bulletin-Metropolitan Life Insurance Company - January 1992
STN (formerly STN, Skiing Trade News) - August 1989 to March 1992
Stores - January 1994
Strategic Management Journal -
Strategy & Leadership -
Studies in Economic Analysis -
Success - January 1993
Successful Farming - January 1992
Sulphur - May 1989
Sunset - January 1983
Super Marketing - January 1991
Superfund Week - January 1997
SuperGroup Magazine - May 1991 to December 1991

Supermarket Business - 11/93 to Present
 Supermarket Business Magazine - January 1983
 Supermarket News - January 1983
 Supervision - January 1989
 Supervisory Management - January 1989
 Survey of Current Business - February 1983
 Swedish Economy, The - January 1991
 SwissBusiness - January 1990
 Syracuse Journal of Intl. Law & Commerce - Spring 1992
 Systems Integration Business -
 T H E Journal - January 1988
 Tampa Tribune, The - January 1994
 Tape-Disc Business - January 1991
 Target Marketing - January 1994
 Tax Adviser, The - January 1992
 Tax Executive - January 1989
 Tax Lawyer, American Bar Association - Fall 1981 to Fall 1991
 Tax Management Estates, Gifts & Trust Journal - January 1988
 Tax Management: Estates Gifts & Trusts Journal - Jan-88
 Taxation for Accountants - Jan-85
 TCI - January 1993
 Tea & Coffee Trade Journal - May 1990
 Tech Street Journal - April 1989 to October 3 1991
 Technical Communication - January 1992
 Technology & Learning - September 1990
 Technology Review - January 1983
 Teen Magazine - January 1993
 Telecom World - January 1990
 Telecommuting Review: The Gordon Report - January 1990
 Teleconnect - January 1990
 Telemarketing - January 1991
 Telephony - January 1988
 Tempo -
 Tennessean, The - September 1995
 Texas Business Review - January 1989
 Texas Monthly - January 1995
 Textile World - January 1991
 Tikkun - January 1993
 Time - 1/81 - US Edition, 2/95 - International Edition
 Times Union (Albany), The - Jan-94
 Times-Picayune - January 1993
 TMA Journal -
 Tokyo Business Today - January 1993
 Tooling & Production - January 1989
 Total Health - January 1988
 Town & Country Monthly - January 1993
 Traffic Management - January 1989
 Trailer Boats - January 1993
 Trailer Life - January 1993
 Training - May 1991
 Training & Development - May 1991

Training & Management Development Methods -
Trains Magazine - January 1993
Transpacific - January 1994
Transportation & Distribution - January 1983
Transportation Journal - January 1992
Travel Weekly - 01/83 to Present
Travel-Holiday - January 1993
Trusts & Estates - January 1992
Tufts University Diet & Nutrition Letter - January 1988
Tulsa World - February 1988
U.S. Department of State Dispatch - September 1990
U.S. Distribution Journal - January 1988
U.S. News & World Report - January 1975
U.S. Newswire - Jan-90
UCLA Law Review - October 1982
UN Chronicle - January 1983
UNESCO Courier - January 1983
Uniform Commercial Code Law Journal -
Union Leader - November 1995
United States Banker - January 1983
University of California, Berkeley Wellness Letter, The - January 1989
USA Today - Jan-89
USA Today Magazine - 03/93 to Present
Vegetarian Times - January 1989
Vibrant Life - January 1989
Video Age International - January 1991
Video Business - May 1991
Video Magazine - January 1992
Video Marketing News - November 1990 to June 1994
Video Review - January 1994 to January 1994
Virginia Law Review - Nov-82
Virginia Tax Review - Spring 1981
Wake Forest Law Review - Volume 28, 1993
Wall Street & Technology - January 1988
Ward's Auto World - January 1983
Washington Monthly - July 1985
Washington Post, The - 01/77 to Present
Washington Telecom News - 06/93 to Present
Washington Times, The - July 4, 1989
Washingtonian Magazine - August 1992
Waterworks Business - June 27, 1997
Weatherwise - January 1993
Weight Watchers Magazine - January 1993
Western Journal of Medicine, The - May 1989
What's New in Marketing -
Which Computer? - April 1989 to September 1994
White House Bulletin, The - November 1, 1996
Whole Earth Review - 05/85 to Present
Wilderness - January 1993
Window Sources - Feb-93
Windows Developer's Journal - July 1991

Windows Letter - July 1994
Windows-DOS Developer's Journal - July 1991
Wines & Vines - July 1989
Wisconsin State Journal - December 1991
Women's Sports and Fitness - January 1989
Wood & Wood Products - January 1991
Wood Technology - January 1989
Work Study -
Workbench - January 1993
Worklife - January 1989 to September 1990
Works Management -
World Development -
World Economic Outlook - April 1989
World Economy -
World Grain Situation and Outlook - June 1991 to May 1992
World Health - January 1989
World Health Organization Bulletin - June 1989
World Mining Equipment - January 1994
World Oil - January 1989
World Outlook -
World Paper - January 1994
World Press Review - January 1993
World Tunnelling and Subsurface Excavation - May 1991
World Wastes - 12/91 to Present
World Wood - January 1990 to December 1993
Writer, The - January 1993
WWD (Womens Wear Daily) - January 1983
Yachting - January 1994
Yale Journal on Regulation - 1983
Yankee - January 1993
Zeitschrift fuer Nationaloekonomie -

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Congressional Hearings: Telecommunications Policy (Universal Service, Telephone Industry, National Information Infrastructure) 99th to the 104th Congress	
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<i>Hearing 99-124: Subcommittee on Telecommunications, Consumer Protection, and Finance</i> House: “Competitive Status of the Bell Operating Companies.”	Mar 13, 1986
<i>Hearing 99-Y4.Sml:R26/7: Subcommittee on Export Opportunities and Special Small Business Problems</i> House: “Implementation of the Regulatory Flexibility Act.”	Apr 16, May 22, 1986
<i>Hearing 99-1063: Committee on Commerce, Science, and Transportation</i> Senate: “Federal Telecommunications Policy Act of 1986.”	Sep 10, 16 1986
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<i>Hearing 100-18: Subcommittee on Telecommunications and Finance</i> House: “Subscriber Line Charges.”	Apr 2, 1987
<i>Hearing 100-Y4.G74/7:R88/4: Subcommittee on Government Information, Justice, and Agriculture</i> House: REA’s Rural Telephone Bank: Rural Telephone Overcharged?”	Apr 23, Jul 23, 1987
<i>Hearing 100-Serial No. 63: Subcommittee on Monopolies and Commercial Law</i> House: “Competition in the Telecommunications Industry.”	Apr 29, 1987
<i>Hearing 100-116: Subcommittee on Antitrust, Monopolies, and Business Rights</i> Senate: “Proposed Modifications to the AT&T Decree.”	Apr 30, 1987
<i>Hearing 100-Serial No. 24: Committee on Science, Space and Technology</i> House: “Communications and Computers in the 21st Century.”	Jun 25, 1987
<i>Hearing 100-71: Subcommittee on Telecommunications and Finance</i> House: “Modified Final Judgment.”	Jul 15, 30, Oct 2, 1987
<i>Hearing 100-173: Subcommittee on Telecommunications and Finance</i> House: “FCC Telephone Price Cap Proposal.”	Nov 10, 1987; Jul 13, 27, 1988
<i>Hearing 100-510 Pt. 1: Subcommittee on Communications</i> Senate: “Modified Final Judgment.”	Dec 10, 11, 1987
<i>Hearing 100-204: Subcommittee on Telecommunications and Finance</i> House: “Telecommunications for the Hearing Impaired and the Needy.”	Feb 24, Jun 16, 1988
<i>Hearing 100-136: Subcommittee on Telecommunications and Finance</i> House: “Modified Final Judgment (Part 2).”	Apr 2, 0 1988
<i>Hearing 100-205: Subcommittee on Telecommunications and Finance</i> House: “Labor Issues in the Telecommunications Industry.”	May 17, Jun 16, 1988
<i>Hearing 100-510 Pt. 2: Subcommittee on Communications</i> Senate: “Modified Final Judgment (Part 2).”	Jul 14, 1988
<i>Hearing 100-924: Subcommittee on Communications</i> Senate: “FCC Price Cap Proceeding.”	Aug 2, 1988
<i>Hearing 100-953: Committee on Commerce, Science, and Transportation</i> Senate: “Amend the Communications Act of 1934.”	Sep 15, 1988
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<i>Hearing 101-23: Subcommittee on Communications</i> Senate: “FCC Price Cap Proceeding.”	Mar 1, 1989

<i>Hearing 101-137: Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101-Serial No. 30: Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101-103: Subcommittee on Rural Development and Rural Electrification</i>	
Senate: “Rural Development Issues.”	Apr 5, May 11, 16, 1989
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<i>Hearing 101-638: Subcommittee on Science, Technology, and Space</i>	
Senate: “National High-Performance Computer Technology Act 1989.”	Jun 21, Jul 26, Sep 15, 1989
<i>Hearing 101-Serial No. 148: Subcommittee on Economic and Commercial Law</i>	
House: “AT&T Consent Degree.”	Aug 1, 2 1989
<i>Hearing Serial No. 101-142: Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101-Y4.G74/7:In3/23: Subcommittee on Government Information, Justice, and Agriculture</i>	
House: “Bringing the Information Age to Rural America.”	Jun 14, Oct 12 1989; Feb 7, 1990
<i>Hearing 101-96 Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101 Serial No. 64: Subcommittee on Science Research and Technology</i>	
House: “High Performance Computing.”	Oct 3, 1989
<i>Hearing 101-88: Subcommittee on Telecommunications and Finance</i>	
House: “Networks of the Future.”	Oct 4, 1989
<i>Hearing 101-133: Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101-763: Subcommittee on Communications</i>	
Senate: “Telephone Operator Consumer Services Improvement Act of 1989.”	Feb 7, 1990
<i>Hearing 101-137: Subcommittee on Telecommunications and Finance</i>	
House: “Telecommunications Policy Act (Part 1).”	Mar 7, Apr 18, 1990
<i>Hearing 101-Serial No. 115: Subcommittee on Science, Research and Technology</i>	
House: “H.R. 3131, the High Performance Computing Technology Act.”	Mar 14, 15 1990
<i>Hearing 101-804: Subcommittee on Communications</i>	
Senate: “Telecommunications Equipment Manufacturing/Competition Act.”	Apr 25, May 9, 1990
<i>Hearing 101-142: Subcommittee on Telecommunications and Finance</i>	
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<i>Hearing 101-355: Committee on Commerce, Science, and Transportation</i>	
Senate: “Telecommunications Equipment Research/Manufacturing Act of 1990.”	Jun 29, 1990.
<i>Hearing 101-886: Subcommittee on Communications</i>	
Senate: “Communications Competitiveness-Infrastructure Act of 1990.”	Jul 24, 1990
<i>Hearing 101-976: Subcommittee on Communications</i>	
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<i>Hearing 102-2: Subcommittee on Telecommunications and Finance</i>	
House: “Emerging Telecommunications Technologies.”	Feb 21, Mar 12, 1991
<i>Hearing 102-134: Subcommittee on Communications</i>	

Senate: “Telecommunications Equipment Manufacturing Competition Act 1991.”	Feb 28, 1991
<i>Hearing 102-23: Subcommittee on Science, Technology and Space</i>	
Senate: “High Performance Computing and Communications Act.”	Mar 5, 1991
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Senate: “Developing the Nation’s Telecommunications Infrastructure.”	May 22, Jun 12, 1992
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House: “National Communications Infrastructure.”	Jan 19, Feb 23, Mar 24, 31, 1993
<i>Hearing 103-Serial No. 27: Subcommittee on Science</i>	

House: "High Performance Computing and Network Program." <i>Hearing 103-14: Subcommittee on Telecommunications and Finance</i>	Feb 2, 1993
House: "Emerging Telecommunications Technologies." <i>Hearing 103-Serial No. 14: Subcommittee on Technology, Environment, and Aviation</i>	Feb 4, Apr 22, 1993
House: "Technology Policy: Information Infrastructure (Information Superhighways and High Performance Computing), Vol. III." <i>Hearing 103-Serial No. 37: Subcommittee on Science</i>	Mar 23, 25, 1993
House: "H.R. 1757: High Performance Comp/Networking Act of 1993." <i>Hearing 103-787: Subcommittee on Communications</i>	Apr 27, May 6, 11, 1993
Senate: "S.1086, the Telecommunications Infrastructure Act of 1993." <i>Hearing 103-850: Subcommittee on Antitrust, Monopolies, and Business Rights</i>	Jul 14, Sep 8, 1993
Senate: "Examining Megamergers in Telecommunications Industry." <i>Hearing 103-40 Pt. 1: Subcommittee on Economic and Commercial Law</i>	Oct 27, Nov 16, Dec 16, 1993
House: "Antitrust and Communications Reform Act of 1993 (Part 1)." <i>Hearing 103-99: Subcommittee on Telecommunications and Finance</i>	Jan 26, 1994
House: "National Communications Infrastructure (Part 2)." <i>Hearing 103-40 Pt. 2: Subcommittee on Economic and Commercial Law</i>	Jan 27, Feb 1-3, 1994
House: "Antitrust and Communications Reform Act of 1993 (Part 2)." <i>Hearing 103-104: Subcommittee on Telecommunications and Finance</i>	Feb 2, 1994
House: "National Communications Infrastructure (Part 3)." <i>Hearing 103-40 Pt. 3: Subcommittee on Economic and Commercial Law</i>	Feb 8-10, 1994
House: "Antitrust and Communications Reform Act of 1993 (Part 3)." <i>Hearing 103-599: Committee on Commerce, Science, and Transportation.</i>	Feb 10, 1994
Senate: "S.1822, Communications Act of 1994." <i>Hearing 103-569: Subcommittee on Education, Arts, and Humanities</i>	Feb 23, Mar 2, 17, May 4, 11, 12, 18, 24, 25, 1994
Senate: "Libraries and Their Role in the Information Infrastructure." <i>Hearing 103-Serial No. 132: Subcommittee on Investigations and Oversight</i>	Apr 19, 1994
House: "Telemedicine: An Information Highway to Save Lives." <i>Hearing 103-Serial No. 148: Subcommittee on Science</i>	May 2, 1994
House: "High Performance Computing and Communications." <i>Hearing 103-Serial No. 134: Subcommittee on Technology, Environment, and Aviation</i>	May 10, 1994
House: "Electronic Commerce/Interoperability: National Information Infrastructure." <i>Hearing 103-783: Subcommittee on Communications</i>	May 26, 1994
Senate: "S. 2195. The National Telecommunications Infrastructure Act of 1994." <i>Hearing 103-559 Pt. 1-2: Committee on Energy and Commerce</i>	Jun 22, 1994
House: "Antitrust and Communications Reform Act of 1994." <i>Hearing 103-560: Committee on Energy and Commerce</i>	Jun 24, 1994
House: "National Communications Competition/Info Infrastructure Act/1994." <i>Hearing 103-Serial No. 139: Subcommittee on Technology, Environment, and Aviation</i>	Jun 24, 1994
House: "Technological Transformation of Rural America." <i>Hearing 103-Serial No. 159: Subcommittee on Technology, Environment, and Aviation</i>	Jul 12, 1994
House: "Technology Deployment-Interoperability in the National Information Infrastructure." <i>Hearing 103-367: Committee on Commerce, Science, and Transportation</i>	Jul 26, 1994
Senate: "Communications Act of 1994." <i>Hearing 103-1035: Subcommittee on Antitrust, Monopolies, and Business Rights</i>	Sep 14, 1994
Senate: "Communications Act of 1994." <i>Hearing 103-170: Subcommittee on Telecommunications and Finance</i>	Sep 20, 1994
House: "Access to Telecommunications Technology." <i>Hearing 103-Serial No. 167: Subcommittee on Science</i>	Sep 30, 1994
House: "Internet Access."	Oct 4, 1994

<i>Hearing 104-302: Committee on Commerce, Science, and Transportation</i> Senate: "Telecommunications Oversight."	Jan 9, 1995
<i>Hearing 104-218: Committee on Commerce, Science, and Transportation</i> Senate: "Hearing on Telecommunications Policy Reform."	Mar 2, 1995
<i>Hearing 104-216: Committee on Commerce, Science, and Transportation</i> Senate: "Hearing on Telecommunications Policy Reform."	Mar 21, 1995
<i>Hearing 104-23: Committee on Commerce, Science, and Transportation</i> Senate: "Telecommunications Competition and Deregulation Act of 1995."	Mar 30, 1995
<i>Hearing 104-725: Subcommittee on Antitrust, Monopolies, and Business Rights</i> Senate: "Antitrust Issues in Telecommunications Legislation."	May 3, 1995
<i>Hearing 104-191: Subcommittee on Science, Technology, and Space</i> Senate: "Oversight Hearing-High Performance Computing/Uses of the Information Highway."	May 4, 1995
<i>Hearing 104-Serial No. 7: Committee on the Judiciary.</i> House: "Telecommunications: The Role of the Department of Justice."	May 9, 1995
<i>Hearing 104-34: Subcommittee on Telecommunications and Finance</i> House: "Communications Reform Law."	May 10-12, 1995
<i>Hearing 104-203 Pt. 1: Committee on the Judiciary</i> House: "Antitrust Consent Decree Reform Act of 1995."	Jul 24, 1995
<i>Hearing 104-204 Pt. 1: Committee on Commerce</i> House: "Communications Act of 1995."	Jul 24, 1995
<i>Hearing 104-Serial No. 32: Subcommittee on Basic Research</i> House: "High Performance Computing and Communications Program."	Oct 31, 1995

Proposed Federal Telecommunications Legislation 1986-1995 (Universal Service, Telephone Industry, National Information Infrastructure) Congress: 99th - 2nd Session to the 104th - 1st Session	
99th Congress - 2nd session	1986
<p><i>Sponsor:</i> Representative Markey (D-MA) H.R. 4172 - To amend the Communications Act of 1934 to require FCC approval of carrier tariffs. <i>Sponsor:</i> Representative Swift (D-WA) H. Con. Res. 308 - To express the sense of Congress regarding rural universal telephone service. <i>Sponsor:</i> Senator Gore (D-TN) S. 2362 - To allow Bell operating companies to provide information services and equipment. <i>Sponsor:</i> Senator Dole (R-KS) S. 2565 - To ensure the orderly and competitive development of the telecommunications industry. <i>Sponsor:</i> Senator Gore (D-TN) S. 2594 - To direct the Office of Science and Technology to report to Congress on fiber optic networks. <i>Sponsor:</i> Representative Swindall (R-GA) H.R. 5515 - To establish an Information Age Commission to study the impact of technology on the U.S.</p>	
100th Congress	1987/88
<p><i>Sponsor:</i> Senator Gore (D-TN) S. 209 - To allow the Bell Operating Companies to provide information services/equipment. <i>Sponsor:</i> Representative Leland (D-TX) H.R. 291 - To amend the Communications Act of 1934 to provide lifeline telephone service. <i>Sponsor:</i> Senator Pressler (R-SD) S. 314 - To require certain telephones to be hearing aid compatible. <i>Sponsor:</i> Representative Tauke (R-IA) H.R. 2030 - To allow the Bell Operating Companies to provide information services/equipment. <i>Sponsor:</i> Senator Gore (D-TN) S. 1074 - To prohibit access charges of the current rate of subscriber line charges. <i>Sponsor:</i> Representative Mavroules (D-MA) H.R. 2213 - To require certain telephones to be hearing-aid-compatible. <i>Sponsor:</i> Representative Bryant (D-TX) H.R. 3910 - To require FCC review of proposed changes in regulation of interstate rates. <i>Sponsor:</i> Senator Kerry (D-MA) S. 2044 - To require FCC review of proposed changes in regulation of interstate rates. <i>Sponsor:</i> Senator Inouye (D-HI) S. 2114 - To amend 1934 Communications Act to authorize public telecommunications facilities. <i>Sponsor:</i> Representative Nielson (R-UT) H.R. 4135 - To amend 1934 Communications Act to permit common carriers to deliver cable TV. <i>Sponsor:</i> Senator McCain (R-AZ) S. 2221 - To expand the national telecommunications system for the benefit of the hearing-impaired. <i>Sponsor:</i> Representative Gunderson (R-WI) H.R. 4992 - To direct the FCC to develop a telecommunications system for the hearing-impaired. <i>Sponsor:</i> Representative Cooper (D-TN) H.R. 5019 - To require FCC to protect small telephone company subscribers regarding interstate rates. <i>Sponsor:</i> Representative Dingell (D-MI) H. Con. Res. 339 - To call for full participation of American industry in provision of telecommunications equipment and services. <i>Sponsor:</i> Senator Breaux (D-LA) S. Con. Res. 161 - To call for full participation of American industry in provision of telecommunications equipment and services.</p>	

Sponsor: **Senator Gore (D-TN)**

S. 2918 - To provide a national plan to assure continued leadership in high-performance computing.

101st Congress

1989/90

Sponsor: **Representative Cooper (D-TN)**

H.R. 971 - To require the FCC to protect consumers from unfair provision of operator services.

Sponsor: **Representative Cooper (D-TN)**

H.R. 1238 - To require the FCC to protect small telephone company subscribers regarding interstate rates.

Sponsor: **Representative Markey (D-MA)**

H.R. 1572 - To require FCC to determine the effect of implementing price-cap regulation.

Sponsor: **Senator Baucus (D-MT)**

S. 759 - To amend the Rural Electrification Act of 1936 to ensure all rural residents and entities have affordable access to telecommunications services.

Sponsor: **Representative Richardson (D-NM)**

H.R. 2056 - To require the FCC to require geographic toll-rate averaging in interstate long-distance.

Sponsor: **Representative Swift (D-WA)**

H.R. 2140 - To allow telephone operating companies to provide information services and equipment.

Sponsor: **Senator Kerrey (D-NE)**

S. 1030 - To improve telecommunications links and information available for rural businesses.

Sponsor: **Senator Leahy (D-VT)**

S. 1036 - To amend federal laws regarding rural development and telecommunications services.

Sponsor: **Senator Gore (D-TN)**

S. 1067 - To provide for a federal program to ensure U.S. leadership in high-performance computing.

Sponsor: **Senator McCain (R-AZ)**

S. 1452 - To amend the Communications Act to provide universally available communications services.

Sponsor: **Representative Walgren (D-PA)**

H.R. 3131 - To provide for a federal program to ensure U.S. leadership in high-performance computing.

Sponsor: **Representative Gunderson (R-WI)**

H.R. 3171 - To improve common carriers access for hearing/speech impaired individuals.

Sponsor: **Senator Dixon (D-IL)**

S. 1643 - To provide protection to consumers with certain telephone services.

Sponsor: **Senator Breaux (D-LA)**

S. 1660 - To amend legislation relating to telephone operator consumer services.

Sponsor: **Senator Adams (D-WA)**

S. 1907 - To clarify the authority of the FCC regarding non-wire line cellular license assignments.

Sponsor: **Senator Hollings (D-SC)**

S. 1981 - To permit Bell Telephone Companies to manufacture telecommunications equipment.

Sponsor: **Representative Wise (D-WV)**

H.R. 4068 - To make affordable, advanced telecommunications available to rural residents by 2000.

Sponsor: **Senator Leahy (D-VT)**

S. 2830 - To amend federal laws regarding rural development and telecommunications services.

Sponsor: **Representative Bryant (D-TX)**

H.R. 5471 - To require the FCC to prevent price-cap regulation from leading to degradation in the quality of the telephone network.

102nd Congress

1991/92

Sponsor: **Representative Bryant (D-TX)**

H.R. 267 - To require the FCC to prevent price-cap regulation from leading to degradation in the quality of the telephone network.

Sponsor: **Representative Bryant (D-TX)**

H.R. 452 - To require telecommunications equipment sold in the U.S. to be manufactured in the U.S.
Sponsor: **Senator Hollings (D-SC)**

S. 173 - To permit Bell Telephone Companies to manufacture telecommunications equipment.
Sponsor: **Senator Gore (D-TN)**

S. 272 - To provide for a federal program to ensure U.S. leadership in high-performance computing.
Sponsor: **Senator Johnston (D-LA)**

S. 343 - To provide for continued U.S. leadership in high-performance computing.
Sponsor: **Representative Stark (D-CA)**

H.R. 975 - To require the FCC to prevent fraud changes in long-distance customer selections.
Sponsor: **Representative Oxley (R-OH)**

H.R. 1523 - To permit Bell Telephone Companies to manufacture telecommunications equipment.
Sponsor: **Representative Slattery (D-KS)**

H.R. 1527 - To permit Bell Telephone Companies to manufacture telecommunications equipment.
Sponsor: **Senator Metzenbaum (D-OH)**

S. 857 - To require long-distance providers to offer all customers lowest-increment time-billing for long-distance service.
Sponsor: **Representative Markey (D-MA)**

H.R. 2330 - To protect the public interest and regulate common carriers relative to the audiotext industry.
Sponsor: **Senator Inouye (D-HI)**

S. 1166 - To provide for regulation and oversight of telephone technology known as pay-per-call.
Sponsor: **Senator Burns (R-MT)**

S. 1200 - To advance the national interest by developing the communications infrastructure.
Sponsor: **Representative Boucher (D-VA)**

H.R. 2546 - To advance the national interest by developing the communications infrastructure.
Sponsor: **Senator Inouye (D-HI)**

S. 1579 - To provide for regulation and oversight of telephone technology known as pay-per-call.
Sponsor: **Representative Richardson (D-NM)**

H.R. 3276 - To require long-distance providers to offer all customers lowest-increment time-billing for long-distance service.
Sponsor: **Representative Swift (D-WA)**

H.R. 3490 - To provide for regulation and oversight of telephone technology known as pay-per-call.
Sponsor: **Representative Cooper (D-TN)**

H.R. 3515 - To amend Communications Act of 1934 to allow competition and preserve universal service.
Sponsor: **Representative Ritter (R-PA)**

H.R. 3701 - To aid the establishment of an Advanced Telecommunications Infrastructure Fund.
Sponsor: **Senator Inouye (D-HI)**

S. 2112 - To amend Communications Act of 1934 to allow competition and preserve universal service.
Sponsor: **Representative Markey (D-MA)**

H.R. 4789 - To require the FCC to enforce telecommunications network reliability standards.
Sponsor: **Representative Brooks (D-TX)**

H.R. 5096 - To supersede the Modification of Final Judgement in support of Bell Operating Companies.
Sponsor: **Representative English (D-OK)**

H.R. 5237 - To amend the Rural Electrification Act of 1936 to improve rural telephone service.
Sponsor: **Representative English (D-OK)**

H.R. 52378 - To establish a grant program to enable rural areas to obtain access to modern interactive telecommunications services.
Sponsor: **Senator Gore (D-TN)**

S. 2810 - To ensure broad availability of advanced public-switched-network infrastructure.
Sponsor: **Senator Gore (D-TN)**

S. 2937 - To develop applications for high-performance computing and high-speed networking.
Sponsor: **Representative Tauzin (R-LA)**

H.R. 5559 - To amend the Communications Act of 1934 to regulate information services provided by

common carriers.

Sponsor: **Representative G. Brown (D-CA)**

H.R. 5759 - To develop applications for high-performance computing and high-speed networking.

Sponsor: **Representative Ackermen (D-NY)**

H.R. 6057 - To prohibit the FCC from waiving penalties for violations of the alternative-operator services requirements.

Sponsor: **Representative English (D-OK)**

H.R. 5954 - To encourage provision of rural health or educational services through telecommunications.

Sponsor: **Representative Swift (D-WA)**

H.R. 6191 - To provide for regulation and oversight of telephone technology known as pay-per-call.

103rd Congress

1993/94

Sponsor: **Senator Hollings (D-SC)**

S. 4 - To promote industrial competitiveness; includes funds to foster connecting networks among schools, libraries, and universities.

Sponsor: **Senator Inouye (D-HI)**

S. 335 - To promote the development and use of new telecommunications technologies.

Sponsor: **Representative Valentine (D-NC)**

H.R. 820 - To direct NSF to develop advanced networking technology for education and libraries.

Sponsor: **Representative Boucher (D-VA)**

H.R. 1312 - To ensure the availability of advanced-switched-network infrastructure in the public interest.

Sponsor: **Senator Grassley (R-IA)**

S. 570 - To ensure the broad availability of advanced-public-switched-network infrastructure.

Sponsor: **Representative Boucher (D-VA)**

H.R. 1504 - To encourage modernization and promote competition in the telecommunications industry.

Sponsor: **Representative Collins (D-IL)**

H.R. 1613 - To establish an Office of Telecommunications Policy within the executive branch.

Sponsor: **Representative Boucher (D-VA)**

H.R. 1757 - To accelerate development of high-performance computing and high-speed networking.

Sponsor: **Senator Danforth (R-MO)**

S. 1086 - To foster development of the nation's telecommunications infrastructure through competition.

Sponsor: **Senator Leahy (D-VT)**

S. 1167 - To restructure Rural Electrification Act of 1936; includes electric and telephone loan programs.

Sponsor: **Representative Markey (D-MA)**

H.R. 2639 - To promote and develop the U.S. national telecommunications and information infrastructure.

Sponsor: **Representative de la Garza (D-TX)**

H.R. 3123 - To increase interest rates electric and telephone borrowers pay under REA loan programs.

Sponsor: **Representative Slattery (D-KS)**

H.R. 3609 - To improve competitiveness of American industry regarding telecommunications equipment.

Sponsor: **Representative Markey (D-MA)**

H.R. 3636 - To promote a national communications infrastructure and encourage advanced services.

Sponsor: **Representative Brooks (D-TX)**

H.R. 3626 - To amend the Communications Act of 1934 and 1982 Modification of Final Judgement.

Sponsor: **Senator Hollings (D-SC)**

S. 1822 - To foster the nation's telecommunications infrastructure and protect the public interest.

Sponsor: **Senator Inouye (D-HI)**

S. 1883 - To promote a national communications infrastructure and construct public broadcast facilities.

Sponsor: **Senator Leahy (D-VT)**

S. 2086 - To amend the Rural Electrification Act of 1936 to remove the 7% interest rate on certain loans.

Sponsor: **Senator Breaux (D-LA)**

S. 2111 - To foster further development of the telecommunications infrastructure in the public interest.

Sponsor: **Senator Inouye (D-HI)**

S. 2195 - To direct the FCC to reserve capacity on telecommunications networks for public use.

Sponsor: **Representative Schumer (D-NY)**

H.R. 4969 - To amend the Communications Act of 1934 to limit charges imposed on interstate services.

Sponsor: **Representative Lehman (D-FL)**

H.R. 5013 - To provide incentives for improving telecommunications use in education.

Sponsor: **Representative Gejdenson (D-CT)**

H.R. 5112 - To amend the Communications Act of 1934 to require resellers of long-distance services to disclose their relationship to the carriers from which the services are acquired.

104th Congress-1st session

1995

Sponsor: **Representative Dingell (D-MI)**

H.R. 411 - To amend the Communications Act of 1934 to regulate Bell operating companies.

Sponsor: **Representative Gillmor (R-OH)**

H.R. 912 - To permit registered utility companies to provide telecommunications services.

Sponsor: **Representative Bliley (R-VA)**

H.R. 1275 - To ensure availability of electronics devices affording access to telecommunications services.

Sponsor: **Senator Pressler (R-NE)**

S. 652 - To provide policy that accelerates advanced telecommunications services for all Americans.

Sponsor: **Senator Cohen (R-ME)**

S. 664 - To ensure availability of electronics devices affording access to telecommunications services.

Sponsor: **Senator Kerrey (D-NE)**

S. 710 - To promote interoperability and consumer choice in the evolving information infrastructure.

Sponsor: **Representative Hyde (R-IL)**

H.R. 1528 - To supersede the Modification of Final Judgement entered August 24, 1982.

Sponsor: **Representative Conyers (D-MI)**

H.R. 1528 - To supersede the Modification of Final Judgement entered August 24, 1982.

Sponsor: **Representative Bliley (R-VA)**

H.R. 1555 - To promote competition, reduce regulation, and encourage telecommunications technologies.

Sponsor: **Representative Hoekstra (R-MI)**

H.R. 1892 - To amend the Communications Act of 1934 to clarify requirements applicable to hearing-aid-compatible telephones in the workplace.

Sponsor: **Representative Richardson (NM)**

H.R. 556 - To express the intentions of the House of Representatives concerning universal service provisions of the Telecommunications Act of 1996 as they relate to Native Americans.

*The NTIA Infrastructure Report: Telecommunications in the Age of Information
(Oct. 1991)—List of Commenters, Filings, Symposium, and Field Hearings*

INITIAL COMMENTS:

Access Plus Communications, Incorporated
 Ad Hoc Telecommunications Users Committee
 Alascom, Incorporated
 Alliance for Public Technology
 American Legislative Exchange Council
 American Library Association
 American Mobile Satellite Corporation
 American Newspaper Publishers Association
 American Petroleum Institute
 American Radio Relay League
 Ameritech
 Arthur Anderson & Co.
 Associated Public-Safety Communications Officers, Inc.
 Association of American Railroads
 Association of Data Processing Services Organizations, Inc.
 Association of Independent TV Associations, Inc.
 Association for Local Telecommunications Services
 AT&T
 Bell Atlantic
 Bellcore, Southern New England Telephone Company, Cincinnati Bell Telephone
 BellSouth Corporation
 BT Tymnet, Incorporated
 California Public Utilities Commission
 Centel Corporation
 Cincinnati Bell Telephone Company
 Citizens for a Sound Economy Foundation
 Citizens Utilities Company
 Committee of Corporate Telecommunications Users
 Competitive Telecommunications Association
 CompuServe Incorporated
 Computer & Manufacturers Association
 Consumer Interest Research Institute
 Contel Corporation
 Continental Cablevision
 Corporation for Public Broadcasting
 County of Los Angeles, Internal Services Department
 Covington Jere, *et. al.*
 Cox Enterprises, Incorporated
 Cybertel Corporation
 Digital Equipment Corporation

Direct Dialog Advisory Council MN
Direct Dialogue Council, Des Moines IA
Direct Dialogue Council, Marshall MN
Direct Council #5, Urbandale IA
District of Columbia Public Service Committee
Dordick, Herbert
Eastman Kodak Company
Egan, Bruce
Ericsson Corporation
Exchange Carriers Standards Association
Fisher, Francis Dummer
Florida Public Service Commission
France Telecom Inc.
Galvin, Thomas J.
General Communication Incorporation
General Electric Communications & Services
Global Telematics
GPT, Ltd.
Graniere, Robert
GTE Service Corporation
Hudson, Heather
Idaho Public Utilities Commission
Independent Data Communications Manufacturers Association, Incorporated
Independent Telecommunications Network, Incorporated
Jersey City State College
Johns Hopkins Health Center
Kirkwood Community College
KPMG/Peat Marwick
Litel Telecommunications Corporation
Lower Mississippi Delta Development Commission
McCaw Cellular Communications Corporation
MCI Telecommunications Corporation
Medicine for the 21st Century
MessagePhone, Incorporated
Metropolitan Fiber Systems, Incorporated
Midlands Consortium
Milano, Joseph
Minnesota Direct Dialogue Council Five
Minnesota Extension Service II
Minnesota Extension Service I
MIT Media Laboratory
National Aeronautics Administration
National Association of Broadcasters
National Association of College Broadcasters

National Association of Public Television Stations & Public Broadcasting Service
National Association of Towns and Townships
National Telephone Cooperative Association/Organization for the Protection and Advancement
of Small of Small Telephone Companies
New York City, Energy and Telecommunications Office
North America Telecommunications Association
North Dakota Direct Dialogue Eastern Council
Northern Telecom
NYNEX Corporation
OPT in America
Oregon Department of General Services
Organization of State Broadcasting Executives
Pacific Telesis Group
Phone Spots, Incorporated
Prodigy Services Company
Radio Reading Service of Western New England, Incorporated
Rifkin, Maurice
Rochester Telephone Corporation
Rural Electrification Administration
Saint Joseph's University
Schmidt, Leland
Siemens Corporation
South Carolina Division of Information Resource Management
Southern New England Telephone Company
Southwestern Bell Corporation
State of Hawaii
State of Minnesota
Swedish Telecom Group
Technology Futures, Incorporated
Telecommunications Incorporated
Telecommunications Industry Association
Telephones and Data Systems, Incorporated
Telocator
Town of Bloomsburg, PA
United Church of Christ, Office of Communications
United States Telephone Association
United Telecommunications Incorporated
University of Tennessee
University of Pittsburgh, Department of Information Sciences
University of Pittsburgh Medical Center
U.S. Department of Education
U.S. Small Business Administration
U.S. Small Business Administration, Des Moines, IA
U.S. West

Utilities Telecommunications Council
Verilink Corporation
Videotex Industry Association
Washington Utilities and Transportation Commission
West Chester University, Office of Information Services
Yznaga, Mary

Table 1—Universal Service Issue Definitions

Year	I-Econ	Regulat (D)	Equity (D)	Tech (D)	Benefit(D)	Harm(D)	Cons	Summ
1986	20 / 0	3 / 17	15 / 5	20 / 0	19 / 1	18 / 2	12 / 8	18 / 2
1987	13 / 3	7 / 9	7 / 9	15 / 1	13 / 3	14 / 2	13 / 3	13 / 3
1988	6 / 2	0 / 8	4 / 4	6 / 2	8 / 0	7 / 1	5 / 3	7 / 1
1989	6 / 3	6 / 3	6 / 3	6 / 3	6 / 3	5 / 4	7 / 2	8 / 1
1990	5 / 0	1 / 4	5 / 0	5 / 0	3 / 2	5 / 0	4 / 1	5 / 0
1991	9 / 4	3 / 10	11 / 2	10 / 3	10 / 3	12 / 1	11 / 2	13 / 0
1992	7 / 2	3 / 6	8 / 1	6 / 3	5 / 4	6 / 3	8 / 1	7 / 2
1993	38 / 12	13 / 37	31 / 19	42 / 8	40 / 10	42 / 8	41 / 9	48 / 2
1994	70 / 85	35 / 120	101 / 54	127 / 28	88 / 67	118 / 37	112 / 43	136 / 19
1995	52 / 41	21 / 72	69 / 24	85 / 8	66 / 27	62 / 31	66 / 27	82 / 11

of No / # of Yes reported

Table 2—Universal Service Policy Images

Year	Regulat (I)	Equity (I)	Tech (I)	Benefit (I)	Harm (I)
1986	2 / 18	15 / 5	20 / 0	19 / 1	20 / 0
1987	7 / 9	6 / 10	13 / 3	15 / 1	15 / 1
1988	0 / 8	6 / 2	6 / 2	8 / 0	8 / 0
1989	4 / 5	5 / 4	4 / 5	7 / 2	8 / 1
1990	1 / 4	5 / 0	4 / 1	3 / 2	5 / 0
1991	3 / 10	11 / 2	10 / 3	12 / 1	13 / 0
1992	3 / 6	7 / 2	6 / 3	9 / 0	9 / 0
1993	12 / 38	38 / 12	38 / 12	41 / 9	45 / 5
1994	23 / 132	114 / 41	80 / 75	106 / 49	144 / 11
1995	14 / 79	81 / 12	74 / 19	76 / 17	74 / 19

of No / # of Yes reported

Table 3—Universal Service Policy Solutions/Alternatives

Year	Time	Fund	States	Change
1986	19 / 1	16 / 4	17 / 3	4 / 16
1987	15 / 1	14 / 2	11 / 5	7 / 9
1988	8 / 0	7 / 1	7 / 1	2 / 6
1989	9 / 0	6 / 3	9 / 0	1 / 8
1990	5 / 0	5 / 0	5 / 0	0 / 5
1991	13 / 0	11 / 2	9 / 4	1 / 12
1992	9 / 0	9 / 0	9 / 0	1 / 8
1993	49 / 1	23 / 27	47 / 3	7 / 43
1994	142 / 13	96 / 59	114 / 41	17 / 38
1995	78 / 15	54 / 39	77 / 16	25 / 68

of No / # of Yes reported

Telecommunications Policy: Selected Articles 1986–1995

1986

Compaine, Benjamin M. “Information Gaps: Myth or Reality.” *Telecommunications Policy*. Mar ’86: 5-12.

Wenders, John T. and Bruce L. Egan. “The Implications of Economic Efficiency for U.S. Telecommunications Policy.” *Telecommunications Policy*. Mar ’86: 33-40.

Johnson, Elizabeth. “Telecommunications Market Structure in the USA: the Effects of Deregulation and Divestiture.” *Telecommunications Policy*. Mar ’86: 57-67.

Egan, Bruce L. and Dennis L. Weisman. “The U.S. Telecommunications Industry in Transition: Bypass, Regulation, and the Public Interest.” *Telecommunications Policy*. Jun ’86: 164-176.

Denious, Robert D. “The Subsidy Myth: Who Pays for the Local Loop?” *Telecommunications Policy*. Sep ’86: 259-276.

Cullen, Andrew. “Electronic Information Services: an Emerging Market Opportunity?” *Telecommunications Policy*. Dec ’86: 299-312.

1987

de Fontenay, Alain, Mark B. Hoffberg, Mary H. Shugard and Robert G. White. “Local Competition and Resale of Network Services in the USA.” *Telecommunications Policy*. Mar ’87: 45-57.

Vitalari, Nicholas P. and Alladi Venkatesh. “In-Home Computing and Information Services: A Twenty-Year Analysis of the Technology and Its Impacts.” *Telecommunications Policy*. Mar ’87: 65-81.

Sikes, Alfred C. “Information Resources: A Nation’s Stake in Telecommunications.” *Telecommunications Policy*. Dec ’87: 330-333.

1988

Irwin, Manley R. “U.S. Telecommunications: Searching for Optimum Policy.” *Telecommunications Policy*. Mar ’88: 13-15.

Snow, Marcellus S. “Telecommunications Literature: A Critical Review of the Economic, Technological, and Public Policy Issues.” *Telecommunications Policy*. Jun ’88: 153-183.

Singh, Indu B. “Information Economy and the Next Presidency.” *Telecommunications Policy*. Sep ’88: 208-211.

Mansell, Robin E. "Telecommunication Network-Based Services: Regulation and Market Structure in Transition." *Telecommunications Policy*. Sep '88: 243-255.

Allen, David. "New Telecommunications Services: Network Externalities and Critical Mass." *Telecommunications Policy*. Sep '88: 257-271.

Tamarin, Christopher. "Telecommunications Technology Applications and Standards: A New Role for the User." *Telecommunications Policy*. Dec '88: 323-331.

Egan, Bruce L. "U.S. Telecommunications Deregulation: Implications for Industry Structure and Social Welfare." *Telecommunications Policy*. Dec '88: 332-343.

1989

Hills, Jill. "Universal Service: Liberalization and Privatization of Telecommunications." *Telecommunications Policy*. Jun '89: 129-144.

Strover, Sharon. "Telecommunications and Economic Development." *Telecommunications Policy*. Sep '89: 194-196.

Braman, Sandra. "Defining Information: An Approach for Policymakers." *Telecommunications Policy*. Sep '89: 233-242.

Brennan, Timothy J. "Divestiture Policy Considerations in an Information Services World." *Telecommunications Policy*. Sep '89: 243-254.

Brotman, Stuart N. "U.S. Communications Policymaking: Returning Power to the Presidency." *Telecommunications Policy*. Dec '89: 302-308.

1990

Bates, Benjamin J. "Information Systems and Society: Potential Impacts of Alternative Structures." *Telecommunications Policy*. Apr '90: 151-158.

Fuhr, Joseph P. Jr. "Telephone Subsidization of Rural Areas in the USA." *Telecommunications Policy*. Jun '90: 183-188.

Hudson, Heather E. and Edwin B. Parker. "Information Gaps in Rural America." *Telecommunications Policy*. Jun '90: 193-205.

Dordick, Herbert S. "The Origins of Universal Service: History as a Determinant of Telecommunications Policy." *Telecommunications Policy*. Jun '90: 223-231.

Egan, Bruce L. "Public Policy for Fibre-to-the-Home." *Telecommunications Policy*. Dec '90: 457-460.

1991

Phillips, Almarin. "Changing Markets and Institutional Inertia." *Telecommunications Policy*. Feb '91: 49-61.

Dordick, Herbert S. and Marilyn Diane Fife. "Universal Service in Post-Divestiture USA." *Telecommunications Policy*. Apr '91: 119-128.

Makarewicz, Thomas J. "The Effectiveness of Low-Income Telephone Assistance Programmes: Southwestern Bell's Experience." *Telecommunications Policy*. Jun '91: 223-240.

Teske, Paul and John Gebosky. "Local Competitors: Strategy and Policy." *Telecommunications Policy*. Oct '91: 429-436.

Weiss, Martin B. H. and C. Michael Lewis. "Telecommunications Pricing and Consumer Expectations: The Case of Alternate Operator Services." *Telecommunications Policy*. Dec '91: 497-508.

Dowling, Michael and Eberhard Witte. "Value-Added Services: Regulation and Reality in the USA." *Telecommunications Policy*. Dec '91: 509-518.

1992

Wenders, John T. "Unnatural Monopoly in Telecommunications." *Telecommunications Policy*. Jan/Feb '92: 13-15.

Sawhney, Harmeet. "Rural Telephone Companies: Diverse Outlooks and Shared Concerns." *Telecommunications Policy*. Jan/Feb '92: 16-26.

Egan, Bruce L. "Bringing Advanced Technology to Rural America: The Cost of Technology Adoption." *Telecommunications Policy*. Jan/Feb '92: 27-45.

Sawhney, Harmeet. "Demand Aggregation Strategies for Rural Telephony." *Telecommunications Policy*. Mar '92: 167-178.

Calbrese, Andrew and Donald Jung. "Broadband Telecommunications in Rural America: Emerging Infrastructures for Residential Service." *Telecommunications Policy*. Apr '92: 225-236.

Dutton, William H. "The Social Impact of Emerging Telephone Services." *Telecommunications Policy*. Jul '92: 377-387.

Brennan, Timothy J. "Integrating Communication Theory into Media Policy." *Telecommunications Policy*. Aug '92: 460-474.

Sawhney, Harmeet. "The Public Telephone: Stages in Infrastructure Development." *Telecommunications Policy*. Sep/Oct '92: 538-552.

Ogan, Christine. "Communications Policy Options in an Era of Rapid Technological Change." *Telecommunications Policy*. Sep/Oct '92: 565-575.

1993

O'Lessker, Karl, Michel Dupagne and Michael McGregor. "Fibre-to-the-Home Deployment: Regulatory Issues in Five U.S. Midwestern States." *Telecommunications Policy*. Jan/Feb '93: 61-73.

Armstrong, Thomas Orwell and Joseph P. Fuhr, Jr. "Cost Considerations for Rural Telephone Service." *Telecommunications Policy*. Jan/Feb '93: 80-83.

Haring, John R. and Dennis L. Weisman. "Dominance, Non-Dominance and the Public Interest in Telecommunications Regulation." *Telecommunications Policy*. Mar '93: 98-106.

Garfinkel, Lawrence. "The Growth of Competition in the U.S. Long-Distance Industry." *Telecommunications Policy*. Jul '93: 323-330.

Mueller, Milton. "Universal Service in Telephone History: A Reconstruction." *Telecommunications Policy*. Jul '93: 352-369.

Sawhney, Harmeet. "Circumventing the Centre: The Realities of Creating a Telecommunications Infrastructure in the USA." *Telecommunications Policy*. Sep/Oct '93: 504-516.

Shields, Peter, Brenda Dervin, Christopher Richter and Richard Soller. "Who Needs 'POTS-plus': A Comparison of Residential User Needs Along the Rural-Urban Continuum." *Telecommunications Policy*. Nov '93: 563-587.

1994

Blackmun, Colin. "To Have and Have Not." *Telecommunications Policy*. Jan/Feb '94: 3-4.

Downs, Stephen J. "Asynchronous Transfer Mode and Public Broadband Networks: The Policy Options." *Telecommunications Policy*. Mar '94: 114-136.

Cronin, Francis J. and Paul L. Herbert. "Inequities in the Benefits and Costs of Telecommunications Across Stakeholder Groups." *Telecommunications Policy*. May/Jun '94: 306-320.

Blackman, Colin and Hans Schoof. "Competition and Convergence." *Telecommunications Policy*. 18 (8): 571-572.

Egan, Bruce L. "Building Value through Telecommunications: Regulatory Roadblocks on the Information Superhighway." *Telecommunications Policy*. 18 (8): 573-587.

Mansell, Robin. "Strategic Issues in Telecommunications: Unbundling the Information Infrastructure." *Telecommunications Policy*. 18 (8): 588-600.

Noam, Eli. "Beyond Liberalization III: reforming universal service." *Telecommunications Policy*. 18 (9): 687-704.

1995

Kim, Haeryon. "The Politics of Deregulation: Public Participation in the FCC Rulemaking Process for DBS." *Telecommunications Policy*. 19 (1): 51-60.

Haring, John. "Can Local Telecommunications Be Self-Policing? A Proposed Discovery Procedure." *Telecommunications Policy*. 19 (2): 91-104.

Blackmun, Colin. "Universal Service: Obligation or Opportunity?" *Telecommunications Policy*. 19 (3): 171-176.

Schement, Jorge Reina. "Beyond Universal Service: Characteristics of Americans without Telephones, 1980-1993." *Telecommunications Policy*. 19 (6): 477-485.

Telecommunications Policy 1986-1995	
Universal Service: Issue Definitions and Solutions	
<p>1986: 5 articles</p> <p>Academics ///</p> <p>Bureaucrats</p> <p>Consultants /</p> <p>Industry ///</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Sees no need to improve access to information technologies. Says current gaps are at acceptable levels and will improve over time. (Campaigne) ▪ Proposes economic efficiency of deregulation as best solution for future. (Wenders, Egan) ▪ Suggests competitive, responsive network will result with deregulation. (Johnson) ▪ Proposes an interim plan for gradual deregulation, using tools of welfare economics. (Egan, Weisman) ▪ Suggests that misconceptions about subsidies confuse solutions for deregulation. (Denious)
<p>1987: 3 articles</p> <p>Academics //</p> <p>Bureaucrats /</p> <p>Consultants</p> <p>Industry ///</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Develops a unified conceptual framework for a new competitive structure. (de Fontenay, Hoffberg, Shugard, White) ▪ Proposes that in-home computing has the potential to affect many aspects of personal, household, and organizational life. (Vitalari, Venkatesh) ▪ Recommends that restrictive regulatory law needs to respond to technological change. (Sikes)
<p>1988: 7 articles</p> <p>Academics ///////</p> <p>Bureaucrats</p> <p>Consultants</p> <p>Industry</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Discusses future prospects for deregulation in light of emerging globalization (Irwin) ▪ Reviews economic, technological, and policy issues; how future can build on the past. (Snow) ▪ Proposes that U.S. needs a president who understands the information economy. Must minimize gap between information rich and information poor. (Singh) ▪ Suggests that telecommunication network services be used as a conceptual tool. (Mansell) ▪ Investigates the critical-mass phenomena that characterize network externalities to speculate about universal service under deregulation. (Allen) ▪ States that it is essential that public policy encourages both competition and the involvement of users in the development of new standards. (Tamarin) ▪ Finds the AT&T divestiture agreement flawed and suggests a market-based, phased approach as preferable. (Egan)
<p>1989: 4 articles</p> <p>Academics ///</p> <p>Bureaucrats</p> <p>Consultants</p> <p>Industry</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Sees committed government policy as essential where universal service is goal. (Hills) ▪ States that safeguards for the public are warranted if universal access is to be available in a competitive environment. (Strover) ▪ Sees that USA is falling behind. Suggests that current regulatory approaches merit evaluation because they appear to discourage the development of information services. (Brennan) ▪ States that communications policy-making should be brought into the realm of presidential decision-making; Sees situation as requiring long-range planning, research, coordination, and advocacy. (Brotman)

<p>1990: 5 articles</p> <p>Academics /////</p> <p>Bureaucrats</p> <p>Consultants</p> <p>Industry</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Suggests that social as well as economic concerns and alternative information structures should shape evolving policy. (Bates) ▪ Proposes elimination of current subsidies for rural areas and development of a new subsidy system that targets those who need it. (Fuhr) ▪ Suggests that telecommunications services be improved in rural areas to encourage economic development. (Hudson, Parker) ▪ Finds that history has been the determinant of telecommunications policy and that even in an era of reform, universal service should persist as a policy goal. (Dordick) ▪ States that a choice must be made between a public infrastructure approach focused on social costs and benefits, and a private market paradigm where networks develop according to market forces. (Egan)
<p>1991: 6 articles</p> <p>Academics ////////</p> <p>Bureaucrats /</p> <p>Consultants</p> <p>Industry /</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Describes history of telecommunications regulation since WWII and suggests that regulatory responses to a changing market are too limited. (Phillips) ▪ Finds AT&T divestiture has not limited telephone penetration, but states that a better understanding of socioeconomic, cultural, and geographic factors are required. (Dordick, Fife) ▪ Analyzes effectiveness of low-income assistance programs and finds they contribute to universal service. (Makarewicz) ▪ Analyzes rate structures that subsidize local customers and finds that local competition could ultimately solve current regulatory problems. (Teske, Gebosky) ▪ Shows that few alternatives beyond price regulation exist to resolve rampant complaints about telecommunications industry. (Weiss, Lewis) ▪ Examines the development of value-added communications services and finds they may eventually lead to totally free competition. (Dowling, Witte)
<p>1992: 9 articles</p> <p>Academics //////////</p> <p>Bureaucrats</p> <p>Consultants</p> <p>Industry</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Suggests that the data used to argue whether telecommunications is a natural monopoly is itself affected by incentives given to protected regulation. (Wenders) ▪ Sees rural telephone independents as complex entities, new policy to be flexible enough to address this diversity. (Sawhney) ▪ States that in developing an advanced infrastructure, the plan must take into account the difference between costs of upgrades to existing networks and of bringing services to new, remote subscribers. (Egan) ▪ Presents the Demand Aggregation Model as a conceptual framework for developing innovative network strategies. (Sawhney) ▪ Reviews the recent history of rural telecommunications policy and assesses the social significance of patterns of development. (Calabrese, Jung) ▪ Considers the social implications of technological developments relative to problems/privacy and opportunities/easier interpersonal communication. (Dutton) ▪ Advocates contribution from communication theory in media policy analysis that is now dominated by economists. (Brennan) ▪ Uses “highway” analogy to develop a model for understanding the growth pattern of emerging telecommunications technologies. (Sawhney) ▪ Analyzes the policy-making process and suggests the need for continual monitoring in an era of rapid technological change. (Ogan)

<p>1993: 7 articles</p> <p>Academics //////////////</p> <p>Bureaucrats /</p> <p>Consultants /</p> <p>Industry //</p> <p>TP Editor</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Analyzes the potential impact of fiber to the home deployment in 5 states and suggests that legal issues will be resolved by state utility commissions. (O’Lessker, Dupagne, McGregor) ▪ Estimates costs per access line for rural telephone companies and recommends if universal service is the goal, that only companies with high costs should receive subsidies. (Armstrong, Fuhr) ▪ Recommends adoption of “customer necessity” regulation, where the focus is on maximizing economic welfare rather than the welfare of competitors. (Haring, Weisman) ▪ Provides extensive data showing that competition in the long-distance market has benefited customers; recommends comprehensive change, not piecemeal. (Garfinkel) ▪ Examines critically the historical claims of universal service and shows that interconnection, not public interest, motivated policy-makers. (Mueller) ▪ Suggests centralized model of telecommunications infrastructure development from other countries not applicable in U.S. cultural context. (Sawhney) ▪ Finds little evidence that U.S. is being polarized in terms of telecommunications haves and have-nots. (Sheilds, Dervin, Richter, Soller)
<p>1994: 7 articles</p> <p>Academics ///</p> <p>Bureaucrats /</p> <p>Consultants /</p> <p>Industry //</p> <p>TP Editor //</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Fears that governments and the telecommunications industry are in danger of creating a global information-rich elite while condemning the rest of the planet to the information slums. (Blackman) ▪ States that ATM networks can accommodate all communication services; universal service goal is not economically optimal, but public interest transcends the market. (Downs) ▪ Presents a methodology that quantifies the telecommunications benefits and costs to various stakeholder groups. Subsidy programs need to be targeted. (Cronin, Hebert) ▪ States that regulators will be challenged to manage the tension between convergence-concentration of power and competition. (Blackman, Schoof) ▪ States that established regulatory processes focus on constraining market power and represent a formidable roadblock to increased network development. (Egan) ▪ States that regulation will continue to be needed in the face of competitive entry to ensure fair terms of network access for all users. (Mansell) ▪ Proposes a new way to fund universal service based on the premise of equal rights and equal burdens to all carriers. (Noam)

<p>1995: 4 articles</p> <p>Academics //</p> <p>Bureaucrats /</p> <p>Consultants</p> <p>Industry</p> <p>TP Editor /</p>	<p>Solutions:</p> <ul style="list-style-type: none"> ▪ Examines public participation in FCC deregulatory rulemaking. Finds citizen participation much less intense than industry interest-groups. (Kim) ▪ Advocates a comprehensive rather than fragmented approach to policy-making. Sees current subsidy system as not sustainable, and universal service as economically inefficient. (Haring) ▪ “In a competitive environment is there a need to rethink what we mean by the term ‘universal service’ and ‘universal service obligation’? How much does it cost and who is going to pay for it? And what will universal service mean in future in the era of the information superhighway?” (Blackman) ▪ Explores the characteristics of Americans who lack telephones, using FCC and census data from 1980 to 1993. Proposes policies that might lead to greater levels of participation. (Schement)
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UNIVERSAL SERVICE MEDIA CODING FORM

Form Number ____

Publication Title and if LEXIS-NEXIS include number:

NYT ____ Wall St J ____ Wash Post ____
 Congress Q ____ National J ____ LEXIS-NEXIS ____ and # ____

TITLE:

AUTHOR:

Date: 1986 ____ 1987 ____ 1988 ____ 1989 ____ 1990 ____
 1991 ____ 1992 ____ 1993 ____ 1994 ____ 1995 ____

Length: 0-1000 ____
 1000-2500 ____
 more than 2500 ____

Article not applicable: _____

Attitude toward UNIVERSAL SERVICE:

	SUPPORT	OPPOSITION	NEUTRAL
President Reagan			
VP Bush			
President Bush			
VP Quayle			
President Clinton			
VP Gore			
Federal/State Agencies: (Include names)			
Interest and Industry Groups: (Include names)			
Politicians (Include names)			

ISSUE DEFINITION check as many as apply for each article:

- Equity vs. Efficiency _____ (uni serv policy is a matter of conflict between the two)
- Efficiency (market forces) _____ (important)
- Equity _____ (important)
- Deregulation _____ (telecommunications policy should be deregulated)
- Rural Citizens _____
- Low Income Citizens _____
- Technology _____
- Social Benefits _____ (to children, rural communities, education, medical care, etc.)
- Call for expanded definition _____ (should include more than just voice telephone service)
- Danger without universal service _____ (there will be information haves and have-nots)
- Harm caused by univer service _____ (to industry, to consumers, stifles economic development)
- Problem of teleco industry greed _____
- Consumer issue _____ (savings/costs passed on to consumers)
- Call for preferential treatment _____ (for schools, libraries, health care facilities, etc.)
- Summary/History/description _____ (of universal service policy)

ISSUE DEFINITION not covered by the list:

POLICY IMAGE check as many as apply for each article:

- Deregulation _____ (May include competition)
- Technology _____ (Is the main theme in the article telecommunications technology?)
- Information Highway _____ (or information infrastructure)
- Uniserv as detrimental _____ (to the economy, to competition, to consumers)
- Creation of information haves/have-nots _____
- Essential to the rural citizen _____
- Essential to the low income citizen _____
- Conveyor of personal benefits _____ (education, telecommuting, telemedicine, etc.)
- Argument – uniserv expanded definition _____ (beyond voice/telephony)
- Cyberporn _____

POLICY IMAGE not covered by the list:

RECOMMENDED SOLUTIONS check as many as apply for each article:

- Eliminate universal service _____
- Let the market take its course _____
- Universal Service Fund _____
- Change current system of subsidies _____
- Improve/expand universal service _____ (provide more Or expanded services)
- Develop new policy _____
- Give states a role in administering policy _____
- Deregulation (Competition) _____

SOLUTION not covered by the list:

TONE:

- Positive (support a revised telecommunications/universal service policy)** _____
- Negative (opposed to a revised telecommunications/universal service policy)** _____
- Neutral** _____

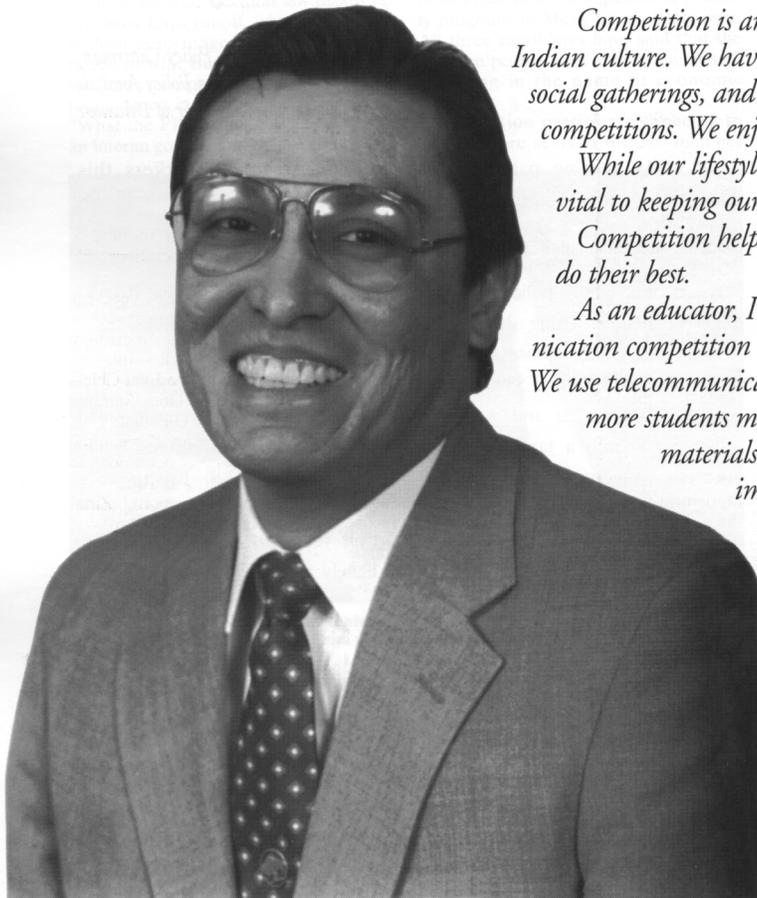
Roper Center for Public Opinion Research		
Conducted By	Questions	Survey Sponsor
1986	Telecommunications	
Cambridge Reports	<ul style="list-style-type: none"> ▪ Voice automated services: good or bad idea? ▪ Services improved over past years: telephone and telecommunications? ▪ Favorable or unfavorable institutions: telephone and telecommunications industry? 	
Louis Harris	<ul style="list-style-type: none"> ▪ If you had to pick now, which long distance telephone company would you pick: AT&T, MCI, Sprint, other? ▪ Who did you choose as your long distance telephone company: AT&T, MCI, Sprint, other? 	Business Week
Cambridge Reports	<ul style="list-style-type: none"> ▪ Do the following industries deserve to be protected from foreign competition: telecommunications industry? ▪ Which service would be most important for the government to encourage businesses to export: telecommunications equipment? ▪ Which service would be most important for the government to place import restrictions on: telecommunications equipment? ▪ Has deregulation of the telephone-telecommunications industry been in the best interests of the country and consumers or not? 	
Cambridge Reports	<ul style="list-style-type: none"> ▪ What kinds of companies pose the least environmental threat: high technology companies that produce things like telecommunications equipment? 	
Louis Harris	<ul style="list-style-type: none"> ▪ Do you think import competition from Japan (products such as computers and telecommunications) does harm, good, does not matter? 	Asahi Shimbun
Roper Organization	<ul style="list-style-type: none"> ▪ Attitudes toward specific industries: telecommunications and information services industry? 	
1987	Telecommunications	
Cambridge Reports	<ul style="list-style-type: none"> ▪ Favorable or unfavorable institutions: telephone and telecommunications industry? 	
Roper Organization	<ul style="list-style-type: none"> ▪ How effective are industries in competing against foreign companies in international markets: telecommunications? ▪ What products would you oppose or favor U.S. companies selling to the Soviet Union: telecommunications systems such as high-tech telephone switches? ▪ What products would you oppose or favor U.S. companies selling to the Soviet Union: telecommunications systems such as high-tech telephone switches? 	
Cambridge Reports	What kinds of companies pose the least environmental threat: companies that produce telecommunications equipment	
1988	Telecommunications	
Cambridge Reports	<ul style="list-style-type: none"> ▪ Is deregulation in the best interests or nor of the country or individuals? ▪ What is your opinion of the following industries: telecommunications industry—favorable/unfavorable? ▪ Is the telecommunications industry: reliable, responsive, 	

	<p>competent, accessible, etc.?</p> <ul style="list-style-type: none"> ▪ When you hear the phrase telecommunications industry do you think of—AT&T, RBOCs, IBM, cable, etc.? ▪ Why do people do business with particular telecommunications provider? 	
1989	Telecommunications	
Louis Harris	<ul style="list-style-type: none"> ▪ In what areas is significant change taking place: the computer and high speed telecommunications? 	
Cambridge Reports	<ul style="list-style-type: none"> ▪ Is deregulation in the best interests of the country and individuals? ▪ Is your attitude toward the telecommunications industry favorable or unfavorable? 	
1990	Telecommunications	
Opinion Research	<ul style="list-style-type: none"> ▪ Does the telecommunications industry harm the environment? 	
1991		
None		
1992		
Cambridge Reports	<ul style="list-style-type: none"> ▪ Does the telecommunications industry harm the environment 	
1993	Telecommunications	
Wirthlin Group	<ul style="list-style-type: none"> ▪ What will better technology bring in the future: better telecommunications networks? ▪ What companies are associated w/info highway? <p>Agree or disagree w/statements about info highway?</p> <ul style="list-style-type: none"> ▪ Will make TV more useful? ▪ Will have better TV programming? ▪ Makes TV more fun? ▪ Makes TV more expensive? ▪ Makes TV more intrusive? ▪ Increases consumer choice? ▪ Increases power of cable companies? ▪ Makes TV more confusing? ▪ Turns people into couch potatoes? ▪ Makes it easier to weed out objectionable programs? ▪ Encourages families to do more together? ▪ Would you be willing to pay more for cable and TV combined? ▪ What % willing to pay for new services? ▪ How important is it for the US to maintain the information highway? 	
Times Mirror News	<ul style="list-style-type: none"> ▪ What companies are laying off workers: telecommunications? 	
	Information Highway	
Wirthlin Group		
	Same survey as above cross-listed with telecommunications.	
1994	Telecommunications	
Greenberg Research	<ul style="list-style-type: none"> ▪ The UN establishes standards for telecommunications? ▪ It is important/not important that the UN establishes telecommunications standards? 	Amer Talk Issue Found
	Information Superhighway	
Princeton Survey Res	<ul style="list-style-type: none"> ▪ Have you heard of the Internet? 	Times Mirror News
Yankelovich	<ul style="list-style-type: none"> ▪ Information superhighway: familiar or not familiar? 	Time. CNN

	<ul style="list-style-type: none"> ▪ Information superhighway makes things better? ▪ Information superhighway makes things simple or more complicated? 	
Roper Starch	<ul style="list-style-type: none"> ▪ 	Nat TV Assoc Nat Assoc Broadcasters
Information Highway		
Wirthlin Group	<ul style="list-style-type: none"> ▪ Names of companies you expect are involved in the information highway? (AT&T, IBM, MCI, RBOCs, etc.) 	
Louis Harris	<ul style="list-style-type: none"> ▪ What have you heard about related to computers: information highway? ▪ Do you understand the information highway? 	
Wirthlin Group	<ul style="list-style-type: none"> ▪ What are the privacy implications of the information highway? 	
ICR Survey Research	<ul style="list-style-type: none"> ▪ Where are you on the info highway: ramp, pit stop, passing on left lane? ▪ When it comes to purchasing new tech are you an early adapter ...? ▪ On scale of 1 to 10 how difficult is it to learn new tech (ATM)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (VCR)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (CD play)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (PC)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (cell phone)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (remote control)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (video games)? ▪ On scale of 1 to 10 how difficult is it to learn new tech (microwave oven)? ▪ Importance of MACs or ATMs in your life? ▪ Importance of VCR in your life? ▪ Importance of CD player in your life? ▪ Importance of PC in your life? ▪ Importance of cell phone in your life? ▪ Importance of TV remote control in your life? ▪ Importance of video games in your life? ▪ Importance of microwave oven in your life? ▪ How many hours a week do you spend using a computer? ▪ How many hours a week do you spend watching TV? ▪ How many hours a week do you spend using a VCR? ▪ How many hours a week do you spend on the telephone? ▪ Which do you trust more email or U.S. post office? ▪ Scale of 1 to 10 how comfortable w/new technologies? ▪ Most technologically advanced product you own? ▪ How does VCR add to quality of life? ▪ How does CD player add to quality of life? ▪ How does PC add to quality of life? ▪ How does cell phone add to quality of life? ▪ How does TV remote add to quality of life? ▪ How does microwave oven add to quality of life? ▪ How does voice mail/answering machine add to quality of life? ▪ How interested are you in the concept of interactive TV? 	Porter/Novelli

	<ul style="list-style-type: none"> ▪ Men or women more comfortable w/ new technology? ▪ Are men or women more comfortable with new technology? 	
Louis Harris	<ul style="list-style-type: none"> ▪ Have you seen or heard about the info highway? ▪ How well do you understand the info highway (well/not well)? ▪ Do you think info highway is about entertainment, business, science? ▪ Do you think info highway is an excellent, good, fair good, bad idea? 	
1995	Telecommunications	
Mellman Group	<p>From a list of reasons why people oppose RBOCs say how you feel about particular items:</p> <p>Growth in technology is confusing so the government needs to regulate?</p> <p>Full competition creates 3.6 million jobs?</p> <p>Full competition will result in lower rates for cable, local, long distance?</p> <p>Competition will hold down prices, spur innovation (movies on demand)</p> <p>Are you employed in teleco field?</p>	RBOCs
Los Angeles Times	<ul style="list-style-type: none"> ▪ Newt Gingrich has negotiated a deal to write a book for a publishing company owned by Rupert Murdoch who has a stake in telecommunications legislation. Has this changed your view of Gingrich? 	
	▪	
	Information Superhighway	
Yanklovich	<ul style="list-style-type: none"> ▪ The information highway: familiar not very, not at all? ▪ Do you think new technology like the information superhighway will make life in general better or worse? ▪ Do you think new technology like the information superhighway will make life in general simpler or more complicated? 	Time, CNN
	Information Highway	
Hart & Teeter	<ul style="list-style-type: none"> ▪ You may have heard the term information highway that refers to a new series of technologies that will allow you to use your TV to conduct all kinds of transactions like banking, shopping, entertainment, etc. What is your reaction: positive, negative, neutral? 	

Why we need real competition in long distance—now.



Competition is an integral part of our society and the Indian culture. We have powwows at our celebrations and social gatherings, and include friendly dance and singing competitions. We enjoy and thrive by competing.

While our lifestyle is one of cooperation, competition is vital to keeping our society growing and alive.

Competition helps individuals and groups strive to do their best.

As an educator, I see the positive results of telecommunication competition in innovations in teaching methods. We use telecommunications to enhance education, reach more students more efficiently, and with better materials. We can capture our students' imaginations, bring new ideas to them, and help them grow.

To me, competition in telecommunications is more than just an abstract theory—it means a better life and greater opportunities for all our children. I urge Congress to support full competition in telecommunications—now.

Robert Eaglestaff

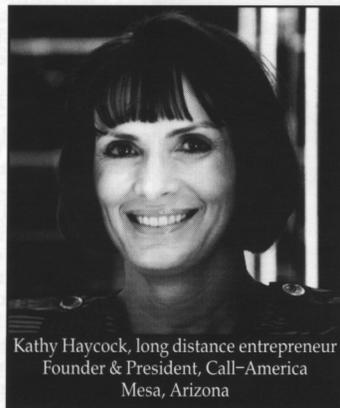
Principal, American Indian Heritage School, Seattle, Washington.

Support the Breaux-Packwood bill, S.2111.

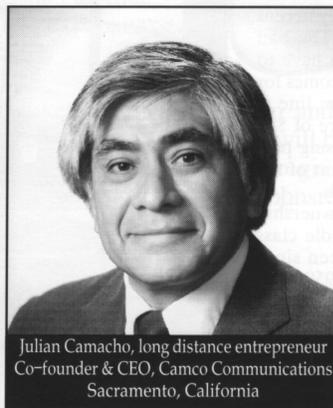
**Ameritech, Bell Atlantic, BellSouth, NYNEX,
Pacific Telesis Group, Southwestern Bell Corporation, U S WEST**

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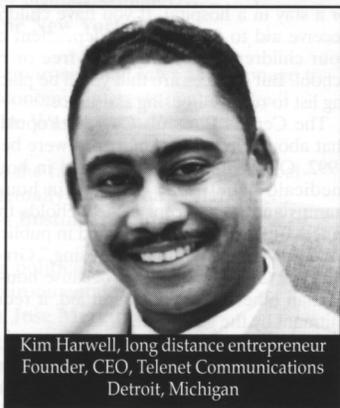
These Entrepreneurs Could Teach The Bell Monopolies A Few Things About Competition.



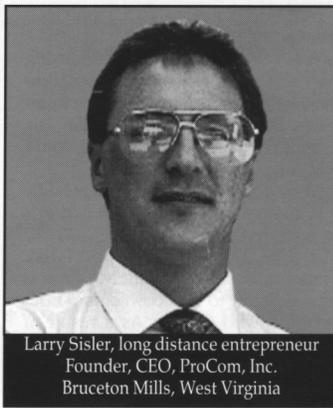
Kathy Haycock, long distance entrepreneur
Founder & President, Call-America
Mesa, Arizona



Julian Camacho, long distance entrepreneur
Co-founder & CEO, Camco Communications
Sacramento, California



Kim Harwell, long distance entrepreneur
Founder, CEO, Telenet Communications
Detroit, Michigan



Larry Sisler, long distance entrepreneur
Founder, CEO, ProCom, Inc.
Bruceton Mills, West Virginia

Over the last few weeks, you've been introduced to a few of the people who run America's long distance companies. They represent some of the more than 500 long distance entrepreneurs who are competing every day against the likes of AT&T, Sprint and MCI. This competition in the long distance industry has led to more choices and lower prices for consumers. In fact, over the last 10 years, the real cost of long distance calls has dropped by more than 66%.

Yet the Bell monopolies want you to believe that America's long distance entrepreneurs simply don't exist. And they want to enter the already competitive long distance marketplace with their local monopolies still intact.

Which is why you should contact your Senators and urge them to support S.1822, the legislation that opens local markets to competition before the Bells enter the long distance business.

Support S.1822. Because it guarantees local competition *first*.

The Competitive Long Distance Coalition

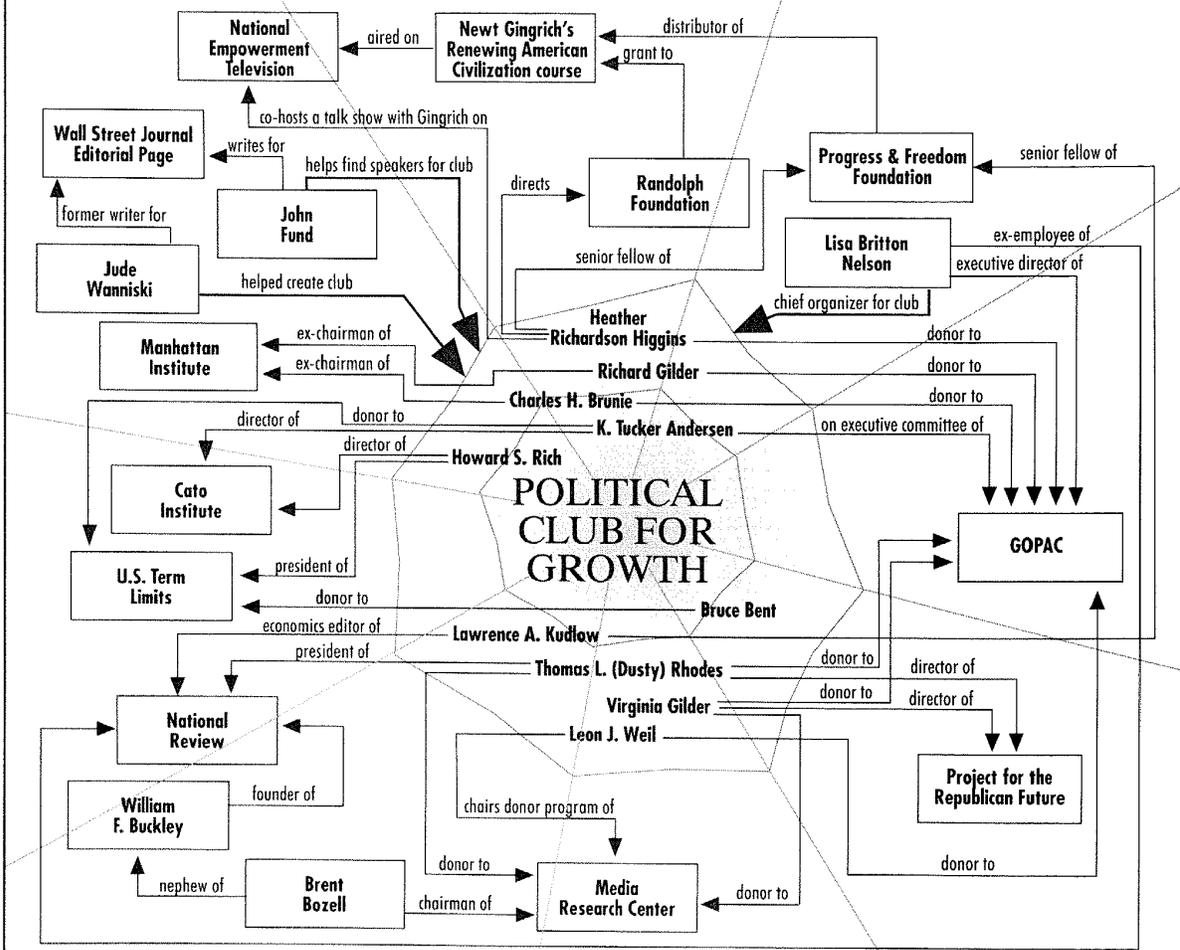


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A WEB OF IDEOLOGICAL AND FINANCIAL TIES

The New York City-based Political Club for Growth is entwined in a network of conservative and libertarian activists and groups. Its members provide money and assistance to others in the network—and some-

times receive help in return. Listed at the center are 10 leading members of the club who have myriad connections throughout the network.



- Cato Institute:** a Washington-based libertarian think tank
- GOPAC:** the political action committee of House Speaker Newt Gingrich of Georgia
- Manhattan Institute:** a free-market-oriented, New York City-based foundation
- Media Research Center:** an Alexandria (Va.)-based conservative foundation
- National Empowerment Television:** a Washington-based conservative satellite network
- National Review:** a conservative-movement magazine based in New York City
- Progress & Freedom Foundation:** a Washington-based think tank run by a former Gingrich aide
- Project for the Republican Future:** a Washington-based strategy group headed by William Kristol
- Randolph Foundation:** a New York City-based conservative foundation
- U.S. Term Limits:** a Washington-based advocacy group

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Joanne D. Eustis

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EDUCATION: Ph.D., Environmental Design and Planning Program, College of Architecture, Virginia Polytechnic Institute and State University. 2000

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M.L.S., Library Science. Indiana University, Bloomington, Indiana, 1975

B.A. English Literature. Indiana University, Bloomington, Indiana, 1974

Assoc., Hartford College for Women, Hartford, Connecticut, 1963

PROFESSIONAL EXPERIENCE:

1998 - . Director. University Library. Case Western Reserve University (CWRU).

1995 - 1998. Director of Planning and Program Review (Assistant Professor). Information Systems, Virginia Polytechnic Institute & State University (VPI & SU).

1992 - 1994. Interim University Librarian (Assistant Professor). University Libraries, VPI & SU.

1991 - 1992. Head, Access Services Department (Assistant Professor). University Libraries, VPI & SU.

1990 - 1991. Head, User Services Department (Assistant Professor). University Libraries, VPI & SU.

1987 - 1989. Performing Arts/Media Librarian (Assistant Professor). User Services Department, University Libraries, VPI & SU.

1979 - 1986. Assistant Humanities Librarian (Assistant Professor: July 1980-1986; Instructor: October 1979-July 1980), Humanities Reference Department, University Libraries, VPI & SU.

1978 - 1979. Assistant General Reference Librarian (Instructor). General Reference Department, University Libraries, VPI & SU.

SELECTED PUBLICATIONS:

Eustis, Joanne D. (with C. David Taylor). "Assessing the Impact of Changing Technology on Teaching and Learning at Virginia Tech: A Case Study." In *Information Technology: Assessing Its Impact and Planning for the Future*. Edited by Richard N. Katz and Julia A. Rudy, 55-70, San Francisco: Jossey-Bass Publishers, 1999.

Eustis, Joanne D., and Gail McMillan. "Libraries Address the Challenges of Asynchronous Learning." *JALN: Journal of Asynchronous Learning Networks*. March, 1998. <http://www.aln.org.alnweb/journal/>

Eustis, Joanne D., and Donald J. Kenney. SPEC Kit on the Restructuring/Reorganization Process in ARL Libraries. June, 1996.

Eustis, Joanne D., Linda Maddux and Dana Sally. "Adapting Information Services to New Realities: The Collegiate Librarian/Information Officer Program at Virginia Tech." Virginia Librarian (August, 1995).