The FCC Access Charge Plan: The Debates Continue

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Executive Summary

- The Access Charge Plan (ACP) was, and continues to be, the FCC's vehicle for overseeing the transition of the interstate long distance market from a regulated monopoly to a competitive, multi-supplier industry. That the implementation of the plan was to coincide with the divestiture of the Bell system only heightened the confusion and anxiety over the major changes the industry was about to face.

- Perhaps because of the impending divestiture date, the ACP emerged in 1983 long on functionality and substantively complete, but short of the negotiated compromises necessary to achieve political saleability. After the ACP's implementation was delayed under threat of congressional override, the FCC sacrificed functional completeness for slow, measured modifications to the plan, based on extensive proceedings and supported by hard data.

- These modifications and the interruption of the transition to end-user charges cast a new pall of uncertainty over the industry, launching a new set of controversies as stakeholders attempted to react to these changes. Local exchange carriers (LECs), seeking to minimize the threat of bypass brought about by the continued recovery of loop costs from usage-based charges, proposed alternative non-traffic sensitive (NTS) recovery tariffs designed to ensure that recovery. Other common carriers (OCCs), citing continued AT&T competitive advantages, successfully petitioned the FCC to modify its interexchange carrier (IXC) selection process, but were unable to obtain additional concessions on the way non-premium access is measured and on how the discount for non-premium access would end.

- The NTS cost recovery controversy dates back to the turn of the century. The relationship between NTS costs and rates was nebulous, as rates were determined on a "value-of-service" basis rather than on a cost-causational one. But after regulatory jurisdictional battles brought consistency to cost accounting, culminating in the U.S. Supreme Court's Smith vs. Illinois Bell decision and the creation of the FCC by the Communications Act of 1934, the Separations Manual of 1947 introduced those same principles to interstate ratemaking. However, the principles underlying the flat-rate end-user charge, for the recovery of NTS costs, appear to resemble those that prevailed earlier in the century.

- The uncertainty introduced by the deferral of end-user charges left an additional $2.5 billion in NTS costs to be recovered from the IXCs. This prompted the LECs to file alternative NTS recovery schemes with the FCC, designed to minimize bypass of the local network. In 1986, the FCC issued guidelines for its acceptance of these alternative schemes.

- The equality-of-interconnection controversy took many forms during the access charge debates. What started out as an issue of price discrimination settled into a controversy over the definition of equal access and its role in determining the existence of a competitive market. Equal access was used as the basis for phasing down the OCC non-premium discount.

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Foreword

The divestiture of the Bell System took place during January 1984, but without the expected implementation of the end-user charges and carrier access charges that were to compensate local exchange carriers (LECs) for the use of their exchange facilities. The FCC's Access Charge Plan (ACP) was to have provided the guidelines which would lead the industry from a pre-divestiture arrangement of settlements and revenue sharing to the post-divestiture access charge regime. Yet so complex were the issues associated with its implementation and so intense were the debates and pleadings on the part of the stakeholders that it was five months before interstate access tariffs became effective.

By chronicling some of the major FCC debates and rulings, this paper attempts to provide, for the reader who may not be familiar with access charge details, a broader perspective on the issues underlying the access charge controversies. A Postscript updates key developments since the initial publication of this study. The Postscript contains jargon which is fully described within the text; to help the reader follow the issues, the events are listed here with their location in the text. While some of the controversies have subsided as a result of these events, the book on the ACP remains open and filled with debate.

Event in Postscript	Reference in Text
FCC order on end-user charges	Chapter 6
FCC ruling on NYNEX alternative access tariffs	Section 4.3.1-.2; Chapter 6
MCI letter on 800 database	Section 5.3.1; Chapter 6
FCC modifications to jurisdictional separations	Section 2.2
FCC ruling on rate of return	Section 3.5.3

1

THE 1970S: A DECADE OF CHANGE

1.1. Influence of Competition on the Development of the Access Charge Plan

1.1.1. Question of Interconnection

Despite observers' inclination to focus on 1984 and the Bell System divestiture, and thus to draw comparisons with its Orwellian antecedent, the forces that drove the FCC to develop its Access Charge Plan (ACP)[1] had sent out roots long before that eventful year. Perhaps those forces were initiated by the FCC's Above 890 decision,[2] which opened microwave transmission facilities to competition, or by the FCC's decision on Specialized Common Carriers,[3] which opened the private line market to competition. Whatever the provocation, the inroads of competition by the end of the 1970s were causing a fundamental change in the manner in which the traditional telephone industry did business.

That tradition, evolving from years of disputes and compromises, was characterized by a complex set of toll revenue sharing agreements: settlements (between the Bell System and the various independent telephone companies) and division of revenues (between the Bell operating companies and the Long Lines Department of AT&T).[4] These agreements evolved over time to a mechanism whereby the revenue from each long distance toll call covered a portion of the costs associated with providing the local loop. This recovery of local loop costs, according to John Wenders, "raised the cost of [interstate] long distance calls by about 14 cents a minute. An additional [cost recovery] was generated in a similar way from intrastate long distance calls."[4a] In other words, in accordance with the conventions

upon which these agreements were based, usage-based toll rates covering use of the public switched network (PSN), as administered by the Bell System, with cooperation from the independent telephone companies, also covered a portion of costs associated with the local loop. Thus local exchange rates were lower than they would have been if they had to recover the entire cost of the local loop.

The specific long distance services that used the public switched network and thus reflected this local loop cost recovery in their rates were the MTS and WATS services. While some would argue over the extent of, and indeed the existence of, this contribution to local loop costs today, few would minimize its importance in maintaining reasonable local rates over time, leading to a 91.8% telephone penetration rate as of 1985.[5]

This mechanism might have continued unencumbered by the growth of competition were it not for a fundamental change in the services provided by competition. In 1971, the FCC announced a policy for authorizing specialized common carriers (SCCs) to compete in the provision of private line services and established procedures for interconnecting these proposed services with local distribution.[6] This order was a response to applications by carriers such as MCI who "propose[d] point-to-point facilities for private line services including, but not limited to, data transmission."[7] By considering these applications to be in the public interest, the Commission was focusing only on private line as the competitive market. Indeed, when considering the impact on the PSN services the Commission said, "None of the applicants proposes to provide this type of service and we see no reason to expect any undesirable effects upon these services."[8]

However, in 1974, MCI revised its tariff by offering a service marketed under the name of Execunet. With Execunet, MCI linked its private line network with local interconnections in such a way that an Execunet customer could enter MCI's network from any phone in the area served by the network and, after entering a subscriber authorization code, dial an ordinary long-distance number. The call would travel over MCI's private facilities to the appropriate local exchange, and be routed along local lines to the called party. After AT&T filed a complaint with the FCC, the Commission ruled that Execunet:

> is essentially a switched public message telephone service rather than a private line. . . . Since your authorizations are limited to private line services, you cannot lawfully tariff and operate other services on these facilities.[9]

The FCC reaffirmed this action in July 1976.[10]

MCI took this decision to court, whereupon the Court of Appeals overruled the FCC. The Court found that the FCC had never determined that the public interest would be served by a Bell monopoly in MTS and WATS services.[11] In a following order, the Court required local telephone companies to provide the SCCs with interconnections with the local network.[12]

While these court orders allowed for the existence of MTS-type services, such as Execunet, they did not address the question of how the local telephone company should be compensated for providing interconnection with the local network. Two intricately tied issues, both economic and policy oriented, underscored this question:

1. What rates should the local telephone companies charge the SCCs for interconnecting with the local network, recognizing differences

in costs and quality, such as noise level and signal strength, compared with interconnecting MTS and WATS services?

2. To what extent should these rates contribute to the recovery of local loop costs, as was implicit under the settlements agreements, which underlied MTS and WATS rates?

The complexity of these issues appeared to preclude a quick resolution. Indeed, the immediate problem of complying with the court order was only resolved as a result of extensive negotiations between AT&T and the newly referred to other common carriers (OCCs) under FCC aegis, culminating in the Exchange Network Facilities for Interstate Access (ENFIA) tariffs, adopted by the FCC in April 1979.[13] The policy issues were to be addressed by the FCC in Docket 78-72, initially its investigation of the MTS and WATS market structure, beginning in 1978, and ongoing in 1987 regarding access charges.

1.1.2. Chronology of Access Charge Plan

Docket 78-72: Notice of Inquiry. In February 1978, the FCC initiated an investigation to determine the MTS-WATS market structure that would best serve the public interest.[14] The Commission alluded to the Court of Appeals' Execunet decision by asking "whether the public interest would be better served by conferring single source status upon MTS and WATS, in whole or in part, or by authorizing some other kind of industry structure. . . ."[15] Among the areas of investigation was the question of long distance toll contribution to the recovery of local loop costs:

> We therefore propose to determine what reimbursement interstate services should make to local operating companies for the use of local plant, on a cost causational basis; what additional charges, if any, should be levied on interstate services to support local

> exchange services; and whether and how these charges can be equitably imposed on all interstate services. For the purposes of this issue we will be examining all interstate services of all carriers, not just MTS and WATS.[16]

Second Supplemental Notice. In its Second Supplemental Notice (1980)[17] the FCC offered a tentative plan for interexchange carrier compensation of local exchange carriers for the use of local facilities. During the ENFIA negotiations, AT&T had proposed OCC access charges for MTS-WATS equivalent services. These proposed rates achieved parity with the traditional industry's interstate compensation to the local network through MTS and WATS revenues. MCI complained that these charges would create unlawful discrimination because they were much higher than the charges that customers of AT&T's Foreign Exchange (FX)[18] services pay for access at the open end. MCI claimed that the access it received for Execunet was identical to the access FX customers received. The Commission was sensitive to this discrimination problem:

> The history of the ENFIA negotiations demonstrates that it would be impossible to prescribe any charges for the origination and termination of services that are functionally equivalent to MTS or WATS without determining the appropriate relationship among origination and termination services for MTS-WATS, functional equivalents of MTS-WATS, and [FX] open ends. That history also indicates that there is no basis for assuming that the present relationship is appropriate.[19]

The Commission also decided to include the local interconnection of private line services in its access charge plans. Specifically, it was proposed that private lines be allocated a portion of the costs of the local loop on a per-minute basis.

Thus the debates over the two underlying issues, raised in the previous subsection, became more focused, but the questions, themselves, might be generalized as follows:

1. What rates should the local telephone companies charge for interconnecting long distance services with the local network?

2. To what extent should these rates, charged to long distance services, contribute to the recovery of local loop costs?

Before they were addressed by the Second Supplemental Notice, these issues were rather parochial to a core group of telephone company executives, regulators, and other "subject matter experts" within the telephone industry. Although there was congressional activity stirring during the mid-1970s, beginning with the Consumer Communications Reform Act of 1976,[20] this activity centered on the nature of competition in the telephone industry and the role of AT&T. These access charge issues, on the other hand, were viewed by policymakers as primarily concerned with compensation by one type of telephone company, the long distance carrier, to another, the local telephone company. Observers assumed that only long distance carriers' rates would reflect these access charge issues, and that the implications would be of no real consequence to the general public. However, as comments to the Second Supplemental Notice (1980) pointed out, the implications of access charges would go beyond toll rates, but include local rates as well. Thus, wider participation in the discussion was inevitable.

An early example of that participation was Senate bill S.898.[21] Introduced in October 1981, S.898 attempted to formalize the concept of universal service by emphasizing broad availability of telephone service at reasonable costs. While S.898 and its sister House bill, H.R. 5158,[22] eventually stalled, having been supplanted by the AT&T antitrust settlement, a looming threat of congressional intervention on

telecommunications matters remained a crucial component in the shaping of the future debates.

Fourth Supplemental Notice. The debates broadened as a result of the FCC's Fourth Supplemental Notice of Inquiry (1982).[23] Acknowledging the influence of the recently announced antitrust settlement, the Commission sought comments on the following problem statements:

> 1. Whether some alternative [to the separations procedures] means of cost assignment between the MTS-WATS and private line categories are needed. Specifically, are the Commission's public interest goals best served by a continued policy to charge for non-traffic sensitive("NTS") costs on a usage basis or is some form of "gross assignment" and flat rate pricing appropriate;
>
> 2. Whether, in the foreseeable future, with the continuing advancement of technology, the tentative access charge plan would provide to potential users of MTS and MTS alternatives the incentive to bypass the public switched network (PSN);
>
> 3. Whether the uniform nationwide system of access charges proposed in the tentative plan should be disaggregated into a system of charges based upon exchange, local carrier, or state-by-state classifications, and what should be the rates of return on capital assigned to the interstate category;
>
> 4. In a telecommunications industry restructured under the terms of the proposed antitrust settlement, what would be the most effective mechanism for implementing and administering the access charge plan we ultimately adopt;
>
> 5. How should an access charge take into account, if at all, the difference in interconnection quality received by different carriers? Is a discount in the share of non-traffic sensitive costs paid by the other common carriers("OCCs") providing MTS/WATS like services (compared with AT&T) an appropriate mechanism? If some form of non-usage based assignment of much or all NTS costs is undertaken, how should the difference in interconnection quality be dealt with?[24]

The first two problem statements introduced concepts that were ultimately to become subjects of continued controversy. The first concept, gross assignment and flat rate recovery of local loop costs,

resulted from the concern over price discrimination associated with private line interconnections. In the Second Supplemental Notice (1980), the FCC proposed a per-minute usage assignment of NTS costs to interstate private lines. Private line customers, who typically have heavy per-line traffic loads, anticipated that the impact of this proposition would be substantially higher private line rates. They complained to the FCC, which acknowledged that since "heavy use of private lines imposes no more cost on the system than does light use, a per-minute charge, . . . could distort a market where services are, arguably, currently priced appropriately."[25] The FCC further noted:

> The obvious alternative is, in principle, to treat the facilities used for local access to the public switched network like private lines. Specifically, the goal of non-discrimination could be achieved if all non-traffic sensitive plant were assigned directly to the customers using it. Thus private line costs would continue to be directly assigned, and MTS and WATS bills would contain a per line NTS assignment that would not vary with usage. Every customer, under this approach, would pay a flat (per line) access charge that did not vary with use, plus usage based interstate charges that reflected only usage sensitive facilities, plus local charges.[26]

Recognizing the potential impact this approach would have on the telephone rate structure, particularly on the residential end user, the Commission asked for comments on various approaches: this "pure" direct assignment approach, a "pure" usage-sensitive assignment approach, and two "mixed" strategies that reflected combinations of the two.

The second concept introduced by these problem statements was the notion of bypass. The Commission acknowledged that technology had advanced to the point where the local telephone exchange facilities were no longer the only feasible method of local distribution. Thus, it was concerned that overpricing local private line services would contribute to bypass of private line facilities. While this initial concern was

limited to a private line context, one which would later be overshadowed by a concern over the use of private line services to bypass the local PSN, the FCC opened the discussion to broader contexts by "encourag[ing] interested persons to provide us with additional information that will assist us in evaluating the immediacy and magnitude of the [bypass] phenomenon and in identifying the level of access charges that would be appropriate if we were ultimately to conclude that a departure from usage-based charges would be justified."[27]

If there were any questions about the direction these proceedings were going prior to the Fourth Supplemental Notice (1982), they were quickly dispelled after its release. The alternative access charge plans, proposed for comment, distinguished clearly among stakeholders' camps and their positions. The wider participation to the debates is evidenced in Figure 1-1, which compares participants who filed comments to the Second Supplemental Notice (1980) with those who responded to the Fourth Supplemental Notice (1982). The substantial list of new entrants, responding to the latter, include, notably, many consumer groups, who were prepared to do battle with the proposal to charge customers a flat per-line access charge, and state public utility commissions, who would oppose any proposal that jeopardized their jurisdictional oversight of local exchange rates. The ACP was to foment industry turmoil for years to come.

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Source: Third Report and Order, 93 FCC 2d 241 (1982), Appendices B and D.

Figure 1-1

Parties Who Commented on the Second and Fourth Supplemental Notices of Inquiry in Docket 78-72

Third Report and Order. The FCC was facing a target for access charge implementation; this target of January 1, 1984, was the date of the divestiture of the Bell System specified in the Modification of Final Judgment.[28] Wrote the Commission, "On the date of divestiture, the [division of revenues process] will no longer exist. The MFJ requires the termination of this system and its replacement by a generalized tariffed offering of access service."[29] As it turned out, that target date was of minor consequence, for the divestiture occurred on schedule, before the effective date of access tariffs. But to the FCC, the date represented a deadline for issue resolution. With new alliances emerging, prepared to do battle to protect their interests, time was short to build the consensus required to support such a major policy change.

To allow sufficient time for implementation, the FCC rushed through its review of the Fourth Supplemental Notice (1982) comments and adopted the Third Report and Order (Access Charge Order) on December 22, 1982. It was a mammoth document consisting of 376 paragraphs, six separate statements by commissioners, and seven appendices. Among its provisions:

> - [A] minimum flat rate monthly interstate charge ($2-Residence, $4-Business) [is] to be paid per line by each telephone subscriber. During a seven year transition period, the flat-rate subscriber charge would be increased so that it would eventually cover the total interstate allocation.
>
> - Access lines that are dedicated to interstate service (e.g., private line or WATS access line) will be charged at a rate to cover their costs. The maximum interstate charge for a local telephone subscriber can not exceed the dedicated access line charges.
>
> - A "Universal Service Fund" is established to assure the availability of telephone service in high cost and rural areas. The Commission deferred action on the

criteria for sizing and distributing the fund until it receives a recommendation from the Federal/State Joint Board in Docket CC 80-286.

- The discount for "less than equal access" as discussed in legislative proposals, the MFJ, and as it exists in ENFIA is converted to a premium access charge to be paid by AT&T. The surcharge would be phased out as improvements in access are made available.

- At the plan's inception the interexchange carriers would pay the lion's share of the interstate access costs. However, as the flat-rate subscriber access charge increases, the carrier charge would be reduced and eventually eliminated.

- An exchange carrier association would be established to collect and distribute certain portions of the access charges paid by the interexchange carriers. The association would also act as a filing agent and administrator of revenue pools at the option of association members.[30]

The Access Charge Plan had its detractors. Stakeholders immediately took aim at those features detrimental to their cause. The dollars involved were immense as some "$8.5 billion in interstate NTS exchange costs, an additional $2.5 billion in traffic sensitive costs, $4.3 billion in end user charges, and $1.4 billion in premium AT&T charges"[31] were targets for intervention. With stakes so high, it is no wonder that the stakeholders would succeed in continuing the debates and eventually would cause the FCC to modify the ACP and delay its implementation past the January 1, 1984, target date.

1.2. Policy in the Making

The ACP was, and continues to be, the FCC's vehicle for overseeing the transition of the interstate long distance market from a regulated monopoly to a competitive, multi-supplier industry undergoing not only technological and economic changes but political changes as well. New alliances were formed from the original camps of traditional industry

versus competitive entrants, yet even these alliances tended to vary with the issues, as stakeholders began forging their own agendas. So complex were these issues and so fractured was the political landscape, that the FCC was unable to marshal its support from these diverse groups of stakeholders: consumers, big-business users, small exchange carriers, Bell operating companies (BOCs), OCCs, and AT&T. That the implementation of the ACP was to coincide with the divestiture of the Bell System only heightened the confusion and anxiety over the major changes the industry was about to face. The stakeholders, in turn, formed strong political coalitions to protect their interests. The result was a successful effort by Congress, and, to some extent, by the state regulatory agencies, at delaying the ACP's implementation and at reshaping its substance.

The debates over access charges have continued ever since the release of the Docket 78-72 Notice of Inquiry in 1978. In reviewing those debates, this paper describes the influence of economic, regulatory, and political forces on public policy, and how that policy was used in developing access charge guidelines. The paper concentrates on the development of these issues -- what was important about them, to whom were they important, and why. The issues, themselves, have not remained static but have changed as the ACP has changed, vacillating between political expediency and hard-fought compromise. The paper traces the paths that these issues have taken, describes attempts at resolving them, and suggests for those that remain open as of this writing, June 1986, a framework for their resolution.

While chronicling the development of these issues, the paper examines the FCC's approach to policymaking, and in particular, how that

approach changed when the ACP appeared to be headed toward defeat. Perhaps because of the impending divestiture date, the ACP emerged in 1983 long on functionality and substantively complete, but short of the negotiated compromises necessary to achieve political saleability. After the ACP's implementation was delayed under threat of congressional override, the FCC sacrificed functional completeness for slow, measured modifications to the Plan, based on extensive proceedings and supported by hard data. What invariably emerges post-divestiture is a set of policy decisions that maintain the middle of the road between warring factions.

The paper focuses on the two prevailing issues of local loop cost recovery and non-discriminatory access pricing, as listed in Section 1.1.2, above. They are not the only issues (for example, the subject of special access with its own set of issues is not addressed here), but they are the umbrella to many subtending issues, whose linkage is discussed herein, and they dwarf other issues in terms of the dollars involved and the number of players whose interests are at stake.

The paper is organized into independent chapters, allowing readers with varying levels of expertise to concentrate on specific areas of interest. For the reader unfamiliar with access charge terminology, Chapter 2 briefly reviews access cost and rate characteristics and the jargon used to describe them. Beginning with a description of the local exchange network and its components, the chapter distinguishes between local loop plant and non-traffic sensitive (NTS) plant. While many forums, including this paper, use the terms interchangeably, the chapter demonstrates that the local loop is but a component, albeit a large component, of NTS plant.

Included in the discussion of the local exchange network is a description of the functional characterisitics of the alternative switching features, and of the distinction between premium and non-premium switching. The chapter goes on to describe how costs of the local exchange network are jurisdictionally separated into state and interstate operations, and how the ACP targets the latter for recovery via interstate access charges. Finally, Chapter 2 describes the administration of access charges, including measuring usage, tariffing rates, and sharing revenues. Each of these areas became a subject of controversy in the access charge debates.

Chapter 3 continues chronicling the Docket 78-72 proceedings, beginning with a discussion of the FCC's stated objectives of the ACP, contained in the Third Report and Order (1982). The chapter describes how the Commission's rulings on end-user charges for local loop cost recovery and premium charges to AT&T for what OCCs contended was superior access connection addressed the two prevailing issues identified earlier. However, continuing controversy over end-user charges and premium charges and/or discounts for non-premium access led to the FCC's delaying, under pressure from Congress, the implementation of the ACP. Subsequent FCC modifications to the Plan and the interruption of the transition to end-user charges cast a new pall of uncertainty over the industry. The chapter describes how this uncertainty launched a new set of controversies as stakeholders attempted to react to these changes. Local exchange carriers (LECs), claiming that they were seeking to minimize the threat of bypass brought about by the continued recovery of loop costs from usage-based charges, proposed alternative NTS recovery tariffs designed to ensure that

recovery. OCCs, citing continued AT&T competitive advantages, successfully petitioned the FCC to modify its interexchange carrier (IXC) selection process, but were unable to obtain additional concessions on the way non-premium access is measured and on how the discount for non-premium access would end.

Chapter 4 details the NTS cost recovery issue. Included is a discussion of the historical relationship between NTS costs and rates. At the turn of the century, that relationship was nebulous, as rates were determined on a "value of service" basis rather than on any cost causational one. But after regulatory jurisdictional battles brought consistency to cost accounting, culminating with the U. S. Supreme Court's Smith vs. Illinois Bell decision and the creation of the FCC by the Communications Act of 1934, the need to synchronize ratemaking with jurisdictional cost assignment became apparent. In 1947, the Separations Manual applied station-to-station cost allocation principles to interstate ratemaking. The chapter explores whether the flat-rate end-user charge, for the recovery of NTS costs, is based on principles resembling the board-to-board cost accounting that prevailed earlier in the century.

The chapter goes on to present the economic arguments underlying the debate over end-user charges and carrier access charges, including a discussion of the treatment of joint costs. The concept of "pooling" of costs creates the impression that some market segments are subsidizing others. The chapter discusses the implications of this perception as it relates to the National Exchange Carrier Association (NECA) carrier common line pool.

Chapter 4 concludes with a review of the alternative NTS recovery schemes filed by the LECs in late 1985 and early 1986. The uncertainty introduced by the deferral of end-user charges left an additional $2.5 billion in NTS costs to be recovered from IXCs, prompting the LECs to file these alternative NTS recovery schemes to minimize bypass of the local network. In 1986, the FCC issued guidelines for these alternative tariffs.

Chapter 5 analyzes the equality-of-interconnection controversy. What started out as an issue of price discrimination settled into a controversy over the definition of equal access and its role in determining the existence of a competitive market. Included is a discussion of the controversies surrounding the transition to an equal access environment and how equal access was used as the basis for phasing down the OCC non-premium discount. Particular attention is given to equal access for 800 service, as that promises to be a major competitive battleground in the late 1980s.

Finally, the paper closes with Chapter 6: Options for the Future. The chapter describes a possible framework for resolution of the NTS cost recovery issue. In 1987, the Joint Board will decide on whether it will recommend to the FCC further increases in flat-rate end-user charges. But the ramifications go far beyond that immediate recommendation. The industry will view it as an indication of FCC resolve to fully deload NTS costs from toll rates. LEC decisions to pursue alternative NTS recovery tariffs, potential congressional involvement, and future bypass decisions by large users all hinge on this decision. For equal access, the OCC discount for non-premium access ended on an end-office basis when the MFJ ordered equal access

for "conforming" offices completed by September 1986. While this mechanism for terminating the OCC discount closes a major controversial issue in the ACP, a new issue over 800 service access promises to be the battleground of the future.

The Postscript summarizes major developments between the June 1986 draft publication of this report and its final revision as of mid-1987.

2

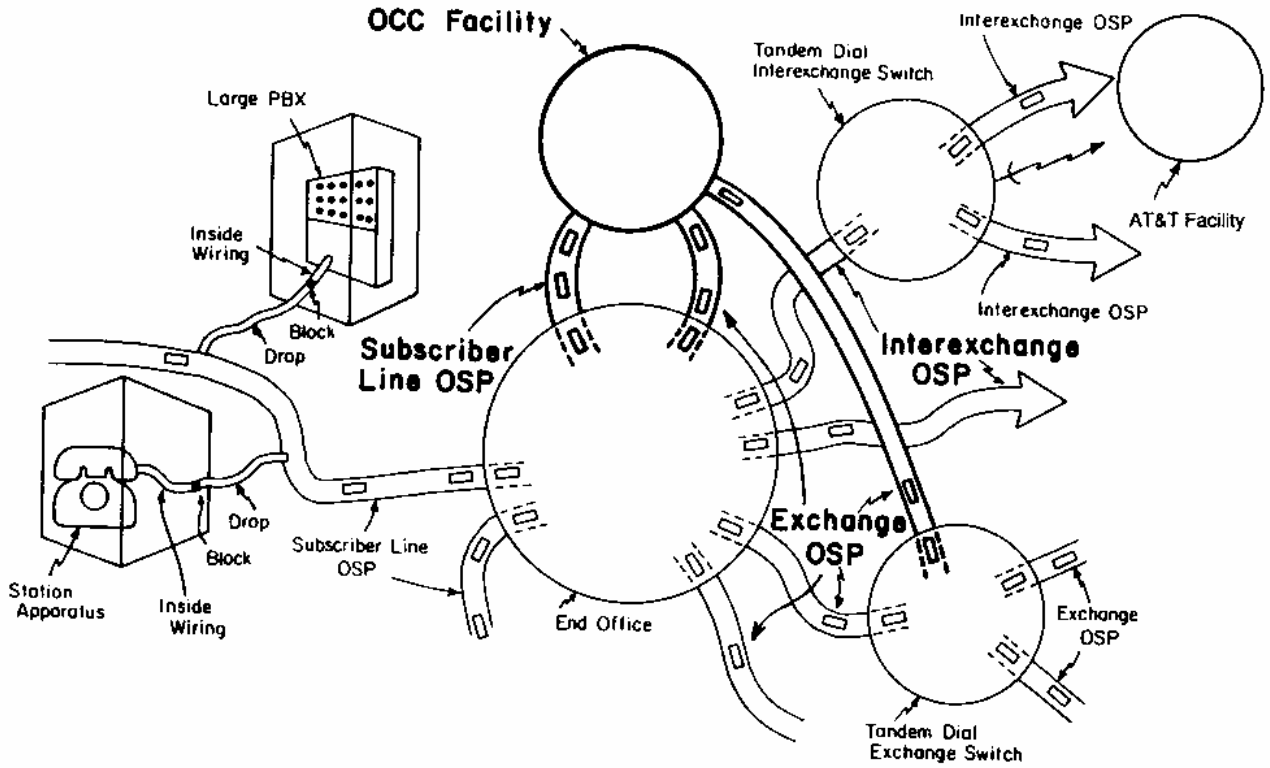
ACCESS COSTS AND RATES CHARACTERISICS

2.1. Local Exchange Network

2.1.1. Plant Associated with Provision of Access

The Access Charge Plan (ACP) defines access service as "includ[ing] services and facilities provided for the origination or termination of any interstate or foreign telecommunication that is subject to regulation . . . ."[1] While there is continuing debate about the level of access charges, or the amount of costs designated to be recovered through access charges, there is no such controversy over the nature of the plant used to provide access service. Thus, this plant is a good place to initiate an understanding of the controversial aspects of the ACP.

Figure 2-1 displays a typical layout of the facilities used by the local exchange carrier (LEC) in its provision of switched access service. The figure also includes symbols of interexchange carrier (IXC) facilities, both for AT&T and the other common carriers (OCCs). Similarly, the figure shows pictures of telephone equipment, both station apparatus and large PBX, and inside wiring, which may be customer owned, but, as will be shown later, are included here as their costs are still an important component of access charge revenue requirements. While this paper emphasizes switched access service, the focal point of the two controversial issues of local loop cost recovery and non-discriminatory access pricing, a close parallel for special access would be the facilities in Figure 2-1, minus the switching facilites.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 9.

Figure 2.1

Local Exchange Carrier Facilities
Used in the Provision of Switched Access Service

The facilities in Figure 2-1 may be described in terms of the functions performed by the plant involved.[2] However, the plant shown in the figure is not all-inclusive; it does not include land, buildings, furniture, and other investment items incidental to the provision of access service. A convenient way to describe the functional plant in the figure is to group it into three categories: station equipment, central office equipment, and outside plant.

Station equipment consists of station apparatus, large PBX, and inside wiring. The first two describe Uniform System of Accounts (USOA) accounts, but are commonly referred to as terminal equipment or customer

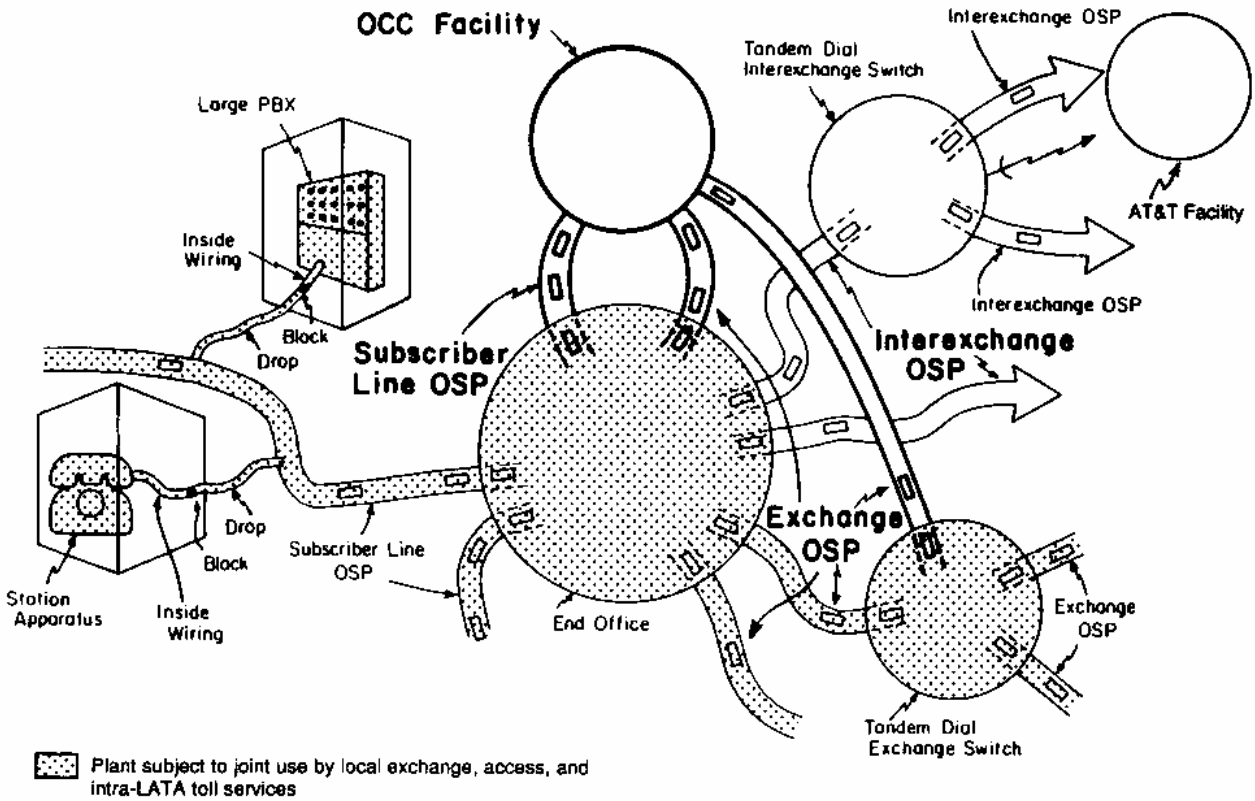
premises equipment (CPE). CPE consists of the instruments used to hook up to the network. Inside wiring refers to the plant that carries the messages or signals from the CPE to the entry point in the network. The importance of CPE and inside wiring to the access charge debates is diminishing as the FCC phases associated costs out of the regulated rate base.[3]

Central office equipment includes the facilities in Figure 2-1 referred to as end office, tandem dial exchange switch, tandem dial interexchange switch, and circuit equipment, represented by the small rectangles. This plant is necessary to enhance, modify, or switch a message from one part of the network to another. Within the end office, switches consist of local dial and manual switching equipment. Circuit equipment includes amplifiers, concentrators, equalizers, and multiplexers, which maintain or modify the quality of the signal.

The third category, outside plant (OSP), includes drops and blocks, subscriber line OSP, exchange OSP, and interexchange OSP, as labeled in Figure 2-1. Outside plant describes the part of the local network that transports a signal from one place to another.

The layout of Figure 2-1 provides a convenient way of understanding different aspects or components of access terminology. It is important to note that this plant is not for the exclusive use of access service; indeed, as Figure 2-2 points out, most of the plant is "jointly" used in that it provides access to interexchange carrier facilities, as well as local exchange service and local exchange carrier intra-LATA toll service. Part of that jointly used plant is the portion that has previously been referred to as the "local loop." As seen in Figure 2-3, and as Weinhaus and Oettinger described it, "in telephone industry

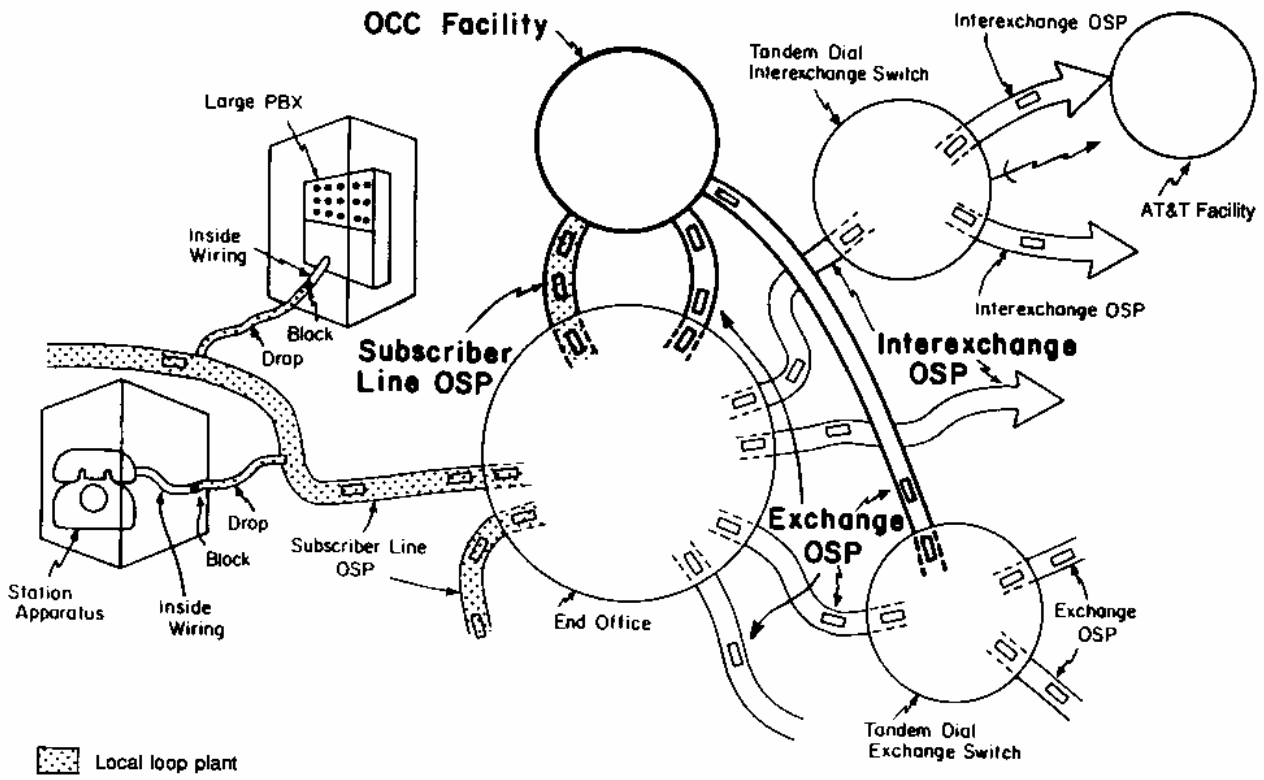
jargon, local loop generally refers to the subscriber line OSP and its associated circuit equipment, drops, and blocks."[4] In the access charge controversies, the allocation of costs for jointly used plant, and particularly for local loop plant, plays an instrumental role in determining the amount of costs that should be targeted for recovery from access charges and from whom they should be recovered. One subject of controversy is the extent to which the costs of plant that is jointly used by multiple services should be considered joint costs, subject to the special connotation surrounding the economic theory of joint costs. This subject will be explored in Chapter 4.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1988 Program on Information Resources Policy, Harvard University, figure 9.

Figure 2-2

Identifying Jointly Used Plant



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 9.

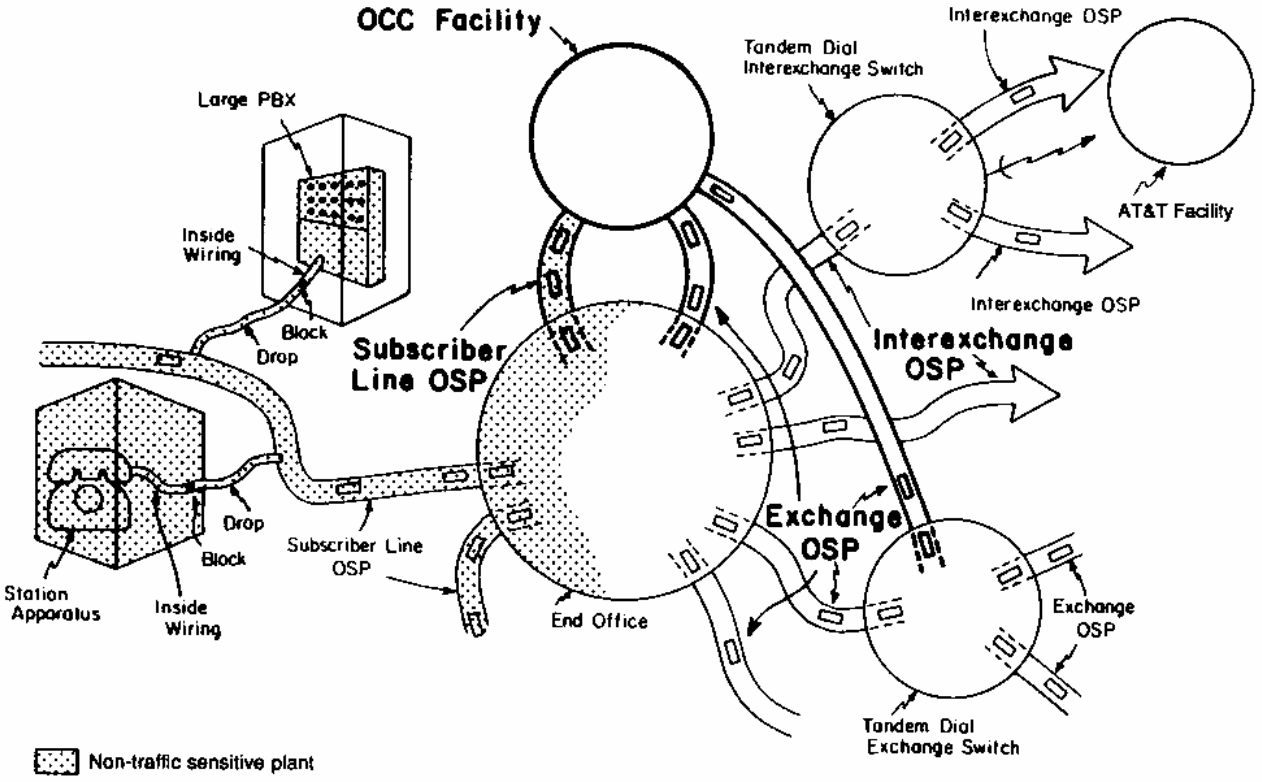
Figure 2-3

Identifying Local Loop Plant

2.1.2. Non-Traffic Sensitive/Traffic-Sensitive Plant

Non-traffic sensitive (NTS) plant, as the name implies, is plant whose costs are virtually insensitive to the amount of use it receives. In other words, once the facilities are installed, the costs are essentially fixed and do not vary with the amount of local or toll usage.[5] As seen in Figure 2-4, plant generally considered to be NTS consists of station equipment (CPE and inside wiring), drops and blocks, subscriber line OSP and its corresponding circuit equipment, and the termination or line-side connection inside the local end office. The plant beyond the local end office line-side termination includes the

remainder of the local end office, other switching offices, exchange and interexchange trunks, and transmission facilities. These are considered traffic sensitive (TS) in the sense that their costs bear a close relationship to usage.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 9.

Figure 2-4

Identifying Non-Traffic Sensitive Plant

The terminology of NTS plant has been rather loosely applied during the access charge debates. For example, the terms "local loop," "subscriber line," and "non-traffic sensitive" are typically used interchangeably. As a comparison of Figures 2-3 and 2-4 shows, they are not identical. NTS plant includes more than the loop or subscriber line.

However, with the deregulation of station equipment, a growing amount of that plant is becoming customer provided, and thus its costs are becoming less significant. In addition, the portion of NTS costs consisting of the non-traffic sensitive end office line-side connection costs (the shaded portion of the end office in Figure 2-4) is relatively small.[6] Thus in the aggregate the distinction between the three terms is of minor significance. But each represents a different combination of plant.

Indeed, the distinction between NTS and TS is not clearcut. As explained by Johnson:

> In the long run, some of the so-called [NTS] costs are actually variable in the economic sense: as a community expands, more NTS costs must be incurred to meet the increasing demand for telephone service. Moreover, usage patterns can affect the level of these costs . . . . Conversely, a large portion of the so-called [TS] plant and equipment is actually fixed in the short run. The switching and trunking facilities in this category are engineered to meet peak demand; thus their cost rises as the level of peak demand increases. However, relatively few costs in this category actually vary with usage in the very short run. That is, once the facilities are in place to meet a certain level of peak demand, the costs are not significantly affected by day-to-day fluctuations.[7]

Thus the distinction between NTS and TS does not necessarily correspond to the economic distinction between fixed and variable costs. However, as will be seen later in this chapter, the NTS/TS distinction reflects a differential in jurisdictional cost assignment, and thus has important political and regulatory, as well as economic, ramifications for access charges.

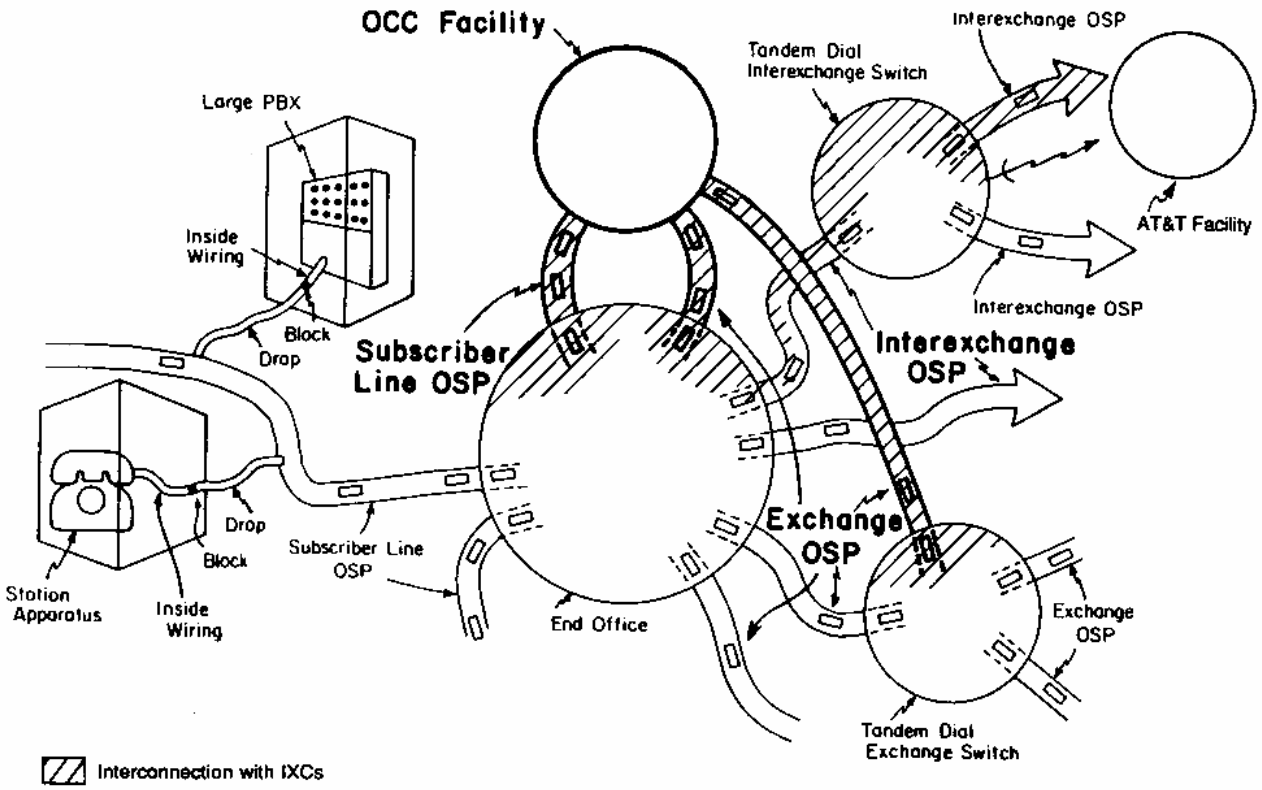
Another example of confusion is the association of NTS with jointly used plant. As a comparison between Figures 2-2 and 2-4 suggests, jointly used plant consists of far more than NTS plant; it includes TS

plant as well. An additional qualifier, "non-directly allocable" must be applied to jointly used plant in order to make it synonymous with NTS. That is because the costs of TS plant, to the extent they are usage related, can be assigned to the various services that utilize the plant proportional to their relative usage of the plant. No such basis exists with NTS costs since they are not usage related. Thus, only jointly used plant with costs not allocable directly to the various services using the plant is non-traffic sensitive.

NTS costs amounted to some $25.5 billion in 1983.[8] While comparable data for TS costs do not exist, a reasonable approximation is $10 billion for that year.[9]

2.1.3. Feature Groups A,B,C,D

Figure 2-5 illustrates a typical way that the local exchange can interconnect with interexchange carrier facilities. Each interconnection represents a different arrangement of switching plant and, correspondingly, a different set of switching features, called feature groups. For example, the arrow pointing to the AT&T facility represents the traditional pre-divestiture access connection to an end office through a tandem dial switch or class 4 toll office.[10] In reality, both switches may be colocated, or, even further, one switch may perform both interexchange and exchange switching functions.[11] But Figure 2-5 represents the most common form of interconnection. Note that only a portion of the tandem dial interexchange switch is shaded, signifying that the switch is used for both interconnection with AT&T and the provision of intra-LATA toll service.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 9.

Figure 2-5

Typical Interconnection with
Interexchange Carrier Facilities

While ownership of some of the plant may have changed hands as a result of divestiture, for the most part, the nature of the interconnection continued unchanged. The switching features, called Feature Group C (FGC), are provided as trunk-side switching through the use of end-office or access tandem switch trunk equipment. No access code is required for FGC switching. The end user dials directly via 1+ dialing (1+NPA+NNX-XXXX, where NPA stands for the area code, and NNX stands for the exchange code). FGC access provides automatic number identification (ANI) and answer supervision. According to the FCC, "With ANI, AT&T can

identify the line from which a call is placed (and to which it will usually be billed) while answer supervision tells AT&T when the called party has answered and when that party hangs up. Together ANI and answer supervision enable AT&T to bill its customers accurately for the calls they successfully complete."[12]

Feature Groups A and B (FGA and FGB respectively) are post-divestiture remnants of the ENFIA interconnection arrangements.[13] FGA, represented in Figure 2-5 by the subscriber line OSP between the end office and the OCC facility, provides a line-side termination at the end office, and is used for FX service or MTS/WATS-type services. At the originating end of a call, the OCC is given a seven-digit local number of the form NXX-XXXX, which the end user must dial before dialing the called number, and a personal identification number (PIN) to identify the appropriate billing information. With the absence of ANI, the end user must have a phone with tone signalling to provide this information.

FGB is a trunk-side switching arrangement either directly to the end office (ENFIA B) or via an access tandem switch (ENFIA C). In Figure 2-5, these are represented by the shaded exchange OSP connecting to the OCC facility. FGB is limited to electronic switching end offices, which are accessed via a uniform code of the form 950-10XX. Equipped with ANI and answer supervision, FGB provides for access to the OCC with a rotary telephone.

The extra dialing required of FGA users and the limited availability of FGB were among the OCCs' reasons for considering these arrangements "inferior," and were also why equality of interconnection was such an important issue during the access charge debates. Said the FCC:

> Although we recognize that there are some differences between OCC access arrangements that are described as Feature Groups A and B in the National Exchange Carrier Association tariffs, both of these options constitute inferior access and we have no basis for determining a different differential for these feature groups.[14]

The Modification of Final Judgment (MFJ)[15] ordered the Bell operating companies (BOCs) to provide equal access[16] to customers in their serving areas by September 1986. In its Docket 78-72, Phase III decision,[17] the FCC developed rules for extending equal access interconnection requirements to the independent telephone companies. Equal access has generally been referred to as Feature Group D (FGD). When an end office has been converted, carriers that order FGD will receive the same features that AT&T currently receives with FGC; indeed, FGC is no longer provided once FGD is available.[18] These features, including 1+ dialing, are available provided an end user pre-selects an interexchange carrier (IXC), either AT&T or an OCC. Alternatively, the end user may dial 10XXX to access the IXC prior to completing the call. Once FGD is universally available, the configuration of Figure 2-5 will be irrelevant; there will be no distinction between OCC and AT&T access service. However, as will be discussed in Chapter 5, the OCCs contend that even with FGD their access is inferior to that provided AT&T for 800 service and for areas where tandem switches remain to be converted.

2.2. Jurisdictional Separations

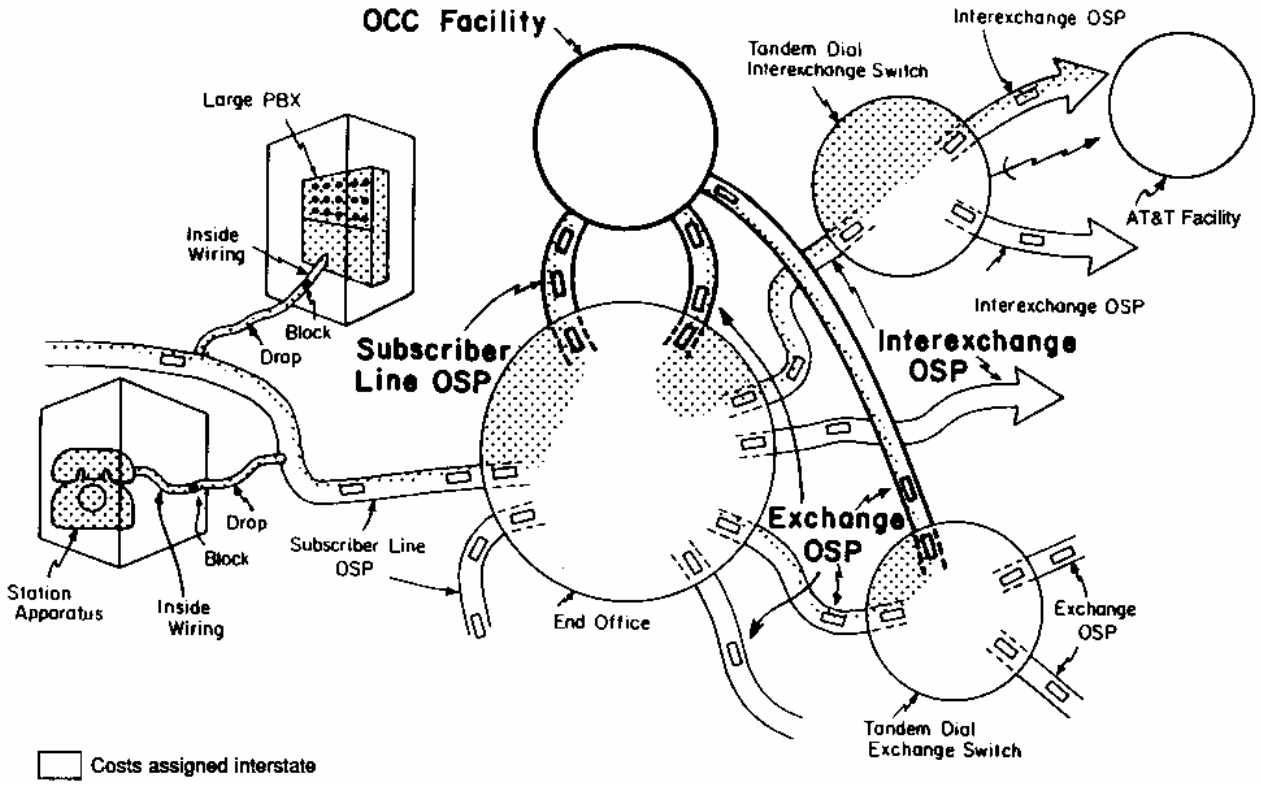
Under the Communications Act of 1934,[19] the FCC was empowered with regulatory authority over interstate telephone services. Part of this authority includes the determination that interstate rates are just and reasonable. Over the next 20 years, the FCC formalized a set of guidelines that facilitated making this determination. Known as

Jurisdictional Separations Procedures (the Separations Manual) or Part 67 Rules,[20] the guidelines consist of rules for dividing costs between state and federal jurisdictions. Those costs assigned to the federal jurisdiction are matched against revenues from interstate services to ensure that companies are not deriving an "unreasonable" rate of return from their interstate operations. The basis for determining the reasonability of interstate access charges follows this procedure.

The model used by the Separations Manual is the station-to-station method of accounting. In station-to-station accounting, a long distance toll call is thought of as going from one telephone station to another.[20a] Thus, all costs between stations must be identified and assigned to the respective jurisdictions. An alternative model, the board-to-board model, breaks the call into components. According to Peter Temin and Geoffrey Peters, "The parts between the individual stations and their local exchanges (boards) are considered local; the long-distance call goes only between the local exchanges, that is, from board to board."[20b] The relationship of these alternative models to the NTS recovery issue will be discussed in Chapter 4.

Figure 2-6 displays the jurisdictional assignment of the costs of the local exchange company's plant, with the shaded portion targeted to be recovered by interstate rates. One apparent contradiction is that terminal equipment, which is part of plant used jointly for inter- and intrastate services, is partially assigned to interstate as shown in the figure. This assignment is due to the FCC's decision, in light of the detariffing of CPE in Computer Inquiry II, to mitigate the impact that detariffing would have on local rates by assigning a base amount of embedded CPE costs to the interstate jurisdiction, and then phasing down

those costs over a five-year period.[21] Inside wiring is also a special circumstance in that the FCC has provided for the expensing of new inside wiring costs and the amortization of the embedded (capitalized) inside wiring costs over time.[22] Thus, while Figure 2-6 displays the direct assignment of a portion of terminal equipment costs to the interstate jurisdiction, in reality, CPE costs reflect a decreasing share of the total assigned costs, making the shaded portion of the figure not representative of the dollars involved.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 9.

Figure 2-6

Jurisdictional Assignment of Costs

2.2.1. SPF vs. SLU

The Part 67 Rules also indicate that the shaded portion of Figure 2-6 is not representative of the amount of costs assigned to the interstate jurisdiction. Under these rules, NTS costs, which by definition are non-directly allocable, were until 1982 assigned as a function of relative use. However, here the NTS costs are assigned on a basis that is disproportional to that which can be explained by direct measures of relative use. One such direct measure, subscriber line use (SLU), reflects the minutes of use of NTS plant separately by exchange services, intrastate toll services, and interstate toll services. Interstate SLU was 8.5% of total SLU in 1983.[23] While this represents a growth from 8.1% in 1981,[24] the percentage of dollars of NTS assigned to interstate is far greater. That is because the Part 67 Rules use a subscriber plant factor or SPF to assign NTS costs. SPF is a multiple of SLU in that the dollars assigned to interstate are a multiple of that which is due to SLU.[25] This multiplier effect resulted in an average SPF of 28.1% in 1983,[26] or 3.3 times the 8.5% SLU. While the use of SLU is an arbitrary determinant of relative NTS usage -- other determinants are messages or miles[27] -- the point is that SPF provides for a greater assignment of NTS costs to interstate than can be accounted for by interstate SLU.

The multiplier effect of SPF is not uniform, but varies by local exchange company and state. That is because each multiplier is a function of the composite station rate (CSR) ratio, a measure of the relative distance of toll calls.[28] Thus, the greater the relative distance of long distance calls within a company/state combination, the greater that company's CSR ratio for that state, and thus the greater

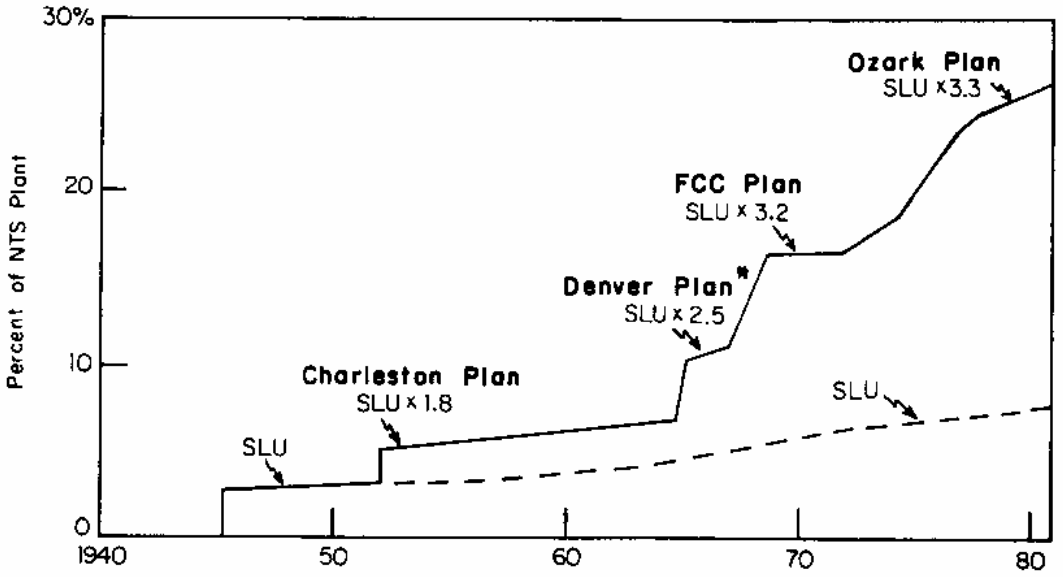
its SPF. SLU and CSR lead to a disproportionate assignment of NTS costs. For example, two companies, A and B, may have similar NTS costs, but A may have a higher percentage of those costs assigned to interstate simply because it has a higher interstate SLU. Further, even if their SLUs are similar, A may still have a higher SPF simply because it has a higher CSR ratio.*

The importance of a high SPF to a company's finances rests with its being the determinant of interstate NTS cost assignment; the more that costs are assigned to interstate and recovered from interstate rates, the less they need to be recovered from local rates. Given the widespread variability of SLU and CSR, and therefore SPF, nationwide, the relative portion of NTS costs covered by interstate revenues varies dramatically across the country. As will be seen in Chapter 4, this disproportionate recovery of NTS costs is a controversial aspect of the NTS recovery issue facing the FCC and its ACP.

To the extent that interstate SLU has been growing over time, through the multiplier effect, SPF and interstate NTS cost allocations have been growing more dramatically. Figure 2-7 shows the increases to the interstate NTS cost assignment, and the multiplier effect on SLU, under successive modifications to the separations procedures. This increase to approximately 30% by 1980 prompted the concerns about customers' bypassing the local network with services not encumbered by such a heavy NTS burden.[29] The FCC responded by creating a Joint Board to review and recommend the modification to the existing separations procedures. The Joint Board recommended, and the FCC subsequently implemented, a freezing of the individual SPFs at their 1981 average

*For examples of the application of SLU and CSR, see Carol L. Weinhaus and Mark L. Lemler, Evaluating Proposals Changing the Carrier Common Line Pool. Program on Information Resources Policy, Harvard Univ., Cambridge, MA, January 1987, P-87-1.

level and a subsequent phase-down to a 25% flat allocator over an eight-year period, beginning in 1986.[30] While this action addressed the concerns over rising interstate NTS cost allocation, the slow transition to a flat allocator did not ameliorate the controversy associated with the disproportionate recovery of NTS costs mentioned earlier.



*Weighting factor for Denver Plan varied from year to year; average factor for year shown.

Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 27.

Figure 2-7

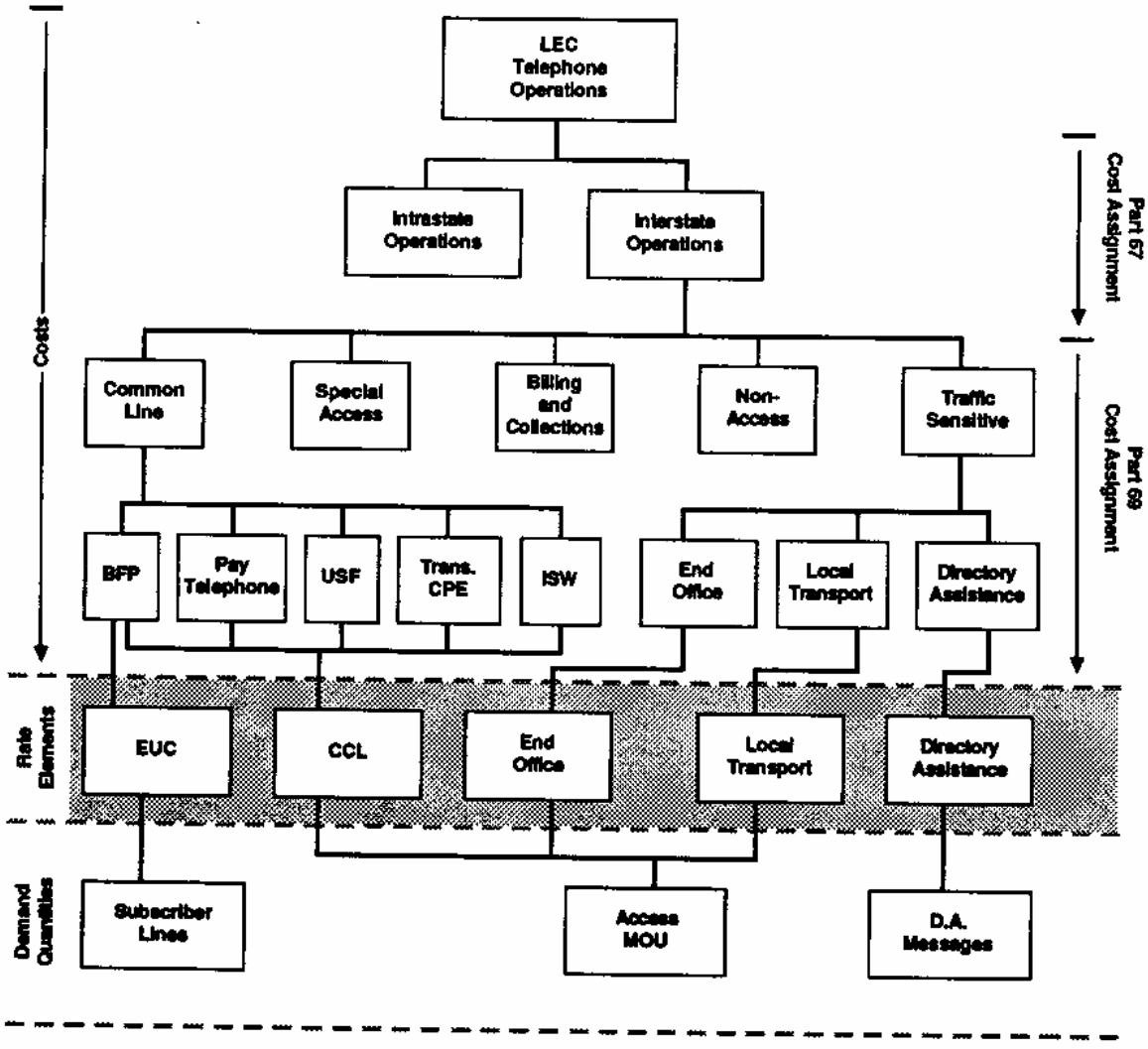
Increase in SLU v. Increase
in Percent of Federal NTS Cost Allocation

In contrast to NTS cost assignment, the assignment of TS costs more closely follows measurements of relative use. For switching equipment, relative minutes of use provide the basis for allocation, while message-minute miles are used for the more distance-sensitive transport equipment.[31] The one exception to this rule is the assignment of the

traffic-sensitive component of the separations category Local Dial Switching - Category 6. Costs for this equipment are assigned as a function of relative dial equipment minutes (DEMs), which contain a toll weighting factor (TWF) reflecting the difference in average cost per toll minute of use as compared to the average cost per exchange minute of use. On this basis, the interstate jurisdiction, which primarily consists of toll minutes, receives a relatively higher percentage of local dial switching costs.

2.2.2. Part 69 Elements

The ACP is also referred to as Part 69 of Chapter I of Title 47 of the Code of Federal Regulations. While the Part 67 (Separations Manual) Rules dictate how portions of LEC costs are assigned to the interstate jurisdiction, the Part 69 Rules further disaggregate the interstate costs to individual access elements. This subsection describes these Part 69 cost elements and the derivation of the switched access rate elements. Figure 2-8 displays this derivation of switched access rate elements from their cost and demand components.



Source: Mark Lemler

Figure 2-8

Derivation of Access Charge (Part 69) Rate Elements

For switched access, the relevant cost elements are categorized into two groups: NTS and TS. The NTS costs assigned interstate (with the exception of the line-side connection to the end office) via Part 67, are referred to as common line costs in Part 69. Common line consists of local loop plant (Figure 2-3), also referred to as the base

factor portion (BFP); transitional CPE;[32] inside wiring (ISW);[33] pay telephone;[34] and the Universal Service Fund (USF).[35]

Traffic-sensitive elements are divided into three groups: end office, transport, and directory assistance. End office is further split into three elements: line termination, local dial switching, and intercept (not shown in Figure 2-8). The line termination element provides an interesting paradox in that it is considered a traffic-sensitive element for recovery purposes, but it is comprised of costs from non-traffic sensitive plant, the line-side connection to the end office. As explained by the FCC:

> The allocation of NTS Central Office Equipment [line-side termination costs to a traffic-sensitive element] represents an apparent inconsistency with the approach we have taken to recover almost all other non-traffic sensitive plant. We believe, however, that this apparent inconsistency is resolved by a closer examination of the facilities involved.
>
> Non-traffic sensitive facilities the costs of which are to be recovered through end-user charges are all dedicated to particular subscribers or, in the case of party lines, groups of subscribers. (The only exception is pay phone service, the costs of which are apportioned on a usage basis).
>
> As compared to older electro-mechanical facilities, a far larger fraction of modern central office facilities has been classified as non-traffic sensitive. Such modern facilities can offer subscribers many more or improved service options than could the facilities that they replace. Not all subscribers require or even desire such additional services. It does not seem appropriate, therefore, to treat these facilities as if they were [targeted for recovery by end-user charges].[36]

Local switching costs that are assigned to interstate are decomposed into two groups. LS 1 represents the costs associated with FGA and FGB switching and LS 2 represents the costs associated with FGC and FGD switching.

Transport consists of two elements. (The two elements are shown combined under local transport in Figure 2-8.) Dedicated transport refers to the costs of plant that carries only one IXC's traffic to a switch within the area served by the local carrier. If this switch is a tandem, then the plant required to carry the traffic from the tandem to the end office is considered "common" transport plant, i.e., common to multiple IXC usage. The remaining Part 69 elements are special access, billing, and non-access costs -- for example, the costs associated with the provision of interstate intra-exchange service.[37]

Figure 2-8 displays the derivation of switched access rate elements. In general, a tariff rate element is developed by dividing the projected costs for that element by the corresponding projected demand. As seen from the figure, only a portion of common line costs, indeed, only a portion of the BFP component of common line costs, is recovered from end users via flat-rated end-user charges (EUC). (A charge per subscriber line is known as a non-usage based or flat-rate charge.) Another portion of common line costs is recovered from surcharges to special access rates (not shown in Figure 2-8). These surcharges are applied to offset common line costs as an estimate of the "leaky" PBX phenomenon (see Chapter 3, Section 3.2.2). The remaining common line costs are recovered via the carrier common line (CCL) rate element, based on access minutes of use (MOU), and charged to IXCs. That only a portion of common line, or NTS costs, are recovered from end users, and that much of the NTS costs are recovered from usage-based charges are controversial subjects of the NTS recovery issue, to which Chapter 4 of this paper is devoted.

2.3. Access Charge Administration

2.3.1. Unit of Measurement

Except for the portion of common line costs recovered from end users on a flat-rate basis, or from special access surcharges, the bulk of switched access costs are recovered from IXCs on the basis of access minutes of use. The FCC's definition of "access minutes" is:

> On the originating end of an interstate call, access minutes of use charged to an interexchange carrier shall begin when the originating end user's call is acknowledged as received by the interexchange carrier's facility in that exchange area. On the terminating end of an interstate call, access minutes of use charged to the interexchange carrier shall begin when the call is received by the called end user and thus completed end-to-end. At each end, access minutes will terminate when the calling or called party hangs up, whichever event is first recognized by the exchange facilities at that end.[42]

A fundamental difference between access minutes and conversation minutes, which was the basis for billing ENFIA connections prior to divestiture, is that the former is similar to holding time -- minutes are recorded at the originating end regardless of when or if the called party receives the call. SLU minutes are also holding-time minutes. But SLU is measured as soon as the end office at the originating end acknowledges the signal, while access minutes are not counted until the signal is acknowledged at the IXC's facility.

The unit of measurement has had its share of controversy. Access minutes are measured by recording devices located at the originating end offices. Terminating usage is therefore imputed from conversation minute data, with the knowledge of the terminating location. These terminating-to-originating factors are applied to the measured originating access minutes to estimate terminating minutes. While FGD

presumably measures terminating usage, this imputation is used whenever end offices cannot directly measure usage. Thus, during the early days of the ACP implementation, prior to the FGD conversion, approximately half of the access costs were billed on estimated data. The influence this had on the month-to-month volatility of access charges has never been fully ascertained.

Measurement of usage became a source of controversy when it related to the differential between premium (AT&T) and non-premium (OCC) access. (Chapters 3 and 5 will further discuss the rate differential.) In its Second Reconsideration Order (1984) the FCC decided that an ENFIA-related per-line, flat-rate, non-premium access charge be continued because a change from per-line ENFIA charges to usage-based access charges would have resulted in an abrupt cost increase for OCCs with above-average usage.[43] A factor of 9000 minutes per line was chosen as representative of average OCC usage in the calculation of per-line charges. Reacting to petitions that this usage surrogate would provide an entry barrier to new OCCs with lower per-line usage, the Commission decided to establish a usage-based rate structure on all non-premium access services as of January 1, 1986.[44] To the extent that some OCCs were ordering the usage-rated FX FGA access for their MTS and WATS-type services (also known as the FX loophole), the FCC allowed that "usage-based FX lines as an alternative to flat-rate FGA connections [be] continue[d] in effect until the flat-rate structure is eliminated."[45] However, in offices without usage measurement capability, the OCCs were allowed to use a smaller surrogate factor of 3080 minutes per line as the basis for their charges.

On June 24, 1985, NECA filed revisions to its tariff requiring the higher 9000-minute surrogate if OCCs were ordering FX FGA for resale of MTS and WATS-type services, from offices without measurement capability. Their justification for this two-tiered surrogate was that the higher surrogate was more representative of the usage characteristics of resale than the lower surrogate. Certain OCCs (ATE, Comtel, Econocom, TeleCommunications, and Comput-A-Call) petitioned the FCC for rejection of the revision, claiming it would "negate the benefit a small OCC obtains by ordering usage-sensitive FX FGA and reselling it to form an MTS and WATS equivalent service, at least in those situations where measurement capability does not exist."[46] The FCC rejected the petition claiming "the lower 3080 minute surrogate was calculated exclusively on the basis of non-OCC usage. Allowing OCCs to be billed according to this low FX measurement surrogate would, therefore, produce an anomalous result, albeit one of minor financial proportions."[47]

Another controversy related to usage measurement was over the jurisdictional reporting of OCC traffic. Recall that prior to equal access conversion, an OCC obtains access via FGA or FGB. Since FGA does not come with automatic number identification (ANI), nor is it provided to FGB in end offices where measurement is not made, a LEC cannot ascertain the distinction between interstate and intrastate minutes, even if it can measure total minutes by metering. On September 7, 1984, MCI filed a petition with the FCC for declaratory relief on the allocation of traffic between interstate and intrastate jurisdictions for the purpose of computing access charges to be paid by the OCCs. While the FCC denied MCI's request for federal preemption, it did form a joint board to recommend appropriate jurisdictional reporting procedures.[48]

During the interim, it proposed an entry/exit measurement approach, whereby all FGA traffic that enters an OCC's network in the same state as the called station is considered intrastate, and the remaining FGA traffic, interstate.

2.3.2. The Tariff Process

Interstate access rates are tariffed under federal regulation by the FCC. The rules for filing tariffs are found in Part 61 of the FCC's Rules and Regulations. Specifically, Section 61.38 prescribes that supporting economic data include:

> (i) For changed matter, a cost of service study for all elements of costs for the most recent 12-month period; and for changed and new matter, a study containing a projection of costs for at least a one-year period from the date of the filing of the tariff matter; and
> (ii) Estimates of the effect of the changed or new matter upon the traffic and revenues from the service to which the changed or new matter applies . . . . Estimates must include the projected effects on the traffic and revenue data for a one year period from the date of the filing of the changed or new matter.[49]

Since the "changed matter" in this case consists of the access rate elements, each LEC must base its filed rates on the projection of each element's cost divided by a projection of the demand for each element, including the price-elastic effects on demand due to the change itself. In addition to suffering from the technical complexities of demand analysis and cost-offset analysis, the rates are predicated on forecasted data, and all forecasts are subject to error.

This forecast error translates to a financial "risk" that the carrier undertakes to recover its costs. To the extent that forecasted demand fails to materialize, it jeopardizes the firm's ability to meet its revenue requirements. This is especially true for NTS revenue

requirements where, by definition, the costs are not sensitive to demand.

With the CCL, the risk of recovering NTS revenue requirements is shared between the LECs and the IXCs. Under the usage-sensitive recovery mechanism, the IXC's NTS payments are proportionate to its minutes of use. If the projected demand fails to materialize, the IXC will face a revenue shortfall, but its NTS payments to the LECs will be proportionately lower, i.e., the LECs also face a revenue shortfall. This risk-sharing mechanism becomes a subject of controversy under the alternative NTS recovery proposals discussed in Chapter 4.

The extent of the risk sharing, under the present scheme, is a function of the equality of the forecasted demand used in setting LEC and IXC rates. To the extent that there is perfect sharing of information between LEC and IXC, then both sets of rates will be based on the same information, and the risk of meeting that demand will be shared. But such a perfect sharing of information doesn't exist in the post-divestiture world, if indeed it ever existed.

The tariff review process and the extensive cost support requirements under Section 61.38 are designed to minimize the incentive for carriers to utilize unrealistic forecasted demand, by providing a forum for introducing objective analysis. The LEC has the incentive to forecast "low" demand, and therefore "high" unit access cost, in the expectation that actual demand will exceed expectations and revenues will exceed revenue requirements. Conversely the IXC would like access rates based on optimistic forecasts to keep the rates relatively low. Thus, if actual demand underruns forecasts, access costs will be proportionately lower than revenues. This process puts the LECs in the

curious position of having to forecast IXC business and then having to defend those forecasts to the IXCs, the FCC, and other tariff intervenors in the tariff review.

This process is further complicated when the IXC changes its rates. If there is significant demand stimulation associated with the rate change, the IXC faces a paradox of sharing its forecasts with the LECs in anticipation of lowering access rates, but perhaps revealing proprietary information about its market and market share. AT&T is the only IXC required to file interstate tariffs with the FCC,[50] but the Commission is faced with the responsibility of ensuring that AT&T's forecasts of the demand for its services are consistent with the forecasted demand used by the LECs to support their access filings. It is a process that involves significant resources of all parties involved.

2.3.3. Revenue Pools

Pooling of costs to create a uniform charge results in the sharing of revenues among carriers with different costs. The ACP created a mandatory pool of revenues from the nationwide carrier common line (CCL) rate element:

> The Carrier Common Line element was designed in part to mitigate the effects that unlimited deaveraging would produce. Therefore we believe it is essential to recover those charges through interexchange carrier assessments that are computed on a uniform nationwide basis and to create a pool arrangement for the distribution of such revenues.[51]

In addition, the Commission allowed for the existence of pools for access elements other than the CCL element (traffic sensitive, end-user charges, and end-user billing) on a voluntary basis for those carriers desiring to participate in pooling their costs.

The ACP also provided for the creation of an intra-industry association of exchange carriers to prepare tariffs on behalf of the participating carriers and to compute the distributions that each participant is entitled to receive from the pool.[52] That function, administered by AT&T before divestiture, was taken over by the National Exchange Carrier Association (NECA) upon the divestiture of the Bell System.

The mechanism that NECA uses for compensating individual carriers is based on the pre-divestiture settlements partnership model.[53] For the CCL pool, that model recognizes that costs assigned to the interstate jurisdiction are a function of SPF. This mechanism has come under attack because of the implied subsidization of companies with high NTS costs and/or high SPFs by companies with low NTS costs and/or low SPFs.[54] This controversy, which will be discussed in depth in Chapter 4, is but one aspect of the NTS cost recovery issue.

3

DIVESTITURE AND THE IMPLEMENTATION OF THE ACCESS CHARGE PLAN

The FCC's Access Charge Order (1982) was written against a background filled with controversy. OCCs sought to maintain their discounted rates for access at ENFIA levels, at least until the MFJ-mandated equal access was available. AT&T, soon to be divested of the BOCs, sought to establish end-user charges for NTS cost recovery, as a prelude to lowering its interstate long distance rates in the face of increasing competition. Lowered long distance rates were also a goal of large business users; technology had progressed to the point that bypass of the local network was becoming a more competitive alternative, and they were prepared to exercise that option in the absence of reductions in toll rates. State PUCs and consumer groups, already faced with, for example, higher local rates from FCC capital recovery decisions,[3] were prepared to do battle against further increases in the form of end-user charges.

The debates over access charges did not end with the Access Charge Order (1982); indeed, they were heightened as the date of divestiture approached, bringing with it additional uncertainty to the industry. The failure of the FCC to rally widespread support for the compromises contained in the ACP ultimately led to its demise under pressure from Congress. This chapter chronicles the events that led to that episode and the subsequent activities of "putting the pieces back together." The reshaping of the ACP led to additional controversies, the debates of which were to continue well beyond its implementation.

3.1. The Access Charge Order

3.1.1. Four Stated Policy Objectives

Curiously, it was not until the First Reconsideration Order (1983)[1] that the FCC formally listed a set of policy objectives for the ACP, although they were articulated in the body of the Access Charge Order (1982). However, it is clear that they charted the path that the Docket 78-72 proceedings had taken up to that point, and were to remain a reference point for future proceedings. Thus, some background on these objectives may be worthwhile here.

The four primary stated objectives are:

1) Elimination of unreasonable discrimination and undue preferences among rates for interstate services. As stated in Chapter 1, an initial area of investigation in Docket 78-72 was the determination of appropriate compensation for local exchange facilities by MTS-WATS type services such as Execunet. While this investigation was expanded to include compensation by private line and FX services, the basic issue was superseded by the MFJ. Appendix B of the MFJ states that access tariffs must meet the following criteria:

- that they provide unbundled schedules of charges for all exchange access services, including those provided to AT&T;
- that they discriminate against no carrier or other customer;
- that they require interexchange carriers to pay only for the type of access they use (i.e., no "take it or leave it" bundling of services);
- that their charge for each type of exchange access must be cost justified.[2]

2) Efficient use of the local network. Recall that in the Second Supplemental Notice (1980), the FCC expressed the concern that with interstate NTS costs being solely recovered from MTS and WATS rates, the increasing use of private lines might be reflecting an effort to avoid that contribution.[3] Thus, from a network standpoint, the use of private lines may be inefficient compared with the use of the public switched network (PSN). However, when the FCC, in that notice, suggested a usage cost allocation of NTS costs among all services in order to load more NTS costs to private lines, commenters noted that the higher per-line usage of private lines would lead to an NTS cost assignment that would greatly exceed the actual costs of the private line loops. This led the FCC, in its Fourth Supplemental Notice (1982), to propose flat-rate charges as an alternative to usage-based charges for NTS cost recovery.[4]

3) Prevention of uneconomic bypass. First, some definitions. Bypass refers to the avoidance of the PSN or switched access facilities. If the bypass is achieved via a direct connection from the end user's location to the IXC utilizing a LEC-provided special access line, it is called "service bypass". If the direct connection, provided by the IXC, end user, or a third party, avoids using LEC facilities altogether, the bypass is called "facility bypass". "Total bypass" refers to the end user's avoidance of both the LEC's and IXC's facilities by constructing his own totally private network.[5] When the choice of a bypass alternative is based on the relative costs of providing the alternative access, then the bypass is "economic". However, to the extent that switched access, encumbered with the additional NTS loadings in its prices, becomes less attractive for levels of usage where it is more efficient, then the choice of a bypass alternative is "uneconomic".

Each of the service, facility, and total bypass alternatives may be uneconomic at different usage levels.

This objective is related to the previous one. Said the FCC:

> The bypass phenomenon that we discussed in the Fourth Supplemental Notice (1982) can be viewed as a network utilization problem. Diversion of traffic to bypass facilities that are in fact more costly than the access facilities provided by the local exchange telephone companies obviously would not promote efficient utilization of telecommunications facilities. Therefore we concluded that discouraging uneconomic bypass must be one of the criteria for the design of an access plan.[6]

4) Preservation of universal service. The FCC defined this objective as "avoiding actions that would cause a significant number of local exchange service subscribers to cancel that service."[7] It noted that a customer's decision to subscribe to local exchange service was naturally affected by prices for those services accessed through the terminal equipment. Thus any changes to rate structure resulting from modifications to NTS cost recovery must be weighed against the potential of customers dropping off the network.

3.1.2. Provisions of Third Report and Order (1982)

Two general and related conditions underlie the initial ACP's provisions. One is that the four policy objectives not only influence each other but may indeed even be antithetical to one another. Through the Fourth Supplemental Notice (1982) the FCC had wrestled with reallocating the burden of NTS cost recovery, but refrained from immediate action because of the impact that resultant changes in local rates would have on universal service. Thus, it should not be surprising to find the provisions of the Third Report and Order to be a compromise between the opposing aspects of the objectives. Second, to minimize the disruption such fundamental changes would have on the

industry, as well as to be able to refine the provisions or adapt to unforeseen circumstances, the ACP was to be implemented over a seven-year transition period. The FCC wrote:

> The gradual transition we are adopting has several advantages that, we believe, will outweigh any drawbacks. First, it establishes a schedule for movement to a cost-based access arrangement over a medium length period. Companies that have invested heavily in technologies made economic only by the continuance of uneconomic and non-cost based prices will have several years in which to amortize these investments. A pre-set transition will encourage investors to target new investments on technologies that are consistent with the underlying costs of the network and hence on the most efficient possible use of the nationwide telecommunications system.[8]

As indicated in its Fourth Supplemental Notice (1982) the FCC was swayed toward a flat-rate end-user recovery of NTS costs, called Pure 2,[9] as being the only approach that can eliminate bypass, encourage efficient use of the network, and be sustained in a competitive environment. But it refused to "ignore the problems which the implementation of Pure 2, especially its implementation on an immediate basis, would have upon universal service and rural subscribers."[10] Thus it set a minimum flat fee of $2 a month for each residential line and a minimum $4 fee per business line. The remaining common line costs, including costs for CPE, inside wiring, and the Universal Service Fund, would initially be recovered from IXCs via a carrier common line (CCL) usage charge. It defined an interstate per-line residual revenue requirement as the difference between the common line per-line interstate revenue requirement and $4 (excluding customer premises equipment, inside wiring, and the Universal Service Fund), with the recovery burden for the residual amount transitioning from the CCL charge to the end users over a five-year period.

With this transition, the FCC was able to demonstrate a clear movement to end-user recovery of NTS costs. The CCL charge, while initially substantial, would gradually decline, thereby reducing bypass incentives. Not only would there be a transition of these costs to the end user, but the total amount, that which was associated with CPE and inside wiring, would decline as these costs were phased down.

However, the CCL charge would continue to fund the Universal Service Fund (USF) portion of common line revenue requirements (see Figure 2-8), consisting of NTS costs of high-cost companies. The USF was created to enable high-cost companies to maintain local exchange rates that do not substantially exceed rates charged by other companies.[11] It was a specific response to the universal service objective. That the USF should be funded through the CCL rate element was rationalized by the FCC:

> The purpose that the [USF] would be designed to serve would obviously be frustrated if all NTS costs were recovered through end user charges that reflect the interstate NTS costs of a particular exchange carrier. Any reduction in the local exchange rates of such a carrier would be offset by increased end user charges. We have accordingly decided that common line costs that are assigned to the interstate jurisdiction as a result of the application of a universal service factor should be recovered through an access charge that is assessed upon interexchange carriers.[12]

The portion of the residual common line costs, which are transitioned from carriers to end users, are split between end-user flat-rate charges and usage-related charges, with a separate transition from the latter to the former over a seven-year period. This second transition was designed to avoid adverse effects on universal service. The ACP authorized that the end-user revenue requirement, unrecovered by minimum flat charges, be recovered through a usage charge, up to a

maximum. The maximum charge for the sum of minimum flat charges and usage charges was set at the cost of a dedicated access line, to avoid any end users being charged an amount that exceeds the cost of a dedicated line. That maximum was to decline by 10% each year for five years, a continuing emphasis on a movement to flat-rate charges. Said the FCC:

> The maximum is also desirable in its own right to reduce the threat of bypass. Since a substantial share of non-traffic sensitive costs is to be assigned to the End User Common Line element and recovered through minimum and maximum charges, the portion of NTS costs recovered in usage sensitive interstate rates will be substantially reduced. Heavy users, therefore, will find message rates that are dramatically reduced toward costs and would find bypass a less desirable option. The expectation of further reductions in both the maximum and the usage charge will further reduce the dangers of uneconomic bypass.[13]

The Commission addressed the OCC inferior interconnection issue within the discrimination objective by charging AT&T a premium for what its competitors contended was historically superior access. That premium, $1.4 billion in 1984, was tied to the value of the interstate assignment of CPE costs, which were being phased out of separations from 1983 through 1987. These costs, which are declining at 25% per year[14] from 1984 through 1987, were determined to correspond to the reduction in premium access value to AT&T as equal access is phased in.

3.2. The First Reconsideration Order

The FCC received some 35 petitions for reconsideration of the ACP. It responded with its First Reconsideration Order, which was adopted in July 1983.[15] Most important in the ruling was the Commission's rejection of all petitions to eliminate flat-rate end-user charges. The FCC stated:

> The driving force behind our decision to move toward flat charges is our commitment to promoting efficient use of the nationwide telecommunications network and our recognition that pricing reform is necessary to enable our society to maximize its efficient use of the telecommunications network and realize the benefits possible from increasing competition in the interexchange marketplace.[16]

3.2.1. Gradual Transition to Customer Line Charge

However, as a compromise, the FCC reacted to these concerns by slowing the transition to the flat-rate charges, while at the same time eliminating the controversial end-user usage charge. The proposed usage charge covered those costs assigned to the end-user common-line element, not recovered by flat charges, up to a cap on total monthly end-user charges. That cap, which was to decline by 10% each year, was meant to discourage heavy toll users from bypassing the PSN. Petitioners pointed out, however, that with Feature Group A, neither LECs nor IXCs can associate usage with a particular line. Thus there would be no mechanism for billing those usage charges. To suggestions that end-user usage charges be applied to only AT&T customers, or that a surrogate be developed for OCC customers, the FCC responded by rejecting both as being discriminatory.

However, the FCC did accept the suggestion, made by the Ad Hoc Telecommunications Users Committee, to eliminate the end-user usage charge, and recover all common-line costs through a combination of flat end-user charges and carrier's carrier charges.[17] The FCC proposed to combine the two types of transitions. Specifically, the five-year transition from carrier common line (CCL) charges to end-user charges and the seven-year transition from end-user usage charges to end-user flat charges were proposed to be replaced by a simplified six-year

transition from the CCL to flat-rated end-user charges. The 1984 monthly charge for business users was proposed to be $6, and the monthly charge for residence customers was set at $2. The residential rate was to increase by $1 each year through 1986. For the remaining years under the transition, the difference between the end-user common-line annual revenue requirement and the amount recovered based on 1986-flat rate charges was to be transitioned from CCL charges to additional end-user flat-rate charges at the rate of 25% per year. In 1990, the entire base factor portion (BFP) of common line costs would be recovered via flat-rate end-user charges.

While the Commission stated that elimination of the end-user maximum charge reduced the short-term disincentive to bypass, it "conclude[d] that transitional benefits that the end user maximum charge would produce are outweighed by the anticompetitive effects that inevitably result from any of the proposals that could make an end user charge workable."[18] The FCC also indicated that this new transition plan was simpler to administer and less confusing to customers.

3.2.2. Lump Sum Premium to Premium/Non-Premium Differential

The FCC received a number of petitions questioning the size of the $1.4 billion premium surcharge to AT&T. Some regarded the amount as insufficiently reflecting the full opportunity cost of premium access. Others pointed out that the effective surcharge was only $56 million ($1.4 billion x .04) "because AT&T would pay 96% of the [$1.4 billion] assessment, based on its [1984] market share, if the entire carrier common line revenue requirement were recovered through usage charges assessed on all carriers."[19] On reconsideration, the Commission decided to reflect the opportunity cost of premium access as the differential

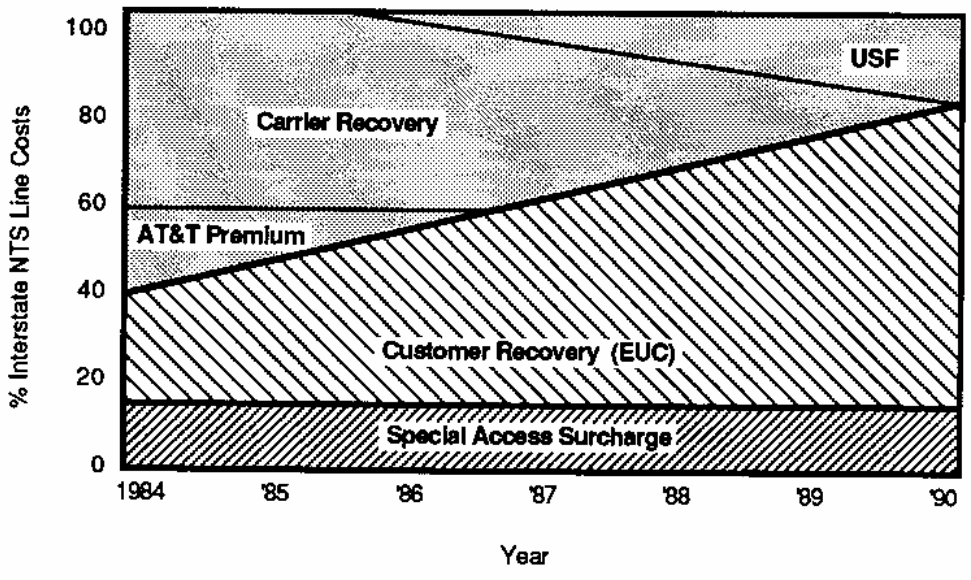
between the per-minute CCL rate charged AT&T and the per-minute charge assessed to the OCCs, who lack premium access. The Commission proposed to set the differential at 35%.

In determining the opportunity cost, the FCC took into account the superior arrangements and features of Feature Group C compared to Feature Group A, (see Chapter 2 for a description of Feature Groups A and C) as well as the fact that because of the extra digits used in dialing via the OCCs, the OCC's switch is seized for longer periods than for comparable AT&T calls.[20] The total opportunity cost projected by the FCC amounted to roughly $2.2 billion, which equated to 35% of the projected 1984 CCL revenue requirement. Thus the differential was set at 35%.

Since the value of premium access was no longer to be tied to CPE costs, the remaining four-year phase down of CPE was no longer meaningful as a basis for reducing the differential. In its place the FCC substituted the MFJ schedule for equal access implementation. Specifically, it concluded that the 35% differential be reduced to 23% for 1985 and 12% for the period January 1 through August 31, 1986.[21]

In addition to the above changes, the FCC also imposed a monthly surcharge of $25 to be applied against special access lines in an attempt to address the "leaky" PBX phenomenon.[22] This is the case where an interstate private line, originating or terminating in a PBX, may leak traffic into the local exchange, and thus receive the benefits of the local exchange without contributing to switched NTS costs. The surcharge is an estimate of the dollar amount of this leakage, and was to be applied as an offset to the common-line revenue requirement.

Up to this point, the ACP was functionally complete; it consisted of an initial set of charges and a transition to an environment where permanent rules take over. Figure 3-1 displays the treatment of NTS costs during the transition period. The Plan was indeed subject to additional controversy; the battles were just beginning. But this was the last time the ACP would fully describe the mechanics of access cost recovery after a period of transition. As will be shown, subsequent modifications would distort that transition, increasing the uncertainty of the Plan for the long term. The price to be paid for this uncertainty was additional issues of increasing complexity and further rounds of debates.



Source: Provided by AT&T

Figure 3-1

Original FCC Access Charge Plan:
Recovery of Interstate NTS Costs

3.3. Congressional Pressure

While debates over flat-rate end-user charges flared, legislative activity by Congress, dormant since S. 898 in 1981 and H.R. 5158 in 1982, began to stir anew. The earlier bills, the Telecommunications Competition and Deregulation Act of 1981 and the Telecommunications Act of 1982 respectively, were broad rewrites of the Communications Act of 1934, designed to guide the industry through the technological implications of competition. Both lost impetus when AT&T and the Justice Department signed the MFJ on January 8, 1982. Indeed, after an extensive lobbying campaign by AT&T, H.R. 5158 was withdrawn in July 1982. Whether Congress was "smarting" from this political defeat or was frustrated by the sudden imposition of telecommunications policy by the judicial branch, via the MFJ, is not known. But the ACP provided an opportunity for Congress to exert its influence on a narrow, focused issue, one that was gaining increasing exposure: the possibility of rising local exchange rates.

At a May 25, 1983, press conference, Senator Robert Packwood (R.,Ore.), Chairman of the Senate Commerce, Science, and Transportation Committee, announced that he would be distributing a draft bill, aimed at keeping down local rates, for Senate comment. Said the senator:

> The first thing to be considered is the philosophical question, "Do we want to have a subsidy?" If the conclusion is that we do, then we can take up how it should be done. But the existence of a subsidy is a matter for Congress, not the Federal Communications Commission, which is moving away from subsidies to user-intensive charges, or the courts through a consent decree.[23]

The bill, S. 1660, was formally introduced on July 21, 1983, as the Universal Telephone Service Preservation Act of 1983. As introduced,

the bill prohibited the imposition of flat fees to recover NTS interstate costs from residential and business customers. It provided that high cost exchange companies would be reimbursed for the cost of providing basic telephone service. The revenue to reimburse the exchange companies would be recovered by a surcharge on long distance carriers using the services of exchange companies through direct or indirect connection. Finally, the bill provided that the FCC and each state regulatory authority would ensure basic telephone exchange services to persons within jurisdiction of the state authority.[24]

The House had its own version of a universal service act. H.R. 3621 also reversed the flat-rated end-user charge, while requiring privately owned and operated telephone systems that bypass the local telephone company to contribute to the local telephone company's costs. Joint committee hearings were held on H.R. 3621 and S. 1660, by the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation, on July 28-29, 1983. On September 28, 1983, the House Subcommittee on Telecommunications, Consumer Protection, and Finance voted on reporting, to the full committee, a clean bill, subsequently introduced as H.R. 4102.

Up to this point, there was skepticism over Congress' ability to enact legislation to reverse access charges prior to their scheduled inception on January 1, 1984. However, prospects for such legislation received a significant boost when, on October 18, 1983, the FCC suspended the effective date of the access tariffs until April 3, 1984.[25] While the delay was ostensibly to enable the Commission's staff to evaluate thousands of pages of tariff support material which had been filed on October 3, 1983, it was also an opportunity for Congress to enact

access legislation without further disruption to the industry. In a letter to Senator Packwood, FCC Chairman Mark Fowler stated that:

> access legislation is neither appropriate nor needed at this time. [But] if Congress deems otherwise, we are committed to assisting in any way possible to help ensure that any legislation enacted achieves your intent. In this vein, we have some concern that the delay in the effective date of access charges might lead the House or Senate to postpone consideration of access legislation until after the new year. This would not be advisable. In the first place, the Commission has directed the staff to expedite its investigation, and if the work can be completed early, we will terminate the suspension before April 3, 1984. Moreover, the suspension by itself could create some uncertainty in the telecommunications industry and business community in general. If legislation is coming, delay until the last minute could worsen the situation considerably.[26]

Regardless of the impact of this letter, momentum for legislation appeared to be gaining. On October 29, the House Energy and Commerce Committee voted to bring H.R. 4102 to the House floor, overcoming two amendments supported by AT&T. One, offered by Matthew J. Rinaldo (R, N.J.), appeared to be a compromise between the bill and the ACP by placing a one-year moratorium on the end-user charge for residential and single line business customers, followed by a $1 monthly charge and yearly increments up to a maximum of $4 per month. The other, offered by Barbara Mikulski (D, Md.), would have ended the ENFIA "freeze" provisions of H.R. 4102.[27] The defeat of these amendments was a blow to AT&T. Then, on November 10, 1983, the House passed H.R. 4295, which amended H.R. 4102 to eliminate access charges from private systems that certify that they will not use local telephone company facilities. H.R. 4295 overcame additional attempts by Rinaldo and Thomas J. Tauke (R, Iowa) to substitute the moratorium compromise, and to add a statement, by the Office of Management & Budget, indicating Reagan administration opposition to the measure.[28]

The FCC responded to this action in a letter from Chairman Fowler to Congressmen James T. Broyhill (R, N.C.) and Don Ritter (R, Pa.), on December 5.[29] The letter restated FCC opposition to legislation by pointing out that staff reports show that universal service will not be adversely affected by the ACP, that the Commission was adopting a Joint Board recommendation for the establishment of a Universal Service Fund, and that it was already investigating increased differentials for the OCCs without resorting to an ENFIA freeze. In addition, the FCC restated its opposition to a ban or suspension of flat-rated end-user charges.

Meanwhile, S. 1660 was moving more slowly than its sister House bill, facing considerable opposition in the Senate. But on September 30, 1983, the Committee on Commerce, Science, and Transportation voted to adopt a substitute S. 1660, containing an amendment offered by Frank Lautenberg (D, N.J.), suspending residential end-user charges until January 1, 1985.[30] After House passage of H.R. 4295, pressure was on the Senate for its consideration of S. 1660. It was scheduled for Senate debate immediately after the 1983 holiday recess.

On January 18, 1984, in a letter to Chairman Fowler, countersigned by 31 senators, Robert Dole (R, Kan.) requested a one-year suspension of residential and single line business end-user charges, with a $4 cap once those charges are imposed, and a sharp reduction in the increase to ENFIA charges.[31] Implicit in the letter was a promise that the senators would work for the defeat of legislation if the FCC were to accept Dole's proposals. On January 19, 1984, the FCC tentatively decided to defer residential and single-line business end-user charges until June

1985.[32] The FCC confirmed that decision on January 25.[33] The next day, after four days of debate, S. 1660 was defeated by a 44-40 vote.[34]

The FCC reaction was a classic case of political compromise. By backing off from the residential and single line business end-user charges for one year, which it had publicly affirmed as late as December 5 in its letter to Congress, the FCC averted the more onerous provisions of H.R. 4295 and S. 1660, and was able to go forward with other major provisions of the ACP. The Reagan administration was able to claim victory in halting the Democratic-sponsored H.R. 4102. Even in defeat, Senator Packwood was able to point to a change in FCC position. However, he warned, "If Congress wants to make sure that what we want to achieve is going to be achieved, we had best do it by statute rather than leaving it to the vagaries of the FCC. They have already proven that it will be impossible to predict what they might do."[35] The view from AT&T was mixed. In a sense, it could claim victory when the FCC did what the Rinaldo amendment to H.R. 4102, which AT&T had supported, failed to do: stop stronger congressional action. However, as will be seen in the next section, other FCC changes to the ACP would bring further problems to AT&T.

That the FCC was forced to compromise on the ACP after vigorously defending it the previous month was seen as a major political defeat for the Commission. Whether the ACP's demise was inevitable is important to discern, since the Commission's subsequent end-user charge decisions seemed designed to avoid similar confrontations with Congress. Clearly, the FCC's failure to forge a consensus from diverse political interests led to the Plan's demise. Whether that consensus could have been obtained in an environment absent the additional complexities of

divestiture, CPE deregulation, and capital recovery remains uncertain. Figure 3-2, taken from a report on H.R. 4102,[35a] displays the rationale underlying 1983 local rate increases. As seen from the figure, the ACP's end-user charges were only one of the reasons given for increasing local rates. The confluence of regulatory, judicial, and economic forces defies individual attribution. But Congress was to exercise its leverage over the FCC in using the ACP to combat local rate increases. According to the House Committee on Energy and Commerce:

> There are limitations on the ability of the Congress to mitigate increases in local telephone rates. Congress cannot stop local telephone companies from filing rate requests nor should the Congress prevent state commissions from granting legitimate increases in local phone rates. However, the Congress can and should ensure that Federal agencies exercise their authority to serve the public interest and prevent actions like the FCC's Access Charge Decision from contributing unnecessarily to the cost of local telephone service.[35b]

State	1982 increase	1983 increase	Anticipated increases	Stated rationale: FCC access charge decision	FCC depreciation decision	Deregulation of CPE	AT&T divestiture	Long-distance competition	Loss of long-distance subsidy	Normal increases operating expenses
Alabama		[1] 117,000,000	C	C	A	C	C			A
Alaska										
Arizona		[2] 79,000,000						B		B
Arkansas		[2] 138,000,000		B	B	B				
California		[2] 1,400,000,000		B	B		B			B
Colorado		[1] 38,000,000	C		B		C			
Connecticut	[1] 89,024,000		C				C			A
Delaware		[2] 25,900,000		B	B		B			
District of Columbia		[2] 82,000,000		B	B		B			
Florida		[1] 113,000,000								B
Georgia		[2] 158,463,000			B	B				B
Hawaii	[2] 82,368,000				A	A				
Idaho	[2] 34,000,000		C		C					A
Illinois		[1] 21,000,000								B
Indiana		[2] 96,000,000		B		B	B			
Iowa		[2] 68,800,000				B				
Kansas		[2] 213,000,000								B
Kentucky			C							
Louisiana			C	C	C					
Maine		[1] 11,400,000	C				C			
Maryland		[2] 218,000,000		B		B	B	B		
Massachusetts			C	C						
Michigan	[2] 550,000,000			A	A	A				
Minnesota		[1] 56,000,000	C							
Mississippi			C	C	C					
Missouri		[2] 254,000,000		B	B	B	B			
Montana		[2] 20,710,000		B		B				B
Nebraska		[1] 8,033,000	C	C	B	C	C			
Nevada		[1] 5,857,000	C	C			C			B
New Hampshire	[1] 8,380,000		C	C			C			A
New Jersey	[2] 245,000,000		C		A		C			A
New Mexico		[2] 86,100,000		B	B	B	B			
New York			C			C	C			
North Carolina		[2] 143,974,447			B	B				
North Dakota			C	C			C			
Ohio		[2] 179,838,000		B			B			
Oklahoma		[2] 301,000,000								
Oregon		[1] 36,400,000			B	B	B			
Pennsylvania		[2] 378,000,000				B	B			B
Rhode Island		[2] 21,139,000								
South Carolina			C	C	C	C	C			
South Dakota		[2] 21,500,000					B			B
Tennessee		[2] 218,000,000		B	B	B	B		B	
Texas		[2] 1,200,000,000		B	B		B			
Utah		[2] 43,961,000			B	B	B			
Vermont	[2] 16,000,000		C	C	C	C	C			
Virginia		[1] 63,826,000	C				C			
Washington		[1] 71,000,000	C		B	C	C			
West Virginia			C	C						
Wisconsin		[1] 55,113,000								
Wyoming			C	C	C		C			C

[1] Granted. [2] Pending. A = 1982 increase. B = 1983 increase. C = Anticipated increase.

Source: U.S. Congress. House. Universal Telephone Service Preservation Act of 1983: Report of the Committee on Energy and Commerce. Report No. 98-479 on H.R. 4102, 98th Cong., 1st sess., 1983, pp. 16-17.

Figure 3-2

Summary of Local Telephone Rate Increases

AT&T's actions, in the fall of 1983, did little to help the FCC weather the access charge storm. FCC Chairman Mark Fowler had predicted that imposition of end-user charges would result in significant long-distance rate reductions. Indeed, AT&T filed, on October 3, 1983, for a $1.75 billion rate reduction. However, on the same day, the LECs filed for $3.3 billion in end-user charges. Part of the difference between the figures was the amount AT&T used to improve its earnings to its FCC-authorized level of 12.75%, from its 1983 level of 10.1%. That action provided ample ammunition for Congress' attack on the ACP. John D. Dingell (D, Mich), a key supporter of H.R. 4102, alleged that AT&T was using the ACP as a guise to "swell corporate coffers" and dubbed the ACP as "the great phone robbery."[35c]

Perhaps it was simply a matter of the FCC's trying to accomplish too much, too soon. The Commission did little to prioritize among its four objectives, leaving a complex trail of compromises and transitions. While the Plan was functionally complete, its maze of interrelationships left little room for accommodating one stakeholder without severely affecting another. As pointed out by Vietor and Davidson:

> Policy design should follow from structural analysis of both economic and political forces. The plan was indisputably comprehensive in an economic sense, but some elements were less essential than others. For example, did the sudden increase in the OCCs' access costs really further the plan's objective of achieving a competitive structure? Yes. Was it vital to the central tenets of the plan? Absolutely not. What about the charge of $6 per line for small, multiline business users? A residential rate for the first few lines of a small business might have blunted considerable opposition, with only a small cost to efficiency.[35d]

Whatever the reasons underlying the ACP's demise, the FCC's subsequent decisions seemed to be designed to avoid future political confrontations with Congress. As the following sections of this paper

show, to sustain the Plan's political viability, the FCC was to sacrifice the functional completeness of the ACP for measured, incremental modifications over time, with room for data gathering and for tracking economic and political impacts. The price to be paid for this approach would be prolonged uncertainty as to the final makeup of the ACP.

3.4. The Second Reconsideration Order

The FCC was already in the process of responding to some 35 petitions for reconsideration of the First Reconsideration Order (1983) when it decided to accept the proposal made by the 32 senators. Its January 25, 1984, decision to defer the residential and single-line business charges was then incorporated into its Second Reconsideration Order adopted on February 3, 1984.[36]

3.4.1. Deferral of Customer Line Charges

The FCC did not call the deferral a compromise or at the least an acquiescence to the political realities of the mood of Congress, but it did provide a detailed economic rationale underlying its decision. First, it took great pain to reaffirm its original decision to deload NTS cost recovery from toll to end-user charges. "At the outset, we stress that we affirm our conclusion in the [ACP] and the Reconsideration Order that a system of flat end-user charges to recover NTS costs will best preserve universal telephone service in the long run by deterring uneconomic bypass."[37] It then went on to review how the exclusion of the Universal Service Fund from end-user charges and the delayed transition to end-user recovery were mitigating factors to subscribers dropping telephone service.

Other strong statements in support of flat end-user charges include:

> We do not believe that it would be unfair to require every person who can afford to do so to bear the full cost of that person's line to the telephone company's switch. Any method of recovery that shifts some of the cost of such a person's line to other persons imposes an inequitable burden upon the persons who pay those costs.[38]

> Critics of end-user charges have tended to ignore those goals apart from occasional assertions that the efficiency benefits are "theoretical." They have not persuaded us that the generally accepted principle that recovery of fixed costs through usage charges impairs economic efficiency is not applicable to telecommunications.[39]

> We have already concluded that alternative deterrents would not be as effective in achieving the goals of the present [Communications] Act. We reaffirm our conclusion that some access costs should be recovered through end-user charges in the future in order to deter uneconomic bypass.[40]

With such strong words in support of its original decision, what could be the basis for a deferral of those charges? The Commission pointed out that in its First Reconsideration Order (1983) it had invited state commissions or telephone companies to petition for a waiver of end-user charges for a defined class of users. In what might be considered a chastisement, it noted that only two companies and no state commission petitioned for "lifeline" waivers.[41]

> It is also unrealistic to expect that all state commissions will adopt lifeline plans . . . to establish an exemption from end user access charges that is limited to persons who may in fact need an exemption. We now conclude that it will be necessary for us to define a category of subscribers who would be exempt from end user access charges . . . . Therefore, we must conduct supplemental proceedings in order to devise a rule that will provide an exemption for those persons who might have to disconnect if they were required to pay end user access charges.[42]

The Commission went on to describe supplemental proceedings on low-income exemptions, and to demand studies for determining the maximum end-user charge at the end of the transition, as well as assistance for customers of telephone companies that serve small areas. All proceedings were to be completed by December 1984, with results incorporated into subsequent tariff filings. Accordingly, the FCC ruled that the end-user charges for residential and single-line business subscribers were to be deferred until June 1, 1985. In addition, it adopted the suggestion, from the Dole letter, that the charges, once implemented, be capped at $4 until at least 1990.

3.4.2. MTS-WATS Equivalent Service

The FCC also reconsidered its 35% discount on the CCL rate element for MTS-WATS equivalent services. In its First Reconsideration Order (1983), the Commission had determined that the 35% discount equated to the value of premium access to AT&T. It pointed out that this discount factor represented a reasonable transition from the existing ENFIA discount of 45% for the use of NTS exchange facilities as equal access was phased in. However, the 45% discount was disputed by the OCCs, who claimed that the ENFIA charge was a per-line charge. With per-line usage being greater than the minutes used to calculate the ENFIA rate, the discount exceeded 45% (57.5% for Allnet and 65-75% for Satelco and Lexitel.)[43] Thus, they claimed, the price increase resulting from a reduction of the discount to 35% was excessive. The Commission itself noted that the suspension of end-user charges brought about by this order would result in further increases to the OCCs.

Other petitions led the FCC to question its determination that its $2.2 billion estimate for premium value, which led to the 35% discount factor, was appropriate. Said the FCC:

> We agree with NTIA's [National Telecommunications and Information Administration] conclusion that it is impossible to determine a precise premium value. Therefore, we have decided to adopt NTIA's suggestion that we abandon the effort to calculate premium value and establish a total differential for all relevant access elements that is related to the total differential that is produced by the current ENFIA rates.[44]

The Commission established 55% as the appropriate discount. In addition, it decided that the per-minute charge for unequal access should be converted to a per-line charge, assuming 9000 minutes per-line. Acknowledging that a per-line charge might disadvantage new entrants with usage levels substantially less than 9000 minutes, it noted that "past experience with the ENFIA tariffs, which have always used per-line charges for all elements, indicates that per-line charges do not create a significant entry barrier."[45] It was a decision that the FCC would ultimately reverse again.

3.5. Legacy of Unresolved Issues

Divestiture of the Bell System occurred as scheduled on January 1, 1984. Yet the October 18, 1983, FCC-ordered delay of the access charge implementation to April 3, 1984, and the further delay until June 13, 1984,[46] required a continuation of the settlements and division-of-revenues process that the access charge regime was designed to replace. However, this continuation needed special contracts between AT&T and the BOCs[47] because, effective January 1, the Bell System, which administered the settlements and division of revenues, no longer existed. Thus the

notion, held by some, that divestiture was inextricably tied to access charges, and tangentially the cause for increases to local rates, was proven incorrect. At least temporarily, there were payments from IXCs, including AT&T, to LECs for use of exchange facilities, without authorized access tariffs being in place.

Still, this period did see controversy. Indeed, the changes brought about by the Second Reconsideration Order (1984) provoked additional debate, some of which continued well after the order. Some of the prevailing dilemmas, as they relate to the two issues under discussion here, are described below.

3.5.1. Carrier vs. End-User Charges

What the FCC bought with its postponement of end-user charges for residential and single-line business subscribers, with a promise of further proceedings, was time to ride out the storm. That storm was substantial criticism of the ACP. Not only had Congress threatened to override the end-user provisions of the Plan with H.R. 4102 and S. 1660, but it was planning to rewrite other provisions, such as OCC discounts, bypass taxation, and the Universal Service Fund, as well.

There were parallel attacks on the ACP, coming from other quarters. U.S. District Judge Harold H. Greene, presiding over hearings on plans for divestiture, commented that the access fees would "jeopardize" the reorganization and claimed that rate increases to take effect following divestiture would be "at cross purposes" with the goal of providing universal service at affordable rates.[48] On March 1, 1983, the National Association of Regulatory Utility Commissioners (NARUC) filed a petition for review of the Third Report and Order (1982) with the U.S. Court of

Appeals for the District of Columbia.[49] In a brief filed in support of its petition on July 6, 1983, NARUC stated that:

> The FCC's flat-rate end-user access charge, because it is not tied to use of the interstate network, constitutes a charge for interstate service. As such, it is violative of the FCC's statutory authority which denies the Commission jurisdiction to impose charges on the intrastate network. It is also violative of Smith v. Illinois Bell Telephone Co. Smith v. Illinois Bell mandates that the costs of local exchange facilities must be shared by the interstate and intrastate systems because both use those facilities to provide service. The costs generated by interstate use must be borne by the interstate network. If, as is the case with the FCC's order, end users who do not avail themselves of the interstate network pay these interstate costs, the sharing provisions have been nullified and Smith v. Illinois Bell has been violated.[50]

The Court was to ultimately affirm the FCC's right to initiate end-user charges, stating:

> The Smith Court did not address the manner in which the federal agency was to perform its task. It did not hold that the FCC must order recovery of costs allocated to its jurisdiction through usage-based charges.[50a]

But, as described in this chapter, the period preceding the Second Reconsideration Order (1984) was too contentious for the FCC to avoid postponing the end-user charges.

Thus, unless the additional proceedings that the FCC promised were to determine otherwise, the deferral was to be only another delay to the transition to end-user charges, something the FCC by its statements in the Second Reconsideration Order (1984) was committed to do. The compromise with Congress left the major provisions of the ACP intact and removed the immediate threat of legislation.

Shortly after the issuance of the Second Reconsideration Order (1984), the FCC issued a Further Notice of Proposed Rulemaking,[51] asking the Joint Board to prepare recommendations on: 1) customer line charges

for residential and single-line business subscribers, 2) the transition mechanism for implementing such charges, 3) lifeline assistance for low-income subscribers, and 4) additional assistance for small telephone companies. Adopting the Joint Board's recommendations, the FCC released its Decision and Order[52] on December 28, 1984, authorizing the implementation of a $1 end-user charge for residential and single-line business subscribers effective June 1, 1985, with a subsequent increase to $2 effective June 1, 1986. Significantly, the FCC did not commit to any further increase. Instead, it indicated that it would institute further proceedings in late 1986 to examine the effect of subscriber line charges on universal service, bypass, economic efficiency, and interexchange competition.[53]

This delay of further resolution of end-user charges produced additional uncertainty as to how common-line costs will ultimately be recovered. Figure 3-3 displays an illustrative example of how the first year's interstate common-line costs would be recovered under different scenarios. The alternatives reflect different time periods, and thus costs would be expected to vary during the transition to end-user charges. But only the first year's costs, as reported in the FCC's May 10, 1984, Memorandum Opinion and Order,[54] are used in the illustration in order to compare the relative amounts to be recovered from end users and IXCs. In the example, the period June 1984 through May 1985 is the first year. The figure shows that the suspension of end-user charges for residence and single-line business customers, by the Second Reconsideration Order (1984), added a substantial amount ($9.6 billion minus $6.9 billion) to be recovered from the IXCs, including the premium charged to AT&T. Only by the third year of the transition, June 1986

through May 1987, does the recovery split between end users and carriers begin to approximate the first transitional year as anticipated by the First Reconsideration Order (1983).

	A First Reconsideration Order	B Second Reconsideration Order	C Effective 6/1/85	D Effective 6/1/86
Interstate Common Line Revenue Requirement[1]	10.9	10.9	10.9	10.9
Amount ($ billion) recovered from:				
a) Surcharge	.7[2]	.2[1]	.2[1]	.2[1]
b) Multiple business lines	1.1[2]	1.1[1]	1.1[1]	1.1[1]
c) Residences and single business lines	2.2[2]	-	1.1[3]	2.2[4]
d) IXCs	6.9	9.6[1]	8.5	7.4

Sources:
1) In the Matter of Investigation of Access and Divestiture Related Tariffs, MTS and WATS Market Structure, Memorandum Opinion and Order, Adopted: May 10, 1984; Released: May 15, 1984. FCC 84-201 34618, Appendix B.
2) Federal Communications Commission, Common Carrier Docket No. 78-72, Emergency Petition for Reconsideration, filed by AT&T in the Matter of MTS and WATS Market Structure, February 27, 1984
3) NECA Tariff, 3/15/85.
4) 1.1 million lines (from NECA Tariff, 3/15/85) @ $2.00 per line.

Figure 3-3

Illustrative Example of First-Year
Recovery Under Alternative Scenarios

Recall from Figure 3-1, under the ACP modified by the First Reconsideration Order (1983), that approximately half of the common-line revenue requirement was to be recovered from end users by the third year of transition. Thus, not only was there a two-year delay in the deloading of NTS costs from toll rates, but the industry would have to wait two years, until after subsequent Joint Board investigations, to see if there would be any additional deloading.

To the extent that end-user charges were designed to address uneconomic bypass concerns, this delay naturally brought those fears to the forefront again. The FCC had previously indicated concern about delaying the transition when it eliminated the end-user maximum charge in the First Reconsideration Order (1983).[54a] Now this delay was to initiate a new round of controversy as LECs scrambled to protect their NTS recovery from bypass by filing alternative NTS recovery proposals (see Chapter 4, Section 4.3.1).

3.5.2. Uneconomic Bypass

Shortly after the Second Reconsideration Order (1984) the Commission's staff began investigating the extent of bypass. Its conclusion, the Bypass Report,[55] confirmed earlier findings that bypass was occurring and likely to grow, and that service bypass would likely be the major form of bypass in the immediate future. While the findings do not necessarily link the increase in bypass to the delay in end-user charges, the delay was obviously not a hindrance. This Bypass Report suggested a new urgency to this issue.

In its Decision and Order (1984), the FCC noted Joint Board recommendations to combat bypass problems resulting from the delay in end-user charges:

> In addition, the Joint Board recommended that local telephone companies, with the concurrence of state regulatory officials, be given flexibility to implement optional alternative interstate tariff provisions for the recovery of carrier common line costs in order to combat localized bypass problems. To the extent that these tariff provisions fail to generate the same revenue levels as application of the nationwide average carrier common line charge, the revenue shortfall would be recovered through a uniform surcharge of no more than $.35 per month on the subscriber line charge for all customers in the relevant study area. The procedures which the Joint Board recommended for implementation of

> alternative tariff provisions contained measures designed to ensure that they do not undermine the nationwide averaging of non-traffic sensitive (NTS) costs for purposes of the carrier common line charge.[56]

Aside from the statement's stance against bypass, it reaffirmed geographically averaged interstate toll rates. One of the reasons for averaging of NTS costs through the carrier common line rate element, as administered by NECA, was its contribution toward maintaining geographically averaged toll rates, which existed under the settlements and division of revenues regime.

On February 26, 1985, the FCC adopted detailed guidelines for implementing proposed alternative tariffs.[57] Among their provisions, the guidelines prescribed LEC access credits for subscribers who were heavy users of the PSN, as an incentive to keep them on the local switched network. The credits would be offset by surcharges to the subscriber line charge of up to $.35 per month. In addition, the LECs were to continue to pay into the NECA pool based on actual minutes of use including the stimulated minutes due to the alternative tariffs, in order to ensure continued averaging of carrier common line costs. The LECs were to obtain state commission and Joint Board approval of the tariffs before filing with the FCC, along with all support as required by Part 61.38 of the FCC's rules. While LECs were free to file tariffs outside of these provisions, the FCC stated that "they will be required to demonstrate that their filing satisfies the Commission's concerns about the effectiveness of the tariffs in preventing bypass and ensuring that the tariffs do not produce distortions in the competitive marketplace."[58] As of early 1987, not one LEC has followed these guidelines by filing for volume discounts.

As part of the same order, the FCC described the framework for reviewing experimental tariffs, or tariffs that reflect a comprehensive alternative to the recovery of NTS costs. For example, the Florida Public Service Commission filed a petition on November 8, 1984, for authority to implement a comprehensive unified interstate and intrastate access charge plan in Florida on an experimental basis.[59] The FCC's order provided for a Joint Board review and recommendation within five months of the submission of such a proposal. The FCC went on to reject the Florida proposal, stating that its provisions imposed an additional burden on subscribers in other states.[60] But the die was cast for further alternative NTS recovery proposals.

On July 30, 1985, AT&T filed tariffs introducing the nodal services Megacom and Megacom 800. Nodal-based services are defined as services that do not include the access component in the physical composition or price of the service. Instead, the customer could either provide his own access, obtain access directly from the LECs, or purchase coordinated service from AT&T, including special access obtained from the LECs. Whether in fact Megacom and Megacom 800, or an earlier AT&T nodal service filing for Software Defined Network (SDN) services, promoted bypass of switched access depended upon the nature of the access the customers targeted for these services. Whether such bypass, if it existed, was uneconomic depended upon the motivations underlying the customers' actions: Was the decision to use alternative access arrangements based on price performance only, or in conjunction with non-price considerations? Both of these questions were beside the point, from the LEC perspective. The LECs' perception of these offerings as promoting switched access bypass was sufficient

justification for their petitioning the FCC with alternative NTS recovery proposals designed to combat that potential.

On July 1985, Illinois Bell filed an experimental NTS recovery plan with the Illinois Commerce Commission.[61] While not following the FCC guidelines of volume discounts to large users, Illinois Bell was adhering to the procedure of gaining state commission approval before filing with the Joint Board. The crux of the Illinois Bell plan was to recover NTS costs from the IXCs on a flat-rated mechanism based on the relative capacity of each carrier.

On October 15, 1985, the US West companies proposed an alternative NTS recovery plan in the form of a petition for waiver of the Part 69 rules.[62] US West justified this route by indicating that they were not making corresponding changes to intrastate rates, as had Florida in its proposal, and therefore the plan was "not an 'alternative tariff or experimental plan' that must be submitted to the (federal-state) joint board."[63] This action was shortly followed by proposals from Bell Atlantic, New England Telephone, and Bell South. Some of these carriers filed tariffs accompanied by waiver requests; others filed waiver requests only. While these plans will be discussed in depth in Chapter 4, the point here is that these filings, although acknowledging that the ACP would address bypass in the long run, called for an immediate interim response to the perceived switched access bypass implications of SDN and Megacom. A new dimension of the NTS recovery issue was about to begin.

3.5.3. Financial Variability and Risk

The provisions of the Second Reconsideration Order (1984) raised a new short-run controversy, but one with long-range ramifications. AT&T

might have been the loser when end-user charges were delayed to June 1985. But how big a loser it would have been only became evident when the FCC issued its order followed by its Access Tariff Order,[64] authorizing LECs to file access tariffs based on 12.75% return on investment. Not only was the carrier common line (CCL) rate element increased by some $2 billion that no longer was recovered from residential and single line business subscribers, but with the OCC discount increased from 35% to 55%, AT&T would pay a larger share of that increment. In addition, the OCC discount was expanded from the CCL to traffic-sensitive elements as well, resulting in AT&T's having to pay a traffic-sensitive increment also.

On February 27, 1984, AT&T filed an Emergency Petition for Reconsideration[65] with the FCC, claiming the LECs' authorization to file tariffs with earnings of 12.75% placed on AT&T the entire burden of the recovery of the shortfall created by the OCC discount. The company pointed out that under pre-divestiture settlements, and the interim post-divestiture contract period, the ENFIA shortfall was absorbed by the BOCs. Under the instant orders, that burden would shift entirely to AT&T, driving its earnings to confiscatory levels. The disproportionate effect on AT&T's earnings was due to the exchange carriers' having more than three times the interstate investment than AT&T. Thus, a 1% improvement in LEC earnings at the expense of AT&T is multiplied by more than three times to AT&T's detriment. The company called for the FCC to return to the 35% discount for the OCCs, and continue to have the LECs shoulder the burden for the revenue shortfall.

The underlying issue here was the relative risk between interexchange and exchange investment. AT&T pointed out that the

existing 12.75% authorized rate of return was determined for the aggregate of exchange and interexchange investment, with "no finding that each element of the investment required the same return."[66] While careful not to comment on the appropriateness of 12.75% for exchange investment, it indicated that "to the extent the required returns on exchange access and interexchange investment now diverge, the prescribed return on the interexchange investment should be higher because of its vulnerability to the competitive risks of the interexchange market, as contrasted to the relatively lower risks of the less competitive exchange access market."[67]

The FCC chose not to address directly the relative risk issue brought up in AT&T's petition. Instead, it dealt with the matter as a rate issue. On May 15, 1984, the FCC released a Memorandum Opinion and Order,[68] claiming that the LECs overstated their costs, and ordered them to refile reduced access tariffs. With this reduction, the Commission ruled that AT&T could reduce its MTS and WATS rates by 6.1%, and still achieve a 12.75% return on its investment. With new prescribed rates filed, the FCC allowed switched access tariffs to become effective on May 25, 1984. (Special access tariffs were to be suspended an additional two times, and wouldn't become effective until April 1985.) Thus, some six years after the Notice of Inquiry (1978), the ACP was partially implemented.

But what of the rate of return issue? On August 8, 1984, the FCC began an investigation of separate authorized rates of return for AT&T and the LECs. Said the FCC:

> This unitary approach may no longer be in the public interest. First, with implementation of divestiture, AT&T and the BOCs are separate companies, engaged in different activities, with different financial charac-

> teristics and risks. Second, the interstate enterprise itself is no longer a "partnership" among AT&T and the [LECs] with the participants earning the same rate of return on their interstate rate bases. . . . It is reasonable to assume that the cost of capital varies among AT&T Communications and the [LECs]. It appears that more individualized prescriptions of rates of return now may be in the public interest and a reasonable result of changing industry conditions.[69]

Later, in a Supplemental Notice of Proposed Rulemaking,[70] the FCC split the investigation into two phases. Phase I deals with enforcement of rate prescriptions, whereby the Commission allows for a spread above the targeted return, prior to determining whether the prescription has been violated. The FCC acknowledged the relative risk between AT&T and the LECs when it recommended a spread of 1/2 of 1% for AT&T, but only 1/4 of 1% spread for the LECs. In Phases II and III, the FCC plans to prescribe rates of return separately for AT&T and the LECs. It remains to be seen how risk differences will influence these prescriptions.

3.5.4. Barrier to Entry

Earlier in this chapter, Section 3.4 described the Second Reconsideration Order (1984) and mentioned that when the FCC ordered the conversion of the non-premium access charges from a per-minute charge to a per-line basis using an assumed 9000-minute-per-line usage level, it did not consider that move to be a significant entry barrier. Under the ENFIA experience, average usage had grown to 9000 minutes per line, the OCCs were expanding, and thus competition appeared to be flourishing. However, the FCC was moved to reconsider that decision in its Third Reconsideration Order (1985) in which it acknowledged that "the average usage levels for the OCC industry on which the ENFIA flat-rate was based, which ranged from 3000 to approximately 5400 minutes per line, were substantially less than the 9000 minutes we found to be a

reasonable estimate of the current industry average on which we based the flat rate for non-premium access."[71]

In addition, in a Petition for Clarification,[72] Lexitel had requested permission to continue ordering non-premium access at usage-based FX rates, in order to avoid the anomaly of paying for non-premium access at less than the authorized 55% discount.[73] This anomaly occurs when an OCC's monthly usage averages fewer than 9000 minutes per line, but the OCC pays a flat rate that assumes the 9000-minute figure. Conversely, an OCC whose average usage exceeds 9000 minutes receives an effective discount greater than the authorized 55% for that line.

The FCC stated that this variation of effective discounts was discriminatory to smaller OCCs, whose usage levels tend to fall short of the industry average, and thus the variation would, contrary to earlier beliefs, provide a significant barrier to new competition entering the marketplace. Accordingly, it ordered the establishment of a usage-based rate structure on all non-premium access services as of January 1, 1986.

In this order, the Commission also upheld its decision to phase out the non-premium discount as equal access becomes available on an end-office basis. This was a rejection of an OCC petition to phase out the discount only when access through a tandem switch is available or when all the offices in a LATA were converted. While this decision effectively ended discussion on the phase-out of the non-premium discount, as will be seen in Chapter 5, the controversy over the definition of equal access was just beginning.

3.5.5. Presubscription and Default

A major controversy brewing simultaneously with the ACP's implementation, and tied to the equal access transition, was over the

manner in which customers were to designate an interexchange carrier as their principal long distance provider. Pursuant to the MFJ, the BOCs were ordered to convert their end offices to equal access, also known as Feature Group D (FGD), by September 1986. With FGD, an end user would be able to dial up an IXC by dialing 10XXX (XXX represents the numeric IXC identification code), but more importantly, the end user would be able to access a previously designated IXC simply by dialing 1+. (See Chapter 2, Section 2.1.3, on Feature Groups A, B, C, and D.) That process of carrier designation, called presubscription, would enable an end user to access and use an OCC's service as easily as he had previously, in pre-divestiture days, utilized AT&T's services; hence the term "equal access."

With respect to presubscription, the district court held that under the MFJ, the BOCs were permitted "to route to AT&T the calls of any customer who, by the time equal access is available, has failed to make a selection of an IXC either by predesignation or by dialing an access code."[74] Several parties petitioned the FCC, claiming that this "default" mechanism would give AT&T an unfair competitive advantage. The Commission, while acknowledging AT&T's competitive advantage, originally accepted the default plan, fearing that any alternative would cause undue customer burden and confusion. The FCC reversed itself after seeing the results of a presubscription plan implemented by Northwestern Bell. Northwestern Bell's plan consisted of a two-ballot procedure. Those customers who failed to select an IXC for 1+ service were proportionately assigned to an IXC based on the results of customers who did select a carrier. Northwestern Bell then sent these customers a second ballot, giving them another opportunity to choose an

IXC, but informing them of the IXC assigned to them if no selection were made. Customers were then given six months after the end office conversion date to select a different carrier without charge.

On May 31, 1985, the FCC adopted a customer allocation plan similar to Northwestern Bell's plan.[75] It cited statistics showing that Northwestern Bell's plan "encouraged more than double the percentage of customers (60 to 70% versus 30%) to make an affirmative choice of an IXC compared with the rest of the BOCs."[76] Thus, its fears of customer confusion were unfounded. This action resolved the instant controversy, but opened up a new dimension to the question of whether the equal access transition, including the carrier selection process, was sufficient for providing a competitive environment. This issue will be discussed further in Chapter 5.

4

NTS COSTS: WHO SHOULD PAY AND HOW SHOULD THEY PAY THEM?

This chapter addresses the NTS cost recovery issue. It describes the economic, public policy, and legal forces that the ACP attempted to balance. At first glance, the question would not appear to be controversial; after all, NTS costs will ultimately be recovered from end users of telecommunications services. But from which end users and from which services has been a subject of renewed controversy since competition emerged as a significant factor in the telecommunications marketplace. Because competition is said to be motivating the shift from pricing based on averaged costs to cost-based pricing, or said another way, the "cost causer pays," an exploration of the divergence and convergence between prices and costs appears in order. Thus the chapter begins with an historical perspective of NTS cost recovery and demonstrates that while the ACP's end-user flat-rate proposal appears to resemble the pricing policies of the early 1900s, it does so for an entirely different set of reasons. Next, the chapter looks at cost-based pricing and how opponents use different interpretations of economic rationale to support their positions. Included is an analysis of the common line pool, created by the ACP and administered by NECA, and how it is impacted by proposals for modification. Finally, the chapter describes how the concern over uneconomic bypass motivated LEC proposals for alternative recovery mechanisms. The plans are classified and their influence on FCC activities assessed.

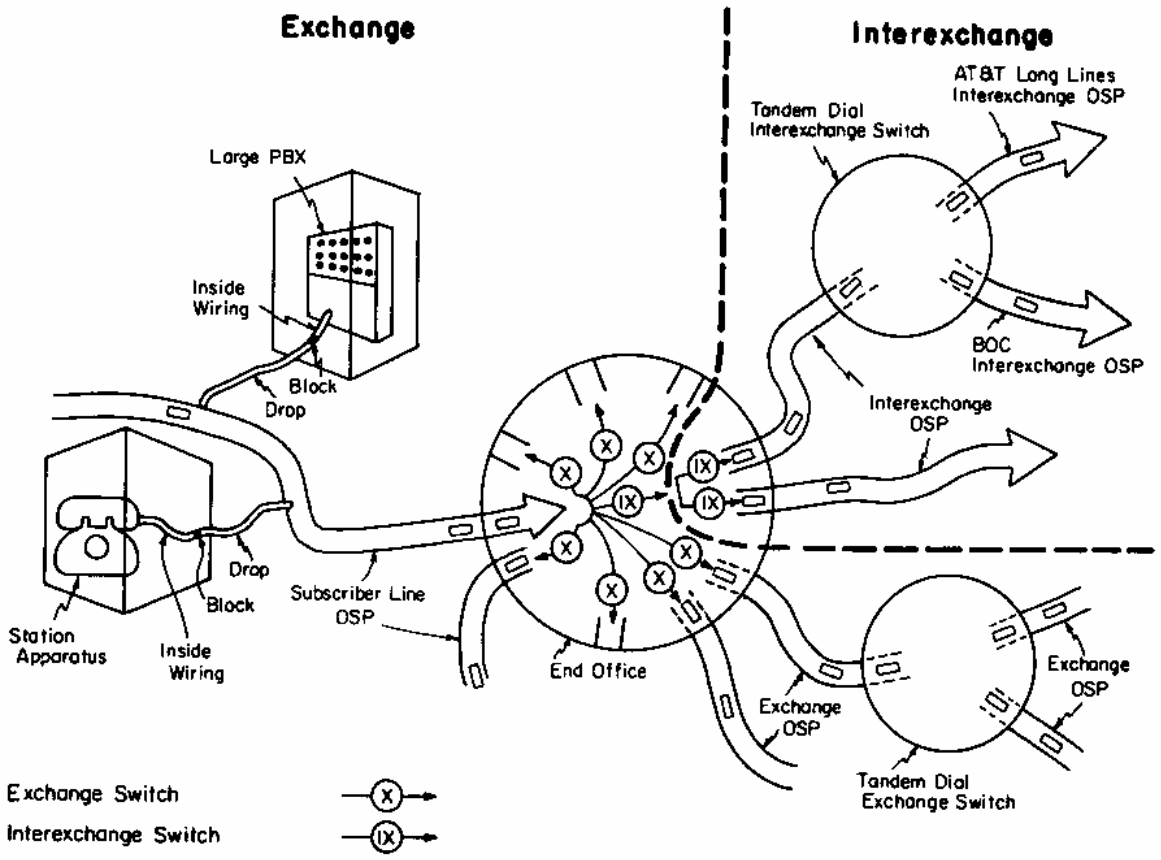
4.1. Historical Relationship between NTS Costs and Rates

4.1.1. Board-to-Board Costing

The prevailing telephone cost accounting method in use from the early 1900s through the 1930s was the board-to-board method. During the early days of toll service, the connections between exchanges were provided, as Weinhaus and Oettinger put it,

> through the use of toll boards, or switchboards, which were literally operator positions for switching calls and which were located within each exchange. Conceptually at least, the industry defined toll (interexchange) costs as only the costs of the toll boards and everything between them, including toll-connecting trunks and toll switching facilities -- giving rise to the name "board-to-board."[1]

Figure 4-1 displays the allocation of telephone plant according to the board-to-board philosophy. As seen from the figure, exchange plant, and in particular NTS plant, were attributed to the provision of local service, whose costs were recovered from exchange or local rates.



Source: Adapted from Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal-State Costing Methods: Who Controls the Dollars. ©1986 Program on Information Resources Policy, Harvard University, figure 4.

Figure 4-1

Board-to-Board Division of Telephone Plant

The board-to-board concept might have been contentious for NTS cost recovery if cost allocation had been a basis for ratemaking, but it was not. In that period ratemaking was only tangentially related to costs in the sense that rates were set to cover total costs, not just costs for a particular service, market, or product. Indeed, ratemaking was based more on the "value of service" pricing principle, which Vietor and Davidson described as follows:

> since the value of telephone service was a function of the number of people with access, regulators developed a pricing concept based on the "value of service" to the subscriber. Rates were set in proportion to the number

> of subscribers in each exchange, rather than the cost of service provided. The effect of that principle was to disassociate the rates charged from the costs incurred.[2]

State regulators extended this principle to statewide ratemaking, whereby exchange rates, which in the aggregate recovered the telephone company's revenue requirements, were proportional to exchange size. Thus, urban exchange customers paid higher rates than rural customers for the same type of service, because of the higher "value" they received by being able to reach more subscribers. The value-of-service principle satisfied the regulators' objective of extending telephone service into areas that might not sustain the economic costs of its provision. It was consistent with cost averaging only in the aggregate, in the sense that all costs were pooled and individual subscriber costs or exchange costs lost identity. But in the disaggregate, rates were disassociated from costs.

AT&T adhered to the board-to-board concept in its toll settlements with the Bell operating companies and the independent companies. The extent to which the concept was used to define the distinction between exchange and toll services suggests that it might form the basis for developing the latter's rates. Even here that was true only in the loosest sense, for, as Sichter put it, "[i]n many states, it appears that toll rates in the aggregate were not even set on the basis of toll costs."[3]

4.1.2. Smith vs. Illinois Bell

Toward the end of this period, an alternative to the board-to-board method of accounting, the station-to-station method, was gaining exposure. In station-to-station accounting, a long distance call is thought of as going from one telephone to another.[4] The implication of

this method of accounting was that long distance (toll) services, by using the exchange network for local distribution, were obligated to bear a portion of the costs for the exchange facilities. For a variety of reasons, station-to-station costing, which comports very nicely with the public policy objectives of value-of-service pricing by reducing exchange rates, was not greeted enthusiastically by state commissions:

> [1.] Since toll users are also exchange users, the board-to-board theory did not mean that exchange subscribers were unduly burdened by that theory; it meant only that the value of service consideration was extracted through the rates for the more important exchange service, and not through the toll rates.
> [2.] The ability of toll services to bear the additional costs that would be imposed on it by the station-to-station theory was doubted.
> [3.] [Some states] found that toll usage was only around 2 percent of total usage, and therefore rejected detailed allocations that involved such an insignificant proportion of exchange costs.[5]

Rather than as a basis for ratemaking, the station-to-station method eventually gained wide support as a basis for jurisdictional separations. In 1923, the Illinois Commerce Commission ordered a reduction in rates for coin box service. Illinois Bell appealed to the federal courts, claiming the reduced rates to be confiscatory. The case ultimately came before the Supreme Court as Smith vs. Illinois Bell, and led to the landmark decision on separations. The Supreme Court ruled that the issue of whether the mandated rates were "confiscatory" under the Fourteenth Amendment could not be decided without "specific findings" on the allocation of Illinois Bell's assets between interstate and intrastate service.[6] In commenting on the necessity for separations, it said:

> In the method used by the Illinois Company in separating its interstate and intrastate business, for the purpose of the computations which were submitted to the court, what is called exchange property, that is, the property

> used at the subscriber's station and from that station to the toll switchboard, or to the toll trunk lines, was attributed entirely to the intrastate service. This method was adopted as a matter of convenience, in view of the practical difficulty of dividing the property between the interstate and intrastate services. The appellants insist that this method is erroneous, and they point to the indisputable fact that the subscriber's station, and the other facilities of the Illinois Company which are used in connecting with the long distance toll board, are employed in the interstate transmission and reception of messages. . . . While the difficulty in making an exact apportionment of the property is apparent, and extreme nicety is not required, only reasonable measures being essential . . . it is quite another . . . matter to ignore altogether the actual uses to which the property is put. It is obvious that, unless an apportionment is made, the intrastate service to which the exchange property is allocated will bear an undue burden -- to what extent is a matter of controversy. . . . We think that this subject requires further consideration, to the end that by some practical method the different uses of the property may be recognized and the return properly attributable to the intrastate service may be ascertained accordingly. [Citations omitted.][7]

The "specific findings" called for by the order were to be satisfied via station-to-station accounting. Even here, reflecting "actual use" of exchange plant leaves much room for debate.

It must be emphasized that Smith vs. Illinois Bell was a jurisdictional separations order, not a ratemaking order. In conforming to the decision, the company allocated exchange revenues as well as plant and expenses to the interstate jurisdiction. Thus local rates were precluded from reduction because the reduction in costs assigned to intrastate were fully offset by a reduction in revenues assigned to that jurisdiction. The jurisdictional separations requirements of the Supreme Court's decision, according to Sichter, "in no way altered the fact that the local exchange rates had to be sufficient to generate revenues equal to the total costs of the local exchange operations -- just as they had to be under the board-to-board principle of

separations. The effect, of course, was to nullify the ratemaking implications of the Supreme Court's prior decision."[8]

The Supreme Court had another opportunity to clarify the ratemaking implications of its ruling when the allocation of revenues was contested. In its Lindheimer vs. Illinois Bell decision, the court made clear, by accepting the revenue allocation, that its Smith vs. Illinois Bell decision was solely concerned with the jurisdictional aspects of separations.[9] Thus for some time, the board-to-board and station-to-station controversy continued. While the station-to-station principle allocated a portion of NTS costs to the interstate jurisdiction, interstate rates were still based on board-to-board costs, with no contribution to NTS costs. This was yet another example of the small correlation between costs and prices.

4.1.3. Separations Agreements

While the debates over board-to-board and station-to-station theories were raging, technological advances were having a profound effect on toll costs, particularly the long haul; the lowered unit costs were resulting in increased earnings. The newly created FCC was to get AT&T Long Lines to reduce its interstate toll rates on four occasions between 1935 and 1937.[10] In addition to lowering Long Lines' rate of return, these rate reductions created a disparity between interstate and intrastate toll rates, which had been made uniform by the postmaster general when the federal government took over the telephone system on an emergency basis during World War I. That uniform rate structure was adhered to by the industry following the war, but was now threatened by this set of FCC-ordered Long Lines rate reductions.

The problem was greatest for the state commissions, which were faced with the prospect of justifying higher intrastate toll rates for calls of corresponding length and duration to their interstate counterparts. Their alternative, maintaining state/interstate toll uniformity by reducing the intrastate toll rates, might jeopardize exchange operations if local rates were increased to offset the toll revenue deficiency. The FCC had its own dilemma. With Long Lines' confining itself exclusively to interstate services, the FCC was able to evaluate its earnings without separations studies. But six multistate BOCs also conducted interstate toll business, within their own operating areas, under their own tariffs. The Long Lines' rate reductions in the mid-1930s also created a disparity among interstate toll rate schedules.[11] The FCC had no basis for evaluating the BOCs' interstate rates without performing separations studies of their operations. In lieu of performing such studies, it relied on the principle of nationwide rate uniformity as the basis for reducing BOC interstate rates:

> Absolute equality, the ideal standard, may vary or surrender on occasion to other compelling considerations. But in the absence of other controlling considerations the basic rule to be observed in the determination of reasonable charges is that there shall be from each user "equal charges for equal services".[12]

The dilemma was now AT&T's; it was faced with the prospect of having <u>all</u> interstate rates established on the basis of its lowest cost unit: Long Lines. According to Sichter, "The necessity of valuing the interstate property of the associated Bell companies could no longer be postponed, and when the FCC announced its intention to negotiate further reductions in interstate rates in April of 1941, AT&T filed a formal petition before that body requesting a determination of the methods and principles to be used for jurisdictional separations."[13]

What followed was two years of controversy on the appropriate procedures for cost allocation. But the time was ripe for compromise. Faced with inevitable interstate rate reductions, in 1943 AT&T filed interstate tariffs based on station-to-station costing.[14] By compromising, it was able to realize its objective of securing uniform nationwide separations methods. The states gained by the increased interstate toll settlements emanating from the station-to-station method. The FCC would eventually gain from the consolidation of interstate operations for interstate toll ratemaking purposes. The station-to-station procedures would eventually be formalized in the Separations Manual, in 1947.[15] But the convergence of station-to-station principles for jurisdictional cost allocation and interstate ratemaking was now complete.

The station-to-station principle assumes the allocation of jointly used NTS costs based on relative use. In 1943, SLU (subscriber line use) was the measure used for determining exchange and interexchange use of local plant. Thus, even though the NTS costs might be fixed, the interstate assignment of those costs, under station-to-station principles, was variable, and was recovered through usage-sensitive toll interstate rates. In other words, heavy usage of interstate toll service relative to state usage "caused" an increasing portion of NTS costs to be assigned to the interstate jurisdiction. The interstate rate schedules, being usage sensitive, recovered these costs proportionate to the way they were assigned. As Figure 2-7 shows, the Separations Manual was subsequently modified a number of times, in which the interstate assignment of NTS costs was proportionately increased as a function of SLU. This increased cost assignment exerted an upward

pressure on interstate rates, but the structural relationship between usage-sensitive cost assignment and usage-sensitive interstate pricing remained in effect for some 35 years.

4.1.4. End-User Charges: Return to Board-to-Board?

The bond between usage-sensitive NTS cost assignment and usage-sensitive toll pricing was broken in 1982. The FCC, upon recommendations from the Joint Board, ordered a freezing of the percentage interstate allocation of NTS costs at its 1981 level and a subsequent phasing down of the loop portion of the allocation to a 25% flat allocator over an eight-year period.[16] Thus, no matter what the level of SLU at any given time, the percent interstate cost allocation was predetermined. With cost allocation now fixed at a flat rate,* usage-sensitive pricing became inconsistent. In its Fourth Supplemental Notice (1982), the FCC expressed concerns regarding the inefficient network utilization implications of usage-sensitive recovery of fixed costs, thus prompting their proposal for flat-rate charges.[17]

The question arises as to whether, with the implementation of end-user charges, the industry has come full circle to pricing along the board-to-board costing philosophy. As Weinhaus and Oettinger point out, "as the end user pays flat rates for a larger share of the loop costs, the separation between state and interstate becomes less relevant as far as the end user is concerned. From the end user's viewpoint, the cost recovery looks like a local payment to his local operating company."[18]

The perception that pricing has returned to the board-to-board philosophy does not necessarily imply that costing of services has. Such an argument ignores the precedents established by Smith vs.

*While the percentage allocated to the interstate jurisdiction was fixed at a flat rate, the amount of costs assigned can grow, and has grown, as the pre-separated NTS costs (i.e., those costs that are to be jurisdictionally allocated) have grown.

Illinois Bell, and the subsequent separations agreements. Indeed, a return to board-to-board costing would raise the same jurisdictional battles that prompted Smith vs. Illinois Bell in the first place. As indicated by the FCC in its Access Charge Order (1982):

> The decision to exclude interstate access from local rates could have been implemented by including the interstate access costs in flat or usage rates regulated by federal regulators without violating any express or implicit directive in the Smith opinion. AT&T made the decision to recover the interstate exchange plant costs on a usage basis when it recomputed its interstate investment and expenses in 1943 to reflect some exchange plant costs in interstate rates. It had always imposed distance-weighted usage charges upon MTS customers and did not change the pre-existing rate structure when some NTS costs were added to the MTS costs . . . . Thus the inclusion of flat charges in an access charge plan does not conflict with precedent. It merely alters a carrier-initiated practice that appears to be the product of historical accident.[19]

Whether a pricing policy that has lasted more than 35 years resulted from a "historical accident" is conjecture. The discussion in the previous subsection points to the fact that, from the interstate perspective, until 1982 the NTS cost assignment was a variable cost recovered through usage-sensitive, or variable, rates. Thus, rather than being explained by a particular cost accounting methodology, flat-rate end-user charges may be viewed as an attempt to synchronize the ratemaking process with the costing process when the "frozen" interstate assignment went into effect.

But consistency between cost assignment and cost recovery was only one of the issues the FCC was facing in its ACP. As seen in this section, both the board-to-board and the station-to-station cost accounting methodologies accommodated the cost and pricing philosophy that reigned during the telephone monopoly period, that of cost pooling or averaging. From the earliest days of value-of-service pricing up to

the modifications of the separations procedures (see Figure 2-7), public policy toward pricing was characterized by the aggregation of costs over wide groups of products and/or markets and by the recovery of those costs by means of uniform rates. But as the telecommunications industry was changing to a competitive environment, the old regulated monopoly concept of cost pooling was being challenged by a new philosophy, cost-based pricing. Under this philosophy, large markets tended to be disaggregated into sub-markets, in which separately identifiable "cost causers" would be obliged to pay for the costs that they incurred. The next section describes the new dimension to the access charge debates that was brought about by this change in philosophy.

4.2. Who's Causing These Costs, Anyway?

4.2.1. Treatment of Joint Costs

Cost-based pricing was to introduce a new dimension to the NTS cost recovery issue. Within the context of NTS cost recovery, the problem of cost-causer identification appears to be simple, and the question above appears to be rhetorical. After all, when a consumer subscribes to telephone service, he is incurring or causing the cost of the local loops connecting him with the local central office. But with that subscription comes the ability to make and/or receive both local and long distance calls. Now the cost causation principle becomes more complicated. For the question arises as to whether the consumer is responsible for the recovery of NTS costs associated with the way he uses his local loop. Specifically, the consumer as a user of long distance services would pay, via toll rates, for the portion of time that the loop was used for long distance purposes. Similarly, when the

consumer was utilizing his loop for local purposes, he would pay for that use via local exchange rates. This argument is akin to the jurisdictional cost allocation discussion of the previous section.

The joint use of NTS costs has been the crux of the NTS recovery issue since its inception. Economic rationale can be, and has been, used to justify either position. One school of thought considers the jointly used local loop as a "joint cost," subject to the economic theory underlying joint costs. As expounded by Johnson in his testimony to the Wisconsin Public Service Commission hearings on access charges:[21]

> When joint production processes are used, the firm cannot increase or decrease the amount of output for one market without changing in the same proportion and direction the output or capacity available for another market. Consequently, joint costs do not vary in proportion to the total output or sale of any one of the final products, but only in proportion to the total available output of the joint production processes. . . It is easy to see how the subscriber loop and other NTS costs of the exchange network fit the definition of a joint cost. These costs are incurred for facilities used to supply three joint services: local exchange, intrastate toll, and interstate toll. The installation of a subscriber loop and drop to provide any one of the services automatically furnishes capacity for the other two services at no additional cost, since the same loop is used for all three.[22]
>
> In competitive markets, purchasers of each of the joint products will bear some share of these costs, in proportions determined by the relative strength of demand in the various markets, rather than by an arbitrary allocation formula. . . .
>
> In a similar vein, it is irrational to require local customers to shoulder 100% of the joint access line costs, or to conclude that they are being subsidized if they do not pay for all or a large share of these costs. Instead, each of the joint products which benefit from the subscriber loops should shoulder part of these costs, in proportion to the relative strength of demand for each service.[23]

In contrast to the joint cost assertion that access is part of exchange and interexchange service, another viewpoint holds that access -- the local loop connection -- is a separate service that carries with it the ability to make and receive telephone calls. In contrast to the joint cost philosophy, this assertion is based on the complementarity of demand among access, local usage, and toll usage. As explained by Wenders, in excerpts from his testimony in Arizona:[24]

> But demand complementarity does not mean that cost sharing is appropriate, nor does it mean that separate markets should not exist for each of these three elements of a toll call.[25]

> Access lines, local transport, and toll usage are used, not produced, together. One cannot make either a toll or local call without some kind of an access line. And an access line is simply valueless without any calling. Their connection is on the demand, not the supply, side.[26]

> If one wants to charge toll users for the toll capacity of access lines, fine. But this is a cost that does not vary with the amount of toll usage so it should be levied on the subscriber as a fixed monthly charge. The only difference would be that this portion of the subscriber's bill would be labeled "toll access" as distinguished from "local access" on the next line of his bill. The bottom line would be exactly the same: the subscriber would pay for access as a fixed monthly charge independent of his toll usage.[27]

> The reason why most economists argue that access line costs should be collected from end users via a flat monthly charge is not so much that such costs are non-traffic sensitive as because access line costs are customer specific and therefore they should be collected directly from the subscribers to whom these access lines are solely dedicated.[28]

This is not the first time in the telecommunications debates that economic theory has been found to support opposing viewpoints. Aside from the economic justification for opposite ends of the NTS cost recovery spectrum, the FCC's and AT&T's failure to garner widespread support for the end-user flat-rate charge derived in part from their

failure to articulate which side of the spectrum was the basis for their plan. The Access Charge Order (1982) clearly embraced Wenders' concept of pricing the local loop as a separate element:

> We reject the notion that we cannot impose a flat fee on subscribers, or that a subscriber must make interstate calls before a subscriber can be assessed such a charge. A subscriber who obtains a line to a local dial switch or a manual switchboard necessarily obtains access to interstate as well as local services. The cost of that access has traditionally been described as non-traffic sensitive because such costs do not vary with usage. A subscriber who does not use the subscriber line to place or receive calls imposes the same NTS costs as a subscriber who does use the line. A subscriber who does not make local calls would normally pay a flat fee for the exchange portion of such costs. Imposing a flat charge for the interstate portion of those costs is equally reasonable. Any other procedure violates the general principle that costs should be recovered from the cost-causative ratepayer whenever it is possible to do so.[29]

Yet, both the FCC and AT&T had earlier referred to the flat-rate charge as a Customer Access Line Charge (CALC), leaving the impression that the charge was for access to long distance companies, something that not all customers wanted. This failure to correct public perception of the end-user charge was seen by industry analysts as a major contribution to its initial demise.[30] Whether the FCC and the telecommunications industry have corrected that perception by referring to the charge as the Subscriber Line Charge (SLC) remains to be seen.

4.2.2. A Question of Subsidy

Quite apart from the cost causation principle is the question of whether the public interest is served by having the telecommunications services of one market segment be subsidized by another. This is a question of far greater concern to regulators, as they are the "guardians" of the public interest. The historical precedents for NTS

cost subsidies go back to the early 1900s, when value-of-service pricing, and not cost causation, was the principle that prevailed in most of the country. As described in the previous section, the value of telephone service increased as more subscribers joined the network. Thus rates were set based on the number of subscribers, irrespective of the costs of providing each local loop.

As a "principle," value-of-service pricing achieved official recognition when, in 1924, the Colorado Public Service Commission rejected the argument of the City of Denver that its telephone rates should be based only on the costs of providing service in that city.[31] In its landmark decision, the Commission said:

> The user of toll service is benefited by the establishment of a statewide telephone system, and the residents of Denver derive directly and indirectly substantial benefits from the operation of the telephone system throughout the state. It follows that the revenue from the telephone service rendered in Denver must be considered in the light of necessities of the system as a whole.[32]

The decision, itself, allowed for the setting of exchange rates on a statewide basis. But the implications of the ruling cover a number of examples of cross-subsidization, including the charging of business customers at higher rates than residential customers. Evidence of subsidization with value-of-service pricing, however, lies not with the direct payment from one class of customer to another; rather, it is implied by the averaging of costs over classes of customers and/or services.

As was shown in the last section, the recovery of a portion of NTS costs from interstate rates was originally a jurisdictional issue, settled by the Smith vs. Illinois Bell decision. As long as the NTS costs that were assigned to the interstate jurisdiction were based on

the relative usage of the NTS plant (as measured by SLU, for example), one could argue whether a subsidy flowing from interstate to state, or vice versa, existed. But as the various separations agreements increased the proportionate weight of SLU, the amount above SLU can be viewed as creating a subsidy of local exchange by interstate toll. Complex cost-averaging mechanisms, in the form of settlements, continued to be developed through the years, culminating in "residual pricing" for exchange services. This process refers to the setting of exchange rates to recover remaining costs, or those not recovered by toll and vertical services.[33] This extensive, complex system of cross subsidies was offered by the Bell System as a major contributor toward the goal of universal service.

The issue facing the FCC and, indeed, all regulators considering the ACP, was whether the heavy cross-subsidization could be sustained in a competitive environment. With competition, cost-based pricing becomes an imperative. The threat of maintaining the subsidies is underutilized plant whose costs are to be recovered from less profitable customers. Yet, according to some, the threat of cost-based pricing is the sacrifice of universal service.

From this perspective, one can view the ACP's common line element as a balance between these opposing pricing systems. The flat-rate end-user charge is a concession to cost-based pricing, while subsidies for local exchange would be more "targeted." The Universal Service Fund, part of the common-line rate element to be recovered from the interexchange carriers, is designed to subsidize those LECs in high-cost areas.[34] Similarly, the FCC implemented lifeline assistance measures, in the form of matching state contributions, to help low income

households afford telephone service.[35] If the original FCC plan of full end-user recovery of NTS costs is to become a reality, the onus will be on the FCC to convince its critics that these targeted subsidy plans are sufficient for maintaining universal service.

4.2.3. The Carrier Common Line Pool

Another form of the subsidy controversy is of a geographical nature -- whether revenues from one region of the country should be used to defray the costs of another. With respect to the carrier common line pool, recall, from Chapter 2 and Figure 2-8, that all LEC NTS costs assigned interstate but not directly recovered from end users are averaged by NECA for the purpose of setting the nationwide carrier common line (CCL) rate. NECA administers and settles with the LECs, who bill the IXCs for the CCL charge. The settlement is based on the net of the LECs' collections and their own interstate NTS costs (less end-user charges), using the same mechanisms that AT&T used to settle with the independent telephone companies before divestiture. In this case, a LEC whose per-minute NTS costs are less than the nationwide average will remit revenues into the pool, giving rise to the perception that it is subsidizing LECs whose per-minute NTS costs exceed the nationwide average. Although this is not a direct "exportation" of dollars, since cash flows are handled through NECA, the reality is, and the subsidy issue hinges upon the fact, that the low-cost LEC could charge the IXCs a lower rate if it only had to cover its own NTS costs.

Weinhaus developed a simulator of the NECA carrier common line pool and demonstrated how a company's position in the pool is influenced by the Part 67 jurisdictional separations procedures.[36] Indeed, that a company's position as an "exporter" or "importer" of dollars is not

necessarily defined by its NTS costs as much as by its position reflects the separations procedures authorized by the 1970 Ozark Plan.[37] Recall that in the original ACP, the CCL was primarily a transitory charge, to be phased down as the responsibility for NTS cost recovery shifted to the end users. Thus, the FCC did not have much incentive to deviate from a settlement policy that was widely accepted and had been in use since Ozark. As the FCC stated in its Access Charge Order:

> Although a uniform common tariff arrangement necessarily requires a revenue pool, it does not inevitably require pool distributions that are based upon the settlements partnership model. It may be possible to create greater efficiency incentives by devising a pool distribution formula that does not guarantee a uniform return for all participants. Since such questions apply to involuntary as well as voluntary pools, we believe this possibility warrants further study. We do not, however, have sufficient information at this time to devise pool distribution rules that differ from the settlements model. The public interest would not be served by delaying initial access charges to devise such an alternative. We have accordingly decided to adopt distribution rules that do follow the settlements model.[38]

Yet, when the FCC delayed the implementation of end-user charges, substantially increasing the amount of NTS costs to be recovered from the carrier common line pool, it did not reopen the question of alternative pool distribution methodologies. Thus the FCC failed to address questions regarding the suitability of the settlements model, with its ties to the Ozark separations procedures. The efficacy of the perceived geographical subsidy maintained by the settlements model, in light of the creation of a targeted subsidy in the form of the Universal Service Fund, also remained unquestioned.

The results of the Weinhaus simulation, including the implications of the settlements model, are summarized and extended here. Figure 4-2 depicts, in varying intensities of shading, the rank ordering of average

loop cost by study area, for the study areas (states) and data included in the simulator. Wyoming (WY), with the highest loop cost, ranks first with the darkest shading, while the District of Columbia (DC) has the lowest loop cost and ranks last with the lightest shading. The shaded column depicts the repositioning of the study areas without emphasizing relative magnitudes of costs. Note that the simulator contains data relating only to the BOCs; in 1980, they represented some $12.07 billion in loop costs.

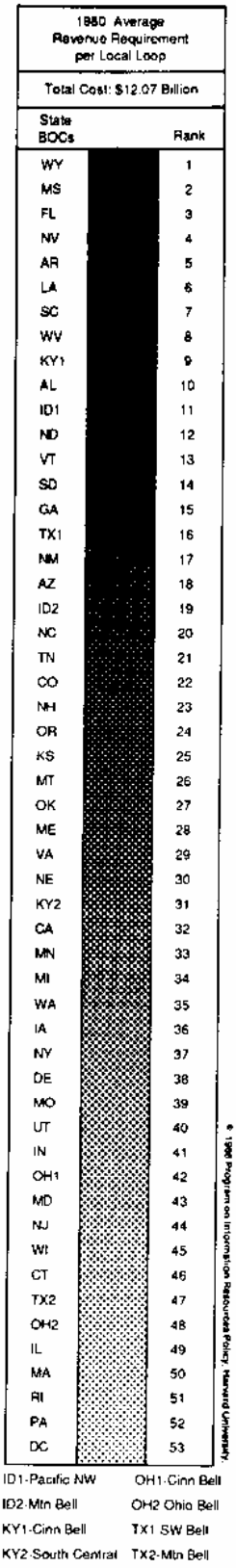


Figure 4-2

1980 Bell Operating Company
Revenue Requirements per Local Loop

If the choice is made to subsidize NTS costs, the simulator may be used to test whether the NECA carrier common line pooling arrangement, or any alternative for that matter, benefits one study area at the expense of another. For example, if the choice is made to geographically subsidize all NTS costs through a pooling arrangement (a questionable condition given that the Universal Service Fund has already been established to subsidize small high-cost companies), one would expect Wyoming to receive the greatest subsidy relative to its costs and DC to make the greatest relative contribution. In this case, the shaded column showing the settlements with the pool would be identical to the column in Figure 4-2. The company with the highest costs would receive more dollars per loop, with the dollars per loop decreasing by company until the company at the bottom contributes the largest amount of dollars per loop.

Figure 4-3 compares the shadings from simulating the NECA pooling arrangement with the shadings from Figure 4-2. Note that the pooling arrangement covers only interstate NTS costs, and thus covers only a portion of the total NTS revenue requirement. In the simulator, the 1980 BOC interstate NTS pool consists of $3.06 billion, or 25% of the 1980 BOC loop costs. Figure 4-3 demonstrates the extent of study areas benefiting or losing out in the pooling arrangement. If a company's position shifts in the rank ordering, it stands out from the gradual shading of the majority of the companies. The overall pattern of shadings in Figure 4-3 suggests that, in general, low-cost companies contribute to the support of high-cost companies, by remitting revenues to the pool in excess of their costs. (The line between ranks 31 and 32 differentiates between "payers" into the simulator pool and "receivers"

from the pool.) Indeed, WY continues to be ranked first and DC is ranked last. But some shifts stand out. For example, California (CA) benefits from the pool: CA recovers more per loop from the pool than is suggested by its rank of loop cost, primarily due to CA's high CSR ratio, SLU minutes, and number of loops.[39] Similarly, West Virginia (WV) is adversely affected relative to other states because of its low SPF% and low SLU%.[40]

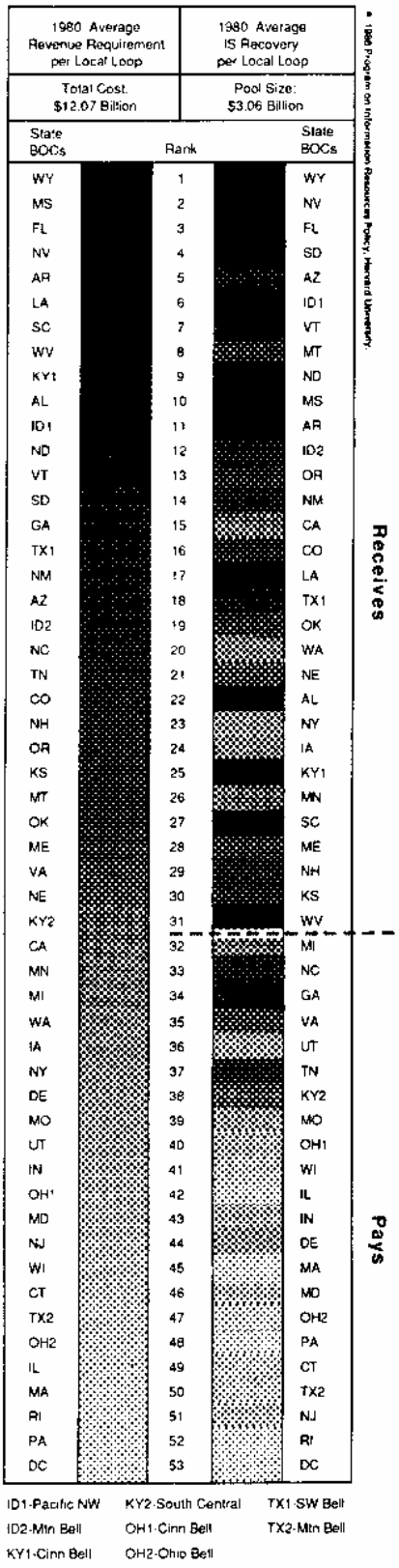


Figure 4-3

Comparison of Ranks: Cost per Loop and Ozark Plan Revenue Recovery

Simulations of alternative pools. The simulator has been used to compare the relative impacts of proposed modifications to the NECA common line pool or settlement model. On October 29, 1985, Bell Atlantic filed a petition with the FCC to limit the mandatory pool.[41] Bell Atlantic claimed that its large export of dollars ($135 million for New Jersey Bell alone) hampered the company's ability to combat bypass. The proposal sought to limit the CCL rate the Bell Atlantic companies charged IXCs to a level sufficient to recover their own NTS costs. Recognizing that its proposal would be detrimental to high-cost companies, Bell Atlantic proposed a transition whereby LECs would recover their own carrier common line revenue requirements, via separate CCL rates, up to a "cap," with NECA administering a pool for a "surcharge" element covering the "excess" costs of companies whose NTS costs exceed the "cap." Thus the amount of money involved in the Bell Atlantic "surcharge" pool is substantially less than the amount involved in the current NECA pool, and the combined CCL and "surcharge" rates that low-cost companies, such as the Bell Atlantic companies, charge the IXCs is less than the current CCL.

Figure 4-4 contains the results of a simulation of the Bell Atlantic proposal. Here, the simulated "surcharge" pool consists of less than $0.4 billion, compared with the simulation of the current NECA pool of approximately $3 billion, since, under the proposal, most of the interstate NTS revenue requirements are directly recovered by the states. The figure compares the rank orders of the local loop costs in Figure 4-2 with the results of a simulation of the Bell Atlantic proposal. These results are not dissimilar from the shadings comparison in Figure 4-3, except that the line distinguishing "payers" from

"receivers" has moved, with more study areas becoming exporters of dollars to the surcharge pool than had previously been exporting to the NECA pool.

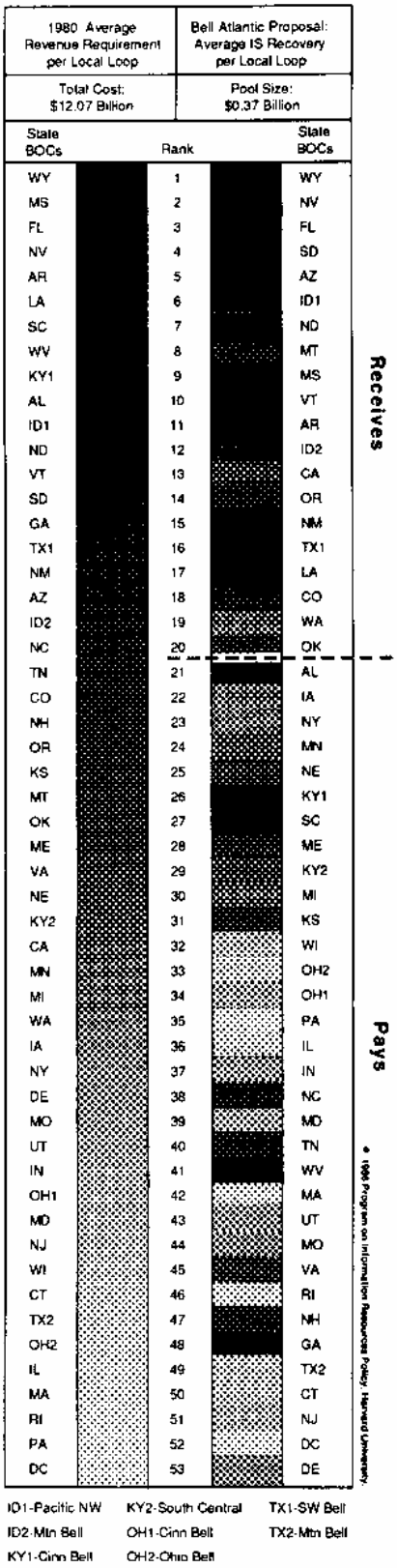


Figure 4-4

Comparison of Ranks: Cost per Loop and Bell Atlantic Proposal for Revenue Recovery

Figure 4-5 clarifies this point by directly comparing the shadings of the two pools, with the shadings of the NECA pool as the basis for the comparison. This figure demonstrates that relative positions of the study areas are not, to a large degree, affected by the Bell Atlantic proposal; low-ranked "paying" study areas continue to export dollars to high-ranked "receiving" study areas. (In particular, New Jersey's position in the rank does not change.) The principal difference lies with the states in the middle, or those states falling just above the receiving line for the NECA pool (WV up through Nebraska). These change from "receivers" of the NECA pool to "payers" of the Bell Atlantic "surcharge" pool. The reason these study areas change from being "receivers" to "payers" rests with the difference in value between the "cap" set on NTS costs and the surcharge rate element. If the "cap" is set at a level in which a study area's per-minute "excess" or unrecovered NTS cost is less than the average (of all study areas) per-minute "excess" cost (or surcharge per-minute rate), then this study area "pays" into the new "surcharge" pool. While WV through NE change their designation in Figure 4-5, in reality, the level of the cap determines the position of the line distinguishing "payers" from "receivers," between the two pools. Acceptance of the Bell Atlantic proposal, or some other form of a cap, indicates a need to be sensitive to those states who would switch from "importing" dollars to "exporting" dollars, regardless of the reduction in the size of the pool.

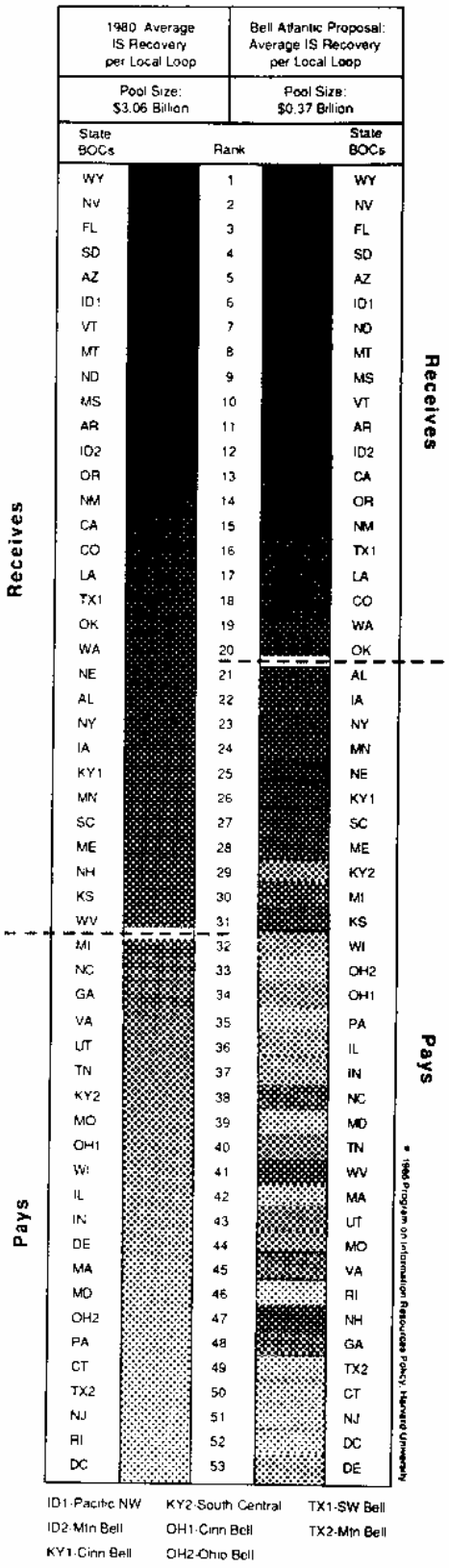


Figure 4-5

Comparison of Ranks: Ozark Plan Revenue Recovery and Bell Atlantic Proposal for Revenue Recovery

The simulator can also reflect the reduction of the carrier common line pool by a phased introduction of end-user charges. Specifically, Figure 4-6 shows the application of a $2 per loop monthly charge to the interstate NTS costs, with the remaining interstate costs pooled. The pool, in turn, is recovered from IXCs via a reduced CCL. Figure 4-6 compares the shadings from this pool with the shadings of the loop costs.

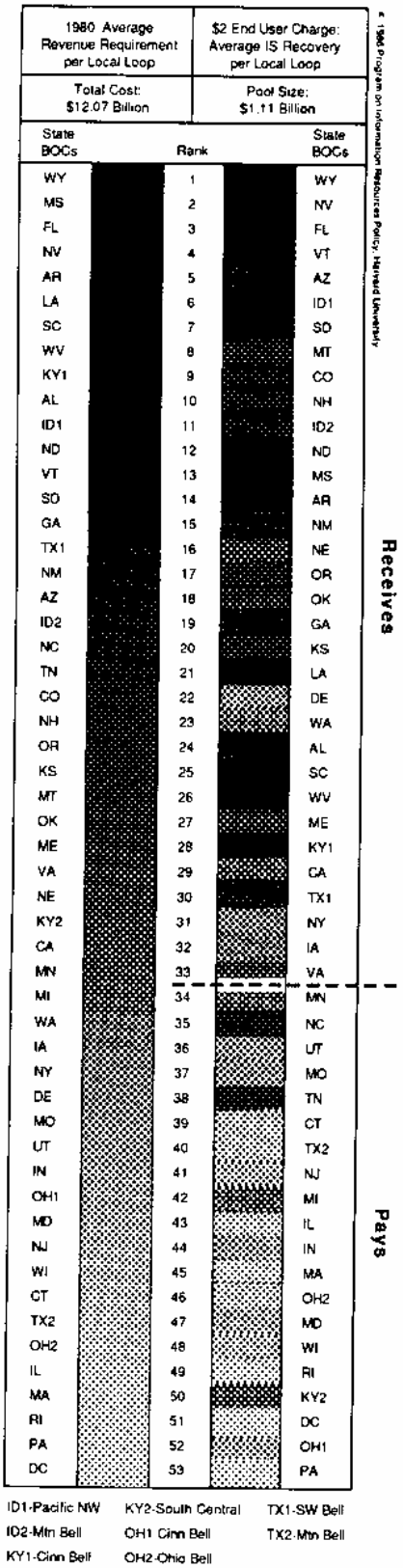


Figure 4-6

Comparison of Ranks: Cost per Loop and $2 End-User Revenue Recovery

As in the earlier Bell Atlantic proposal, the size of this pool is less than that of the current NECA pool. In this case, the simulated pool is slightly over $1.1 billion, which is less than the approximately $3 billion simulated NECA pool, but greater than the approximately $0.4 billion simulated Bell Atlantic "surcharge" pool. However, the benefits of the reduction are disproportionately shared by the study areas. Figure 4-7 compares the shadings from the $2 end-user charge pool with the current NECA pool. While most of the states retain their relative positions, a few discontinuities jump out. If the introduction of end-user charges was made proportionate to loop costs, i.e., high-cost study areas have high end-user charges, and so on, then the rank ordering and the shadings would have remained unchanged. But because a flat $2 charge is introduced everywhere, this changes the proportion of NTS costs recovered by end-user charges, thereby changing the structure of the pool. A state such as Delaware (DE), which has a small number of loops, recovers a small portion of its NTS costs from end-user charges, leaving a greater portion to be shared in the pool. DE's rank order position improves in this simulation; DE changes from a "payer" to the NECA pool to a "receiver." On the other hand, California moves down in the rank order, with its large number of loops and higher proportion of NTS costs recovered by end-user charges.

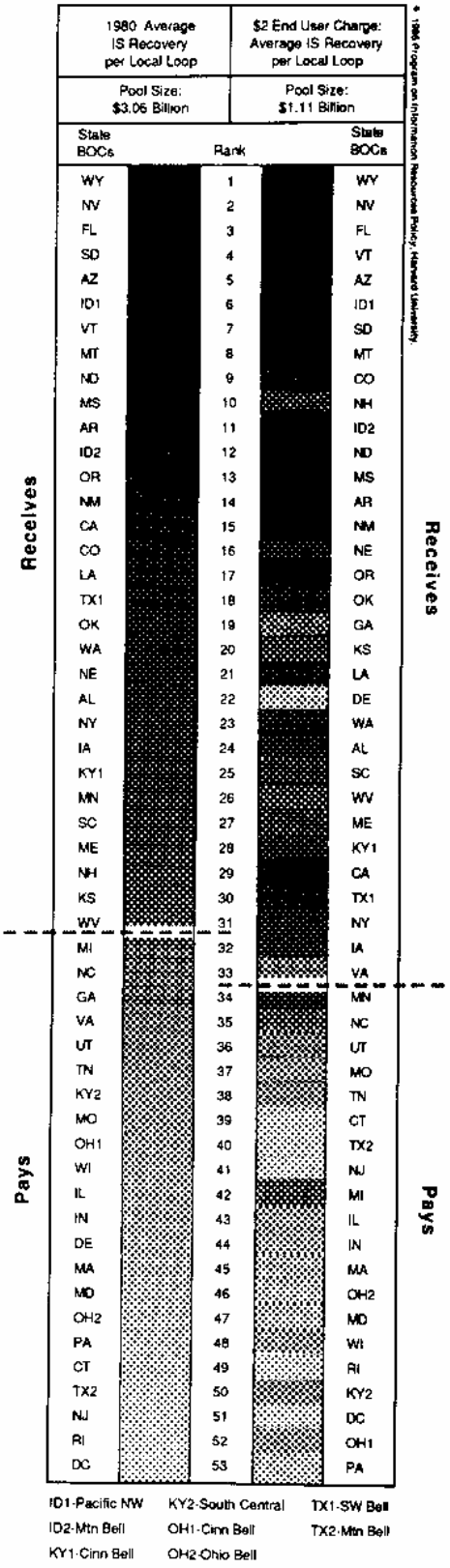


Figure 4-7

Comparison of Ranks: Ozark Plan Revenue Recovery and $2 End-User Revenue Recovery

In his comments on the Bell Atlantic proposal, Warren French, president of the Shenandoah Telephone Company, offered yet another NTS pool proposal.[42] Under the French proposal, the NECA pool would consist of interstate NTS costs based on interstate SLU%, with the remainder of interstate NTS costs (SPF minus SLU) recovered from end users. Recall from Chapter 2 that interstate SLU averaged 8.5% in 1983. Since this forms the basis for the pool, compared with a SPF average of 28.1%, this plan also reduces the size of the pool, as most of the NTS costs are recovered from end users. Figure 4-8 displays the results of a simulation of the French proposal. While the size of the pool is reduced, in this case to slightly more than $0.9 billion, the proposal contains many of the same anomalies as the other plans in the simulation. The rank order of "receivers" and "payers" reflects the rank order of loop costs only slightly better than with the other pools discussed above.

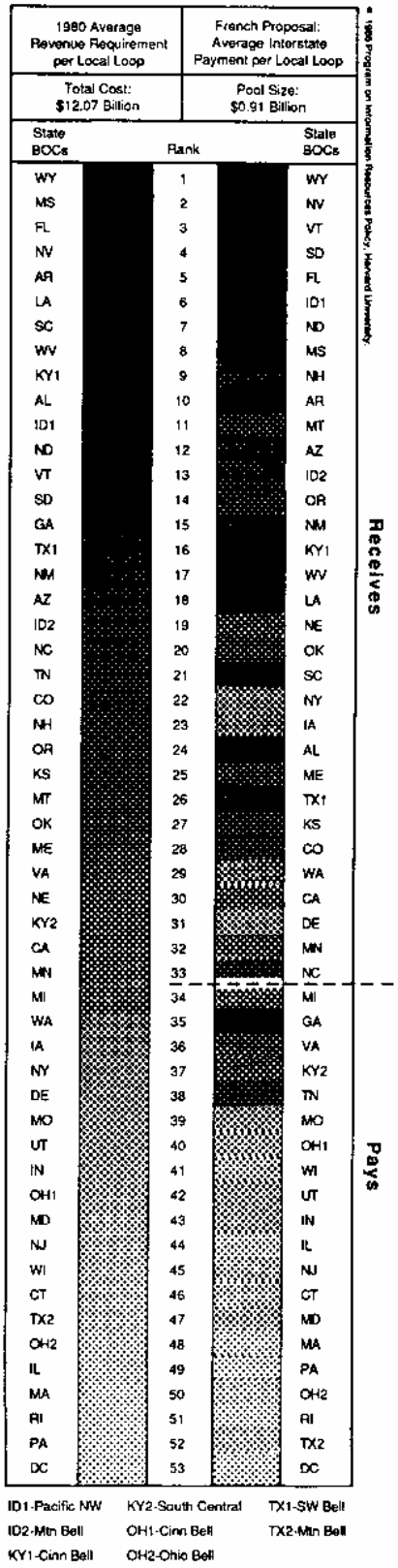


Figure 4-8

Comparison of Ranks: Cost per Local Loop and French Proposal Revenue Recovery

The FCC referred all proposals for modifying the carrier common line pool to the Joint Board, to be incorporated in their further proceedings on subscriber line charges in late 1986.[43] But the shaded figures in this section demonstrate the difficulty any one stakeholder has in garnering widespread support for moving from the status quo. Any proposal that disproportionately advantages one group of states over another is naturally subject to attack from those states that are adversely affected. Indeed, it is precisely a series of compromises and paths of least resistance that led to the complex Ozark formula in the first place.[44] While some of stakeholders are different, and some of the agendas changed, the underlying issue of NTS cost recovery remains. In anticipation of the Joint Board proceedings, LECs, under the general auspices of NECA, are seeking to arrive at an industry consensus on major issues, including pooling.[45] It would appear that a consensus can only be achieved with a plan that either significantly reduces the size of the pool or minimizes the spread between "payers" and "receivers" to the pool.

4.3. Uneconomic Bypass and Alternative NTS Recovery Proposals

4.3.1. Characteristics of Proposals

Separate from but not unrelated to questions about the size and efficacy of the NECA carrier common line pool was the question of how to recover the revenues to be distributed among the pool members. As pointed out in the discussion on uneconomic bypass, in Chapter 3, Section 3.5.2, the carrier common line (CCL) charge was established on a nationwide average basis to support the continuation of geographically averaged interstate toll rates. But many LECs, and the FCC as well,

were concerned that the high per-minute CCL charge might induce large users to bypass the local switched network in favor of special access (service bypass) or customer-provided access (facilities bypass), with prices that do not reflect contributions to local loop costs. The logical result of bypass is a continuing cycle of large customers' abandoning the local network, leaving the stranded investment to be recovered by even higher rates, thereby encouraging additional bypass, and so on. Acknowledging a concern about this phenomenon, the FCC adopted guidelines for implementing alternative NTS recovery tariffs,[46] but, following AT&T's Megacom filings, many LECs chose instead to file for waivers of the Part 69 (Access Charge) Rules in order to implement "home grown" tariffs more quickly.

While each of the proposals had unique characteristics, they had basic similarities. (The exception was New England Telephone's proposal, which will be discussed later.) The intent of the proposals was to reduce the NTS costs to be recovered from potential bypassers by obtaining some NTS contribution from existing bypassers (both service and facility based) and/or by discouraging IXC bypass by charging for NTS costs on a flat-rate basis, regardless of usage. By remaining neutral to the NECA pool, the waiver requests circumvented the problem that the Florida Public Service Commission faced in gaining FCC approval of its experimental tariff: LECs would remit revenues to the NECA pool based on existing settlements agreements irrespective of how they recovered the revenues from the IXCs.

The differences between the alternative plans lay in the way they allocated NTS cost recovery among the IXCs. The Bell Atlantic plan allocated costs on the basis of the number of equivalent voice grade

circuits connected to the IXC's point-of-presence (POP).[47] Included in the count of circuits were all switched feature groups, special access circuits, and facility bypass circuits. US West's plan was a partial flat-rate recovery plan in which originating NTS costs only are recovered by a monthly per line charge assessed IXCs on the basis of their relative number of 1+ equal access lines.[48] Similarly, the Bell South plan applied a flat-rate charge for access to originating MTS, MTS-like, and 800 service services, with the allocation of charges among IXCs based on the relative "installed switched access capacity expressed in Busy Hour Minutes of Capacity (BHMC)."[49] In addition, the proposal contained a terminating usage charge and a flat-rate charge for the closed ends of WATS lines. Pacific Bell's proposal did two things.[50] First, it recovered a portion of NTS costs from special access services, the intent of which is to provide IXCs with a more realistic economic choice between switched and special access. Second, it recovered the remaining NTS costs separately, on a flat-rate basis, from originating and terminating access, with reductions in NTS revenue requirements due to increased subscriber line charges reflected on the originating charges only. The separate charges were allocated among IXCs based on their relative market share.

On December 3, 1985, New England Telephone and Telegraph Co. filed a petition for waivers associated with a proposal that is demonstrably different from the others.[51] Instead of recovering NTS costs on a flat or semi-flat-rate basis from IXCs, New England proposed to bill end users directly for most switched access services on the originating end of interstate calls. Similar to the FCC's original ACP's end-user usage charge (See Chapter 3, Section 3.1 on Access Charge Order), the charges

were assessed per conversation minutes of use for all Feature Group C and D traffic, as well as for Feature Group A and B traffic in offices converted to equal access. The charges were tapered, providing volume discounts to large end users. However, unlike the original ACP, these charges recovered traffic-sensitive (TS) and billing costs, as well as NTS costs. Concomitant to the implementation of this plan, New England says, was the requirement that AT&T flow through its access charge savings in the form of reduced interstate toll rates. New England included TS costs in its charges in a further attempt to mitigate the incentive for uneconomic bypass through volume discount pricing. While originally intending to recover the revenue loss through the TS volume discounts from increases to special access rates, New England modified the proposal to recover the lost revenue within the taper itself. The inclusion of billing costs in the charges "allows the continued use of the existing billing and collection investments since [New England] will directly bill customers for all originating calls. . . ."[52] Like the other proposals, the New England plan was intended to remain "transparent" to the NECA pool, although the company intended to keep the extra revenues resulting from stimulated volumes and return them to its customers in the form of reduced end-user charges.

The BOCs were not the only players in the NTS cost recovery game; the FCC itself was making changes to the Part 69 Rules, changes which would have a profound impact on the way these costs were to be recovered. On December 18, 1985, the FCC adopted changes to the Part 67 (Separations Manual) Rules by, among other things, directly assigning the costs associated with the closed ends of WATS access lines to the respective state and interstate jurisdictions, depending upon the nature

of the service.[53] Thus, the closed ends of WATS access lines were to be accorded the same separations treatment as private lines, which the closed WATS ends resembled. In conformance to these changes, the Commission adopted changes to its Part 69 Rules (access charges) to recover the directly assigned interstate costs through flat-rate special access charges.[54] Prior to these changes, WATS access lines were treated as ordinary business lines, which included an interstate NTS cost assignment as a function of SPF. (See Chapter 2, Section 2.2, on Jurisdictional Separations.) Most of these costs were recovered from the per-minute CCL charge. Because the utilization of a WATS access line (both WATS originating end and 800 service terminating end) is, on average, far greater than for either a residence or business line, the WATS services were paying common line charges disproportionate to their relative costs. AT&T was required to pass these higher costs through to its WATS customers in its WATS usage charges, making WATS less competitive to other large volume services that did not use switched access.

By adopting a special access treatment of closed-end WATS lines in its WATS Access Charge Order (1986), the FCC makes the access treatment of these lines conform to that provided other dedicated lines, such as those used for private line and FX services. The FCC stated its expectation that AT&T will follow through with a reduction to its interstate WATS and 800 service usage charges. These actions, ostensibly, will mitigate the incentive to bypass the local network. In the same order, the FCC "froze" the CCL charge on terminating minutes at the existing $.0433 per minute, from June 1, 1986, through December 31, 1987. The anticipated reductions in CCL charges associated with the

increased subscriber line charge of $2, effective June 1, 1986, would be reflected in originating CCL charges, where, the FCC concluded, bypass incentives were greatest.

In yet another waiver petition, Rochester Telephone Corporation asked the FCC to allow it to be a test case for the original ACP by increasing the subscriber line charge to fully recover its NTS costs.[55] As the subject of this experimental tariff, Rochester would monitor and collect data on demand elasticity, bypass activity, and other matters relevant to access charge policy decisions. The company indicated that FCC approval of its petition would "permit the Commission and the Joint Board to assess, on the basis of actual experience, the efficacy of the Commission's original plan and to reach a more informed decision on future access charge policy."[56] However, since this petition involved modification of subscriber line charges, the FCC referred it to the Joint Board in accordance with its "experimental tariff" provisions in its Optional Alternative Tariff Order (1985).[57]

By the end of the first quarter of 1986, the stage was set for an FCC decision of major importance; it had to rule on the waiver requests of US West, Bell Atlantic, Pacific Bell, New England Telephone, and Bell South. The choices were varied and complex. The industry was waiting for a signal from the FCC about what the future access charge regime would look like. Would the Commission treat these proposals as interim alternatives, or as long-run approaches to its access charge objectives? Both Congress and the state PUCs kept a watchful eye for clues to the FCC's view of the future of subscriber line charges. Indeed, the widespread exposure and interest in this issue rivaled that of the early days of the ACP.

4.3.2. FCC Memorandum Opinion and Order

That the FCC received such a large number of waiver petitions was somewhat surprising. After all, it did invite proposals for alternative NTS recovery plans in its Optional Alternative Tariffs Order (1985). In that order, however, the Commission invited LECs to propose optional alternative or experimental tariffs via their state commissions and the Joint Board. But the FCC did not anticipate the waiver option as the route the LECs would take to propose their alternatives. As a result, the onus was on the Commission to deal with the matter directly, without the benefit of prior Joint Board consideration. Indeed, some opponents contended that the waiver approach was an inappropriate method for seeking the relief requested, in light of the Optional Alternative Tariff Order (1985).[58] According to the petitioners, however, an optional alternative tariff is limited to tariffs providing discounts to high-volume users through a flat surcharge on end users, and an experimental tariff encompasses only unified tariffs for intrastate and interstate access.[59]

IXCs, in general, were opposed to the proposed alternatives. They and others expressed concern that these plans, although offered as interim, might derail the long-term transition to end-user charges by weakening LEC support. With respect to the flat-rate proposals, IXCs argued that the flat-rate IXC charges would shift the risk of NTS cost recovery from the LECs to the IXCs. Recall from the Section 2.3.2 discussion of the tariff process that under the usage-sensitive recovery mechanism, the risk of recovering NTS revenue requirements is shared between the LECs and the IXCs. The IXCs differed among themselves over whether the proposals unfairly advantage one another.

Generally, the OCCs complained that capacity allocators will penalize smaller carriers because they have lower levels of traffic loading. AT&T, on the other hand, asserted that the annually based capacity plans unfairly discriminate against IXCs with a declining market share.[60]

There was more agreement in IXC opposition to the New England Telephone proposal. Cited were concerns about customer confusion over multiple interstate usage bills, the potential for geographically deaveraging toll rates, possible deleterious effects on local network efficiency, and the impact on the NECA pool. Particular criticism was hurled at the inclusion of TS and billing costs in the end-user charge. AT&T objected to the bundling of distance-sensitive transport costs into a distance-insensitive charge.[61] MCI objected to the leverage New England would bear in influencing IXCs to utilize its billing services.[62] New England countered these objections with the argument that the inclusion of line termination costs, which are non-traffic sensitive, in traffic-sensitive rates (See Chapter 2 on Part 69 elements) contributes to an incentive for uneconomic bypass analogous to the incentive created by the uneconomic usage-based pricing of NTS costs. The billing charges, the company argued, recover only the costs of billing the end user, and provide no inducement to IXCs to subscribe to New England Telephone billing services. Unstated, but underlying this controversy, is the issue of account control: Whose customer is the end user? While the IXCs argue in terms of network efficiency, but what they may really fear is New England Telephone's handling and billing the end users' telecommunications services up to the IXC's point-of-presence (POP). The ICXs fear that New England would insert itself between the IXC and the end user, and thus would have an unfair

competitive leverage over the IXCs, potentially reducing the IXC service to a commodity.

State commissions and consumer protection agencies were generally favorable to the alternative proposals. The National Association of Regulatory Utility Commissioners (NARUC), for instance, stated that diverse approaches to NTS cost recovery could function better than a single nationwide plan, but advocated a limited effective period for data-gathering purposes.[62a] Some parties indicated, in support of the flat-rate proposals, that the reduced risk would improve the LECs' financial health. With respect to unfair discrimination against certain IXCs, the Florida Office of Public Counsel, Georgia Consumers Utility Counsel, the District of Columbia Office of Peoples Counsel, and the National Association of State Utility Consumer Advocates, in a joint pleading, pointed out that the fact that both AT&T and the OCCs believe that the Bell Atlantic plan discriminates against them is proof that the plan is balanced.[63] State commissions were also favorably disposed toward the New England proposal, but cautioned against modifications that would upset the NECA pool.

The dilemma facing the FCC was which, if any, of the waiver petitions it would accept. On what basis could it accept one proposal over another? Would it accept all the plans or reject them in favor of its own modifications to the carrier common line charge, as decided in the WATS Access Charge Order (1986)?[64] Indeed, US West withdrew its Waiver Petition following the FCC's adoption of the Order, stating that its tariffs "were based on an access charge environment that has subsequently undergone significant change due, in part, to the Commission's recent decision in docket 86-1."[65] And what about the

Rochester Telephone petition? The sole proposal that implements the FCC's original ACP was referred, by the Commission, to the Joint Board. Would the Commission accept alternative NTS pricing plans that were, in its view, less "rational" than the ACP, in lieu of the Rochester proposal? As pointed out by the Association of Data Processing Service Organizations (ADAPSO), "By referring Rochester's petition to the Joint Board, the Commission has ensured that it will receive the benefit of input from the states. By not referring the other BOC petitions to the Joint Board, however, the Commission has seriously impaired the Joint Board's ability to make a recommendation that takes all relevant factors into account."[66]

The FCC set its April 3, 1986, agenda meeting to rule on the waiver petitions. Last minute pressures arose from a number of sources. In letters to FCC Chairman Mark S. Fowler, Senate Commerce Chairman John C. Danforth (R., Mo.), House Energy & Commerce Committee Chairman John D. Dingell (D., Mich.), and 10 members of the House communications subcommittee led by Chairman Timothy E. Wirth (D., Colo.) warned against precipitous FCC action, protesting against the spectre of geographic IXC toll rate deaveraging.[67] These deaveraged toll rates would ostensibly result from IXCs' reducing toll rates in areas, such as the New England Telephone region, where the LECs are billing end users directly for originating access charges. National Telecommunication & Information Administration (NTIA) Administrator Alfred C. Sikes warned against the proliferation of NTS recovery plans as complicating an already complex regulatory process.[68] On the other hand, the Vermont Public Service Board wrote in strong support of the New England Telephone proposal.[69]

It was a vivid reminder of how an emotionally charged issue had not lost its lustre in two years.

In a further example of maneuvering through the political cross-winds, the FCC ruled in favor of allowing limited waivers of the access charge rules providing for alternative NTS recovery mechanisms, while at the same time denying the instant petitions. It did so by setting forth guidelines for approval of interim NTS proposals filed in the future.[70] Interim plans will have to comply with the following:

> 1. Any tariff implementing an interim NTS plan must expire no later than one year after its effective date.
> 2. Any interim NTS plan will have to collect the nationally uniform, usage-sensitive CCL charge on terminating switched access.
> 3. Any interim NTS plan may not alter the fundamental operations of the NECA pool, which underlie today's geographically averaged toll rates.[71]

In addition to the general guidelines, the Commission proposed two models for NTS recovery for which it would grant waivers. Under an IXC capacity charge model:

> A LEC would be able to impose a charge on IXCs based on units of capacity, a surcharge on special access lines (including WATS closed ends) used for services that are close substitutes for MTS services, or both. The LEC would have to measure and bill IXC capacity monthly to prevent a shifting of the risk of underrecovery of NTS costs to the IXCs. A LEC would not be allowed to assess NTS charges on private bypass facilities, or to base IXC payments on the number of presubscribed "1+" customers. Under this model, an interim NTS plan would have to retain the non-premium discount for capacity related to traffic from end offices not yet converted to equal access.[72]

The Commission also established guidelines for a direct end-user charge model, similar to the New England plan:

> The LEC would have to remit to the NECA pool on the basis of the NECA CCL rate and the access minutes that would have occurred absent implementation of the plan. . . . The LEC would be required to provide detailed billing of its access charges in order to allow

> end users to cross-check bills received from the LEC and the IXC for their portions of a long-distance telephone call. In addition, end users would have to be permitted under the plan to designate willing third parties (such as IXCs) as agents for the ordering and billing of interstate access, which would allow the end-user to receive one bill for long distance calls. Any LEC implementing this model also must include a peak/off-peak differential in the end user charge or demonstrate that the costs of such a differential would outweigh the benefits to low-volume users. . . . Under the direct end user charge model, a LEC would not be permitted to change its method of recovering costs other than the CCL revenue requirement. Thus, a LEC wishing to change its collection of traffic-sensitive or Billing and Collection costs would have to submit further justification before we could approve its implementation.[73]

Explaining why the direct end-user charge model does not incorporate TS and billing costs, as proposed by New England Telephone, the Commission pointed to the inadequacy of the record on the effects of uneconomic pricing of TS on bypass. "In light of the state of this record and the importance of the issues involved, we do not believe that our guidelines for interim NTS plans should allow waiver of our access charge rules for these purposes."[74] It did not, however, preclude a LEC from submitting such a proposal, stating that it would seek comments directed specifically to these issues 30 days after that petition is put on public notice.

By denying the instant petitions, the FCC bought time by placing the ball back in the LECs' court. Even plans filed according to the guidelines will require submission of both waiver petitions and tariffs, giving two additional opportunities for parties to question the merits of a particular plan, a traditionally drawn-out process. In deciding to file a petition, a LEC must consider this fact, along with accounting for potential bypass relief emanating from the WATS Access Charge Order

(1986) and the Joint Board's late 1986 recommendation on subscriber line charges. Similarly, New England Telephone, or any LEC who subscribes to the end-user charge model, must consider the potential bypass amelioration from these NTS recovery mechanisms, prior to pursuing the inclusion of TS and billing costs in end-user charges. For then, the justification of these waivers would appear more difficult, and the account control issue would loom as a greater obstacle. Perhaps the FCC was counting on these factors as defusing the urgency for the LECs to refile alternative NTS recovery plans in the future.

The Commission's order stated that the guidelines and models did not foreclose submission of other NTS cost recovery proposals that require state commission and Joint Board concurrence in accordance with the Optional Alternative Tariff Order (1985). Thus unified state and interstate experimental plans, such as the Illinois Bell proposal,[75] may continue to be pursued. In addition to the Illinois Bell plan, other plans being considered are a revamp of the Florida Public Service Commission unified tariff plan, which was previously rejected by the FCC,[76] and a flat-rate capacity charge plan adopted for intrastate purposes in Wisconsin.[77]

5

RELATIONSHIP BETWEEN EQUAL ACCESS AND COMPETITION

The period following divestiture and the eventual implementation of the ACP saw a continuation of the debates over the level of access charges to be paid by the OCCs for their non-premium access. In developing a set of guidelines, the FCC has consistently avoided a broad rulemaking on the nature of long distance competition in favor of a narrow interpretation of equal access (1+ dialing capability) deployment as the basis for ending the discounted rates for non-premium access charged to the OCCs. For the BOCs, this deployment was directed pursuant to the Modification of Final Judgment, and scheduled for completion by September 1986.[1] Thus, by the beginning of 1987, the OCCs had lost their discounts on access charges for more than 70% of the nation's end offices, regardless of whether they had taken advantage of the superior access connections.[2] Heretofore passing the discounted access charges to their customers in the form of discounted toll rates, the OCCs faced a scheduled loss of marketing leverage as these end offices were converted to equal access. Therefore, they have repeatedly attempted to broaden the debate to encompass other measures of competition, the extent of which they felt was limited, as the foundation for continued discounts. As of early 1987 those attempts were to no avail.

This chapter will explore the OCC discount debate and its relationship to the interpretation of equal access deployment. The first section describes specific issues that occurred during the transition to equal access, while the second discusses the debates over the definition of equal access and over its relevance to the level of

competition in the interstate arena. Included will be a discussion of the linkage between those debates and their impact on OCC access charges. Even as the debates continued through mid-1986, the FCC remained steadfast against "unhooking" the equal access deployment tie-in to phasing out the OCC discount in the ACP.

5.1. Transition Issues

5.1.1. Who Pays For Equal Access

In an opinion dated July 8, 1983, the U. S. District Court for the District of Columbia ruled on the Plan of Reorganization in accordance with the MFJ.[3] Included in the decision was an opinion on how the BOCs should recover the costs of implementing equal access and reconfiguring the local networks to conform to LATA boundaries. Equal access costs consist of both the capital and operating expenditures the BOCs incur with modifying the local end office switch, enabling it to provide Feature Group D (FGD) access to all IXCs (see Chapter 2, Section 2.1.3). Network reconfiguration costs are the operating costs associated with redirecting inter-LATA toll traffic to designated tandem offices (see Figure 2-5).

In the absence of specific directions to the contrary, the application of the existing separations procedures would have included these costs with other operating costs and assigned most of them to the intrastate jurisdiction, to be recovered by intrastate tariffs, even though, as the court noted, "most of the benefits of equal access connections will flow to users of interstate, not intrastate, telecommunications services."[4] For example, under existing jurisdictional separations procedures, local exchange usage would have been taken into

account in apportioning the costs of the Uniform System of Accounts category Central Office Equipment (COE), including equal access costs, even though the equal access portion of these costs would be used exclusively for interexchange communications. Accordingly, the court directed that the costs for equal access and network reconfiguration be separately identified and targeted for recovery from the IXCs, with AT&T guaranteeing the recovery. That risk was assigned as follows:

> According to the plan of reorganization, the equal access construction program will be completed in five years. Within five years thereafter, that is by January 1, 1994, if the [BOCs] have not recovered the costs of equal access and network reconfiguration, inclusive of financing costs, through their collection of access charges from the [IXCs], AT&T will be responsible for reimbursing the [BOCs] in the amount of any remaining deficit. A preliminary accounting will take place at the close of the construction program or by January 1, 1989, whichever is earlier.
>
> If the [BOCs] and AT&T are able to report to the Court on or before January 1, 1994, of their agreement that all [equal access] costs have been recovered, AT&T will be discharged from any further obligation with respect to the cost of equal access and network reconfiguration. If there is a dispute, the Court will decide, if necessary with the assistance of the Department of Justice and the Federal Communications Commission,[5] whether all costs have been recovered.

The court later refined AT&T's risk by stating that the company's guarantee obligation would be discharged to the extent that the BOCs fail annually to file carrier access tariffs designed to recoup any then-unrecovered equal access and network reconfiguration costs by January 1, 1994, or if any regulatory commission fails to permit such tariffs to take effect.

Failing to reach agreement on the specific cost elements to be included in the equal access accounting plans, the BOCs and AT&T filed separate proposed plans with the court. Meanwhile, the Joint Board

initiated an investigation of the separations implications of equal access costs in its Order Inviting Comments.[6] In addition to identifying the specific equal access costs to be included in the plan, which would ultimately be subject to the AT&T guarantee, the Joint Board was charged with the responsibility for developing procedures for allocating these costs between the state and interstate jurisdictions.

A key subject of controversy was the factor to be used in the cost allocation. The LECs and state commissions favored a factor based on access minutes of use (see Chapter 2, Section 2.3.1). Under this approach, the allocation of equal access and network reconfiguration costs would be based on the relative jurisdictional ratio of interstate access minutes of use to total access minutes of use. Excluded from this calculation would be all BOC intraLATA minutes, both toll and exchange, as they would not be associated with access. The practical implication of this result is that the interstate jurisdiction bears a greater proportion of access minutes than total minutes, and thus a larger share of the equal access costs and network reconfiguration costs would be recovered from interstate access tariffs. In addition, under this method, all equal access costs would be assigned to be recovered from access tariffs, and thus subject to the guarantee.

AT&T, on the other hand, argued that all services, including intraLATA toll, benefit from the expenditures on equal access and network reconfiguration. The company supported an equal access cost allocation on the basis of relative toll minutes of use. Under this approach, equal access costs would be allocated based upon the relative jurisdictional ratio of interstate toll minutes of use to total toll minutes of use, which includes all inter- and intraLATA toll minutes,

including BOC toll minutes. The result of this calculation would assign a larger share of the equal access costs to the state jurisdiction than would the allocation based on access minutes. Included in the state allocation would be a portion assigned to the BOCs' intraLATA toll operations, which were outside of the guarantee. Figure 5-1 illustrates the impact of the alternative BOC and AT&T proposals to allocate equal access costs. In addition, AT&T favored an assignment of network reconfiguration costs based on existing separations procedures, which would also have assigned part of these costs to local exchange operations.

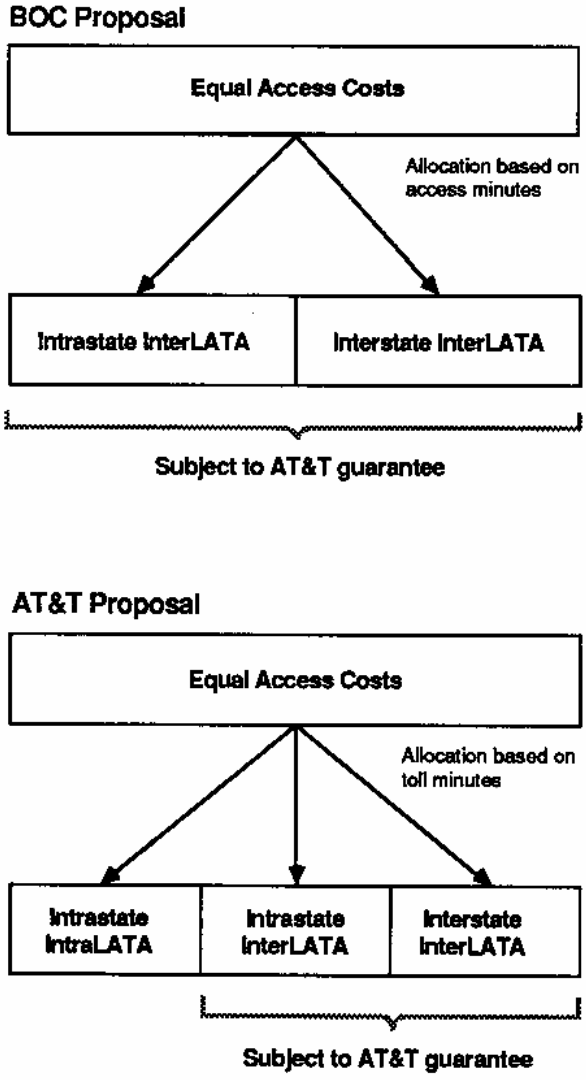


Figure 5-1

Illustration of Alternative
Jurisdictional Allocations of Equal Access Costs

In yet another example of Solomonic ruling, the Joint Board recommended[7] that, while equal access costs should be allocated between

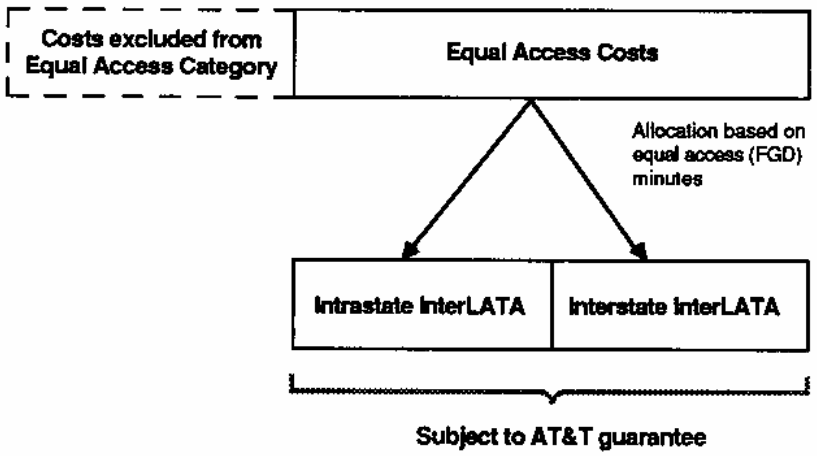
state and interstate jurisdictions on the basis of relative equal access minutes (Feature Group D minutes) of use, what constitutes equal access costs should be defined very narrowly. In addition, expenditures for network reconfiguration should be allocated pursuant to existing separations procedures.

In specifying a limited definition of equal access costs, the Joint Board recommended that:

> the Commission define equal access costs (for separations purposes) to include only initial incremental presubscription costs, and initial incremental expenditures for hardware and software related directly to the provision of equal access, which would not be required to upgrade the switching capability of the office involved absent the provision of equal access. We also recommend limiting this category to such costs incurred in response to a bona fide request for equal access or to implement equal access in an end office which serves competitive interexchange carriers. Absent competition or a bona fide request for equal access there would appear to be no legitimate reason to implement equal access, and any such costs should be excluded from the equal access cost category. Certain other costs, however, should not be included in the equal access cost category. These include: 1. tandem switches that provide a connection for equal access traffic; 2. the financial cost of advancing projects in order to implement equal access; 3. ongoing or continuing software maintenance costs related to the new software generic; and 4. expenses incurred prior to the date of divestiture, January 1, 1984.[8]

The practical implication of this compromise was that while use of equal access minutes as the allocator assigns a higher proportion of costs to the interstate jurisdiction, the restrictive definition of equal access costs limits the amount of dollars to be allocated within this special category and, thus, reduces, from the original equal access accounting plans, the dollar amount subject to the AT&T guarantee. Figure 5-2 illustrates the impact of the Joint Board's recommendation. The FCC

endorsed the Joint Board's reasoning in adopting the recommendations on January 3, 1986.[9]



Source: Mark Lemler

Figure 5-2

Illustration of Joint Board Recommendation

5.1.2. LATA-Wide Equal Access

Following the Second Reconsideration Order (1984) of the access charge proceedings, a number of OCCs petitioned the FCC to reconsider the provisions of the ACP that tied the removal of the 55% discount for non-premium access to the phase-in of equal access on an end-office-by-end-office basis. (When an end office is converted to equal access, the non-premium discount no longer applies to Feature Group A (FGA) and FGB traffic originating or terminating in that end office.) Some, pointing to problems with marketing equal access services, asked that termination of the discount be delayed until all or almost all of the end offices in a LATA were converted to equal access.[10] With end offices being

converted intermittently nationwide, these OCCs believed that they could not use mass media advertising to market their services. Their only alternative, direct mail advertising, was less efficient and more expensive, thereby leading to their proposal to continue the discount to offset these marketing expenses.

In a related argument, some OCCs asked that "equal access should be deemed to be available for purposes of phasing out the discount only when 'tandem access' becomes available, i.e., when it is possible to access multiple Feature Group D (FGD) end offices through a single tandem switching arrangement."[11] They based their argument on the fact that planning and ordering FGD on an end-office basis is less efficient than through a tandem office. AT&T, they claimed, has a competitive advantage by ordering either Feature Group C, or Feature Group D in converted offices, in bulk through tandem offices.[11a] This competitive advantage could only be offset by a continuation of the OCC discount until all end offices within a tandem arrangement were converted to equal access.

In its Third Reconsideration Order (1985), the FCC demonstrated how little it was persuaded by these arguments when it stated:

> We decline these invitations to abandon our end-office approach to phasing out the non-premium discount in favor of requirements of "tandem access" or LATA-wide equal access. It was our intent in the Second Reconsideration Order to tie the phase-out of the discount to the phase-in of equal access that would be taking place pursuant to the schedule established in the MFJ. For the purposes of that schedule, equal access services are deemed to be available in all end offices that are actually converted to equal access, and not only in those converted end offices accessible through access tandems or in LATAs in which virtually all end offices are converted. Furthermore, the 55 percent discount and the end-office-by-end-office approach to phasing out that discount are complementary parts of the transitional plan for non-premium access we adopted in

> the Second Reconsideration Order. Were we to accept one of the alternative approaches to phasing out the discount suggested by the petitioning OCCs, we would find it necessary to consider reducing the level of the discount below 55 percent. It is not clear that these petitioners would find the combined results of such complementary changes to be in their best interests. In any event, we find that making either type of change at this time would not be in the best interests of the industry as a whole or the public.[12]

This ruling was a major blow to the OCCs. The FCC determination to use the equal access deployment as the basis for elimination of the non-premium discount put that elimination on a definitive schedule, independent of the level of competition that exists when that deployment takes place. As will be seen in the next section, the OCCs were to change tactics by broadening the debate to one of competition; specifically they were to argue that the discount should not be eliminated until the level of competition was such that it could exist without the discount.

5.1.3. 800 Service Database

800 service (formerly known as INWATS) is an interexchange service in which the called party, rather than the calling party, subscribes to the service and pays for the calls. Similar to WATS, 800 service requires a dedicated access line, but at the terminating or subscriber end of the call. Unlike WATS however, 800 service requires special screening and routing capabilities at the originating end. When introduced by AT&T, these capabilities were performed by special switching offices that were set up to verify that the call originated from a geographic area that the subscriber has paid to accept calls from and then to route the call over the network. This methodology lacked flexibility in that every digit in the 800 number was used in the

screening and routing functions. Separate numbers were required for interstate and intrastate services, different geographic coverage, and changes in receiving location.

In 1981, AT&T enhanced its 800 service by using its Common Channel Interoffice Signaling (CCIS) system and an 800 database filled with service information. The enhancement bifurcates the screening and the routing processes. Under this system, an 800 call is routed to the screening office, from which the CCIS sends the call origin detail to the database that verifies the call and translates the 800 number into a standard 10-digit number. The CCIS returns the 10-digit number to the screening office, which routes the call over AT&T's network. With this enhancement, a customer may now use a single 800 number for both interstate and intrastate calls, and retain that number even if he changes terminating locations or geographic coverage. Even more important, from a marketing standpoint, the customer is able to choose an 800 number with a special significance to his business, for example, 800-CLUB-MED. This "catchy" phrase or word for the 800 number is independent of the customer's 10-digit number; the database performs the translation to a standard telephone number.

The 800 database and CCIS became a subject of contention at divestiture. The Plan of Reorganization provided that the 800 database belonged to AT&T, but the company must lease the system to the BOCs for the provision of intraLATA 800 service. The Plan also determined that the 800 prefix is not AT&T's property, so that both the BOCs and OCCs are entitled to use it for their 800-type services. The BOCs asked the District Court for interim access to the CCIS database system while they developed their own system. In December 1983, the Department of Justice

(DOJ) filed a motion asking the Court to grant the BOCs' request in order to allow them to provide equal 800 access to the OCCs. AT&T countered that the CCIS database system was an AT&T proprietary asset and that the BOCs could provide the OCCs with 800 access equal to that provided to AT&T, without the CCIS database system. AT&T's alternative, called the "NXX Plan" because it uses the second three digits, or NXX, in a 10-digit 800 number to sort calls among IXCs, was similar to the system it had used prior to the introduction of its 800 service enhancements. Under the plan, each IXC is assigned one or more NXX codes. The BOC end office routes the call to the appropriate IXC based on the first six digits of the dialed 800 number. The IXC can then translate that number into a 10-digit telephone number for routing to the terminating LEC, as does AT&T with its CCIS system, or directly deliver the call via dedicated facilities to the terminating LEC.

In January 1985, the Court ruled against the DOJ motion, denying the BOCs access to AT&T's CCIS system. Viewing CCIS as proprietary, and referring to OCC use of its capabilities, Judge Greene stated:

> The purpose of the decree is a limited one: to remove barriers to entry and create a truly competitive environment for interexchange (IX) service. It is not the artificial creation of competition by enabling the [OCCs] to share AT&T's capabilities and facilities to which they are not otherwise entitled. If the [OCCs] wish to fulfill the decree's promise of flourishing (IX) competition, it will be up to them to make the necessary financial investments and to develop the appropriate technology.[13]

The Court acknowledged the BOCs' development of their own database systems as part of establishing themselves as independent of AT&T, but determined that giving the BOCs access to AT&T's database would raise the danger that they "could use the capacity, information, and functions

they acquired . . . improperly to provide (IX) services."[13a]

Contemplating the BOC use of the interim 800-NXX plan, the Court said:

> The operating companies will be providing to AT&T and to the various [OCCs] information identical as to type and signal quality -- i.e., the dialed 800 number. Only AT&T currently possesses the technology to perform more advanced 800 service operations upon the receipt of the 800 number, but this does not alter the fact that the (BOCs) will be providing all [IXCs] with identical information at an identical quality level. That is what the equal access provisions of the decree require, and that is all they require in this context.[14]

The issue did not end here. On July 12, 1985, Bell Atlantic advised the DOJ of its intention to forego the development of an interim 800-NXX system, in the absence of a specific customer request other than AT&T, in favor of developing its own database plan.[15] Because Bell Atlantic relied on AT&T for software development work to implement the database plan, it called on the DOJ to require AT&T to supply the software on a priority basis. On the same day, Bell Atlantic filed a petition with the FCC, asking the Commission to initiate a rulemaking on the obligations of the LECs to provide 800 service access to the IXCs.[16] Specifically, Bell Atlantic asked that the Commission establish rules for the long-term establishment of a single, nationwide form of 800 access. With respect to the interim, Bell Atlantic asked the Commission to allow LECs to forego providing interim access, or if interim access was necessary, require AT&T to make its 800 database system available to the BOCs and allow Bell Atlantic to recover its costs from all IXCs who use its interim 800 access. Bell Atlantic repeated the same arguments it had made to the DOJ, pointing to the lack of OCC interest in the NXX plan as reason for avoiding a wasteful expense for its provision, especially if the devotion of resources to the interim plan delays the

implementation of its database plan. Opponents argued that an interim plan could be implemented quickly and inexpensively, and indeed one IXC, SBS, expressed interest in obtaining interim 800 access, even if it was the less desirable NXX plan.[17] In further responses, Bell Atlantic stated it would provide the interim NXX access.

On January 14, 1986, the FCC denied Bell Atlantic's petition for rulemaking on interim 800 access, but initiated a rulemaking proceeding on the long-term obligations of exchange carriers to provide 800 access.[18] In denying the petition for rulemaking on interim 800 access, the Commission indicated that most of the BOCs, including the Bell Atlantic companies, were in the process of implementing interim plans, and a rulemaking would only interrupt that schedule. It also refused to rule on the AT&T database question stating that "it is unclear that access to the AT&T database system could be implemented significantly before implementation of a long-term access plan."[19]

With respect to a rulemaking on long-term 800 access, the Commission concluded that a uniform, nationwide system of 800 access is in the public interest. But what features should be incorporated into that system was still an open question, as was the question of whether the features included in the BOC database proposals such as multiple carrier selection and least-cost routing among IXCs were in violation of the MFJ. In initiating a rulemaking proceeding, the FCC invited comments on several specific questions related to these issues. As of mid-1987*, the docket was still open.

As a result of the FCC's denial of the Bell Atlantic petition, AT&T is the short-term winner of the 800 access controversy. The company was allowed to refrain from sharing its 800 database and CCIS system, and

*See Postscript regarding MCI's petition to reopen the docket proceeding.

maintain a virtual short-term monopoly of interLATA 800 services before the NNX plans were to be implemented. But that gain might be fleeting if the BOCs are able to provide multiple features with their database systems (especially those, such as least-cost routing among IXCs, that are subject to questions about MFJ restrictions) that duplicate AT&T's system, and are able to recover the costs of those features from the IXCs, including AT&T. By the same token, the BOCs are short-term losers, but the resolution of Rulemaking Docket 86-10 will eventually determine whether they will be the ultimate winners. The same can be said for the OCCs. While they were denied access to AT&T's 800 database, they were able to introduce 800 access as a new dimension to the question of what constitutes equal access. The next section will describe how the OCCs used 800 access as an example of how the "value" of equal access, as defined by the FCC, was less to the OCCs than to AT&T.

5.2. Is Equal Access A Litmus Test for Competition?

In the first half of 1985, the OCCs experienced a number of setbacks in their attempts at extending the non-premium discount or gaining additional relief for their inferior access. First, in January, the Federal District Court denied a DOJ request to give the BOCs access to AT&T's CCIS system and 800 database for the purpose of providing the OCCs with 800 service access.[20] Thus, the OCCs were left with the choice of either developing their own 800-type database, to compete with AT&T's 800 service (but they would still have to wait for the BOCs to implement an interim 800-NXX system), or wait until the BOCs develop databases and then access them as part of a competitive 800 service.

Either choice represented a considerable delay in entering the growing 800 market.

Second, in the Third Reconsideration Order (1985) of the Access Charge Order, the FCC denied an OCC request to "unhook" elimination of the non-premium discount from the end-office-by-end-office implementation of equal access.[21] The Commission would subsequently reaffirm this decision when it denied petitions for reconsideration.[22] Despite this denial, the OCCs were encountering enough problems during the end office conversions to equal access to lead them to question the "value" of equal access as currently defined. Ultimately they would argue that the road to a competitive environment goes beyond a mechanistic definition of equal access, and certain OCC relief from continued competitive inequalities must be obtained if that environment is to be achieved. To a large extent, this attempt to broaden the equal access definition was unsuccessful. The following summarizes some of the key forums of this controversy.

5.2.1. MFJ Requirements

While the question of defining equal access has been in existence since the early part of the Docket 78-72 proceedings, a working definition resulted from the MFJ. The agreement defined exchange (interLATA) access as:

> The provision of exchange services for the purpose of originating or terminating interexchange telecommunications. Exchange access services include any activity or function performed by a BOC in connection with the origination or termination of interexchange telecommunications, including but not limited to, the provision of network control signalling, answer supervision, automatic calling number verification, carrier access codes, directory services, testing and maintenance of facilities and the provision of information necessary to bill customers. . . . Such

> connections, at the option of the interexchange carrier, shall deliver traffic with signal quality and characteristics equal to that provided similar traffic of AT&T, including equal probability of blocking, based on reasonable traffic estimates supplied by each interexchange carrier.[23]

The Court declined to impose a stringent definition of equal access in terms of technical quality. Instead, it relied on BOC representations that "both voice and data customers will perceive no qualitative differences between AT&T transmissions and those of its competitors -- at least with respect to those portions of the transmissions carried by a [BOC]."[24] In the ACP, the FCC incorporated this definition of equal access service into what became known as Feature Group D (FGD), which consisted of equal digits dialed, access from both rotary and tonal-type telephones, answer supervision, and automatic number identification. (See Chapter 2, Section 2.1.3.)

While the FCC's interpretation of equal access has remained constant, its perception of the value of non-equal access has undergone revisions. Recognizing the inferior quality of the non-premium access connections, Feature Groups A and B (FGA and FGB), the FCC, in the Access Charge Order (1982) provided for a premium charge to AT&T for its premium access connection. (See Chapter 3, Section 3.1.2.) That premium charge was to decline by 25% per year. In the First Reconsideration Order (1983) of its Access Charge Order, the FCC equated the AT&T premium access to an opportunity cost to the OCCs, valued at $2.2 billion, or at a 35% differential on the carrier common line, and scheduled a phased elimination of the differential according to the MFJ-ordered implementation of equal access. (See Chapter 3, Section 3.2.2.) Later, in the Second Reconsideration Order (1984), the

end-user charge, will continue to support the transition to end-user recovery of NTS costs. But the OCCs will not act with as much fervor, as the resultant reductions in interstate toll rates, flowing through the cost savings from deloading NTS costs coupled with their reduced non-premium discount, will lower their margins relative to AT&T. Some state commissions and consumer groups, on the other hand, will continue to oppose end-user charges, but their strength may be undermined by the reductions in interstate toll rates, which more than offset end-user charges for consumers who make toll calls. According to FCC Common Carrier Bureau Chief Albert Halprin, the two-year shift of $3.8 billion from interstate long distance rates to end-user charges has produced total customer savings of $5.3 billion.[3]

A prime example of ambivalent support might come from the LECs. While favoring the transition to end-user charges, their expressed concern was the threat of bypass resulting from high usage-based CCL charges. (See Chapter 3, Section 3.5.2.) But the FCC issued two rulings in 1986, designed to mitigate those concerns. First, in its WATS Access Charge Order,[4] the FCC "froze" the CCL charge on terminating minutes at the existing $.0433 per minute, allowing the originating CCL charges, where it stated that bypass incentives were greatest, to be lowered. In principle, removing much of the NTS costs from the originating CCL charge would make switched access on the originating end more competitive with special access and reduce IXC incentives to bypass the local network with the latter. While this order remains in effect until December 31, 1987, the FCC can always extend it. Second, the FCC set forth guidelines for approving interim alternative NTS recovery proposals, designed to combat bypass, from the LECs.[5] As of June 1986, only NYNEX had acted upon this opportunity. Are the remaining LECs

marketing opportunities equal to those inherent in AT&T's interconnection arrangements.[26]

The petitioners contended that the FCC's equal access transition plan was heavily focused on the deregulation of AT&T, rather than on ensuring an effective competitive environment. They asserted that AT&T still had competitive advantages during the transition to FGD and that FGD, itself, was not the equivalent in value to the access provided AT&T. Without the requested relief, they contended, the FCC's vision of a fiercely competitive long distance market would never achieve fruition. In support of their contention, the petitioners cited a study prepared by Booz, Allen and Hamilton[27] for GTE, which concluded that a successful competitive position for the OCCs requires major investment in the face of decreasing returns. Unless modifications are made to the equal access transition plan that would increase the OCCs' returns on investment, the petitioners asserted, the development of competition in the long distance market would be threatened.

On November 14, 1985, the FCC adopted a Notice of Proposed Rulemaking which, for the most part, rejected the petitioners' requests. In a summary of the Commission's response, it stated:

> We conclude that the record demonstrates that our policies are fundamentally sound and should not be modified in any substantial manner. In particular, we conclude that the requested tariff moratorium is already reflected in our present policies and further action in response to the present petition is therefore unnecessary. For its interstate transmission service offerings, AT&T remains subject to rate regulations under the Communications Act and the full requirements of our tariff review process. We also conclude that granting the petitioners' request to continue the OCC non-premium discount after equal access is available at an end office or to extend some type of discount to the FGD traffic of the OCCs would not serve the public interest. We do conclude, however, that several issues raised by the petitioners do warrant further study.

customers of TS access. If that language is sustained, then they might be able to influence tariff language on billing.

The FCC reaction to the NYNEX filings will signal a new phase in long distance competition, for it will indicate how much influence it is prepared to allow the LECs to have in providing customers with options for long distance. The anxiety over this issue rivals that over the Commission's eventual ruling on the Joint Board's recommendation regarding end-user charges.

To be sure, the FCC will be better prepared than in 1983 if it is called to defend the ACP before Congress, this time being armed with facts from the Joint Board's investigation and its investigation of the NYNEX tariff filing. And what of the role of Congress? Congress will continue to monitor the impacts of the ACP and will review the conclusions drawn from the Joint Board's investigation. But with uncertainty over congressional makeup in an election year[6] and its attention being diverted to BOC antitrust restrictions,[7] it may not take up universal service preservation legislation as it had done in 1983.[8] What is certain is that the FCC, after its embarrassing experience with Congress in 1983, has taken steps, through the Joint Board procedure, to avoid that outcome this time.

6.2. Equal Access and Non-Discriminatory Pricing

The FCC has been far more resolute in the non-discriminatory pricing issue than it has been in the NTS recovery issue. By accepting Feature Group D (FGD) as the physical definition of equal access, the Commission has repeatedly denied OCC requests for extending the OCC discount on access charges beyond the end-office-by-end-office

deployment of FGD as the basis for the discount elimination. Said the Commission:

> The petitioners apparently argue that even assuming access will be equal when all end offices have been converted, the conversion process has subjected the OCCs to handicaps that warrant a reevaluation of the price they pay for such access. If this is the case, the request for an investigation of the value of equal access is merely a repetition of the request that the discount phase-out formula be revised. As previously noted, we have carefully considered and rejected this request in two orders this year. The petitioners have not presented any new information that would provide any basis for changing that decision.[30]

After almost two years of debates, the non-premium discount issue appeared to be over. As the Commission stated:

> We believe it is time, in fact, for all parties to move beyond the question of revising the phase-out of the non-premium discount or establishing a discount for FGD. We believe that industry participants should focus their attention on ensuring that the equal access transition is carried out in an efficient and cost-effective manner. To the extent the carriers encounter serious difficulties, they should bring the specific problems to our attention. We will treat any such filings on a priority basis, and we are prepared, of course, to adopt appropriate remedies for any legitimate grievances that may be presented.[31]

The Commission would go on to address specific grievances (including one discussed in the next subsection), but it became clear that there would not be any major overhaul of the equal access transition plan.

5.2.3. TDX Petition

In another example of venting frustration with the equal access implementation, TDX Systems, Inc., the domestic U.S. resale subsidiary of Cable and Wireless, petitioned the FCC to establish a comprehensive definition of equal access.[32] Reporting a trouble rate in 22% of its FGD lines surveyed, TDX enumerated problems with static, noise, or

Commission increased the discount to 55% and applied it to all access rate elements. (See Chapter 3, Section 3.4.2.) In addition, it provided that the non-premium rate would be phased out on an end-office-by-end-office basis as FGD became available. That decision has subsequently been affirmed twice in the Third (1985) and Fourth (1985) Reconsideration Orders.

5.2.2. Joint OCC Petition

Having failed to obtain relief, in separate forums, for their expressed competitive disadvantages that they were facing with the equal access implementation, several OCCs banded together to consolidate their complaints into one pleading. Specifically, on June 17, 1985, GTE Sprint, US Telecom, Allnet, and USTS filed a joint petition with the FCC requesting the initiation of a rulemaking concerning the transition to competition in the long-distance market.[25] In the pleading, they asked the FCC to declare a moratorium on further action granting AT&T "unreasonable pricing flexibility" (an allusion to AT&T's Reach Out America and ProAmerica pricing plans) and to implement a rulemaking that would establish new policies for the transition to equal access that would: (1) require the BOCs to convert OCC access arrangements to FGD only on a LATA-wide basis with tandem switches in place or, alternatively, require that the OCCs pay FGD rates only when such facilities are in place; (2) order AT&T to make customer marketing data available to the OCCs; (3) require AT&T to permit access by the OCCs to AT&T's "advanced operating systems" that provide 800 service; and (4) reevaluate the validity of the premise that FGD provides OCCs with

> clearly established to be a minimum prerequisite to any conclusion that the market for interexchange services has become competitive.[34]

The FCC did not agree. The Commission denied TDX's petition for a rulemaking by reaffirming the existing standards for defining equal access.[35] Those standards emanated from the "customer perception test" established by the MFJ court.[36] In declining to provide more stringent definitions, the FCC stated that "any more detailed standards would be overly complex, impossible to enforce, and would ignore the fact that [LECs] use different facilities to provide the same services."[37]

The Commission went on to refer five of the specific operational problems, that TDX described, to its Carrier Liaison Committee for investigation and monitoring. It found that most of the other problems were transitional, to be repaired within a few months. The Commission noted that the LECs had demonstrated a commitment to work with the OCCs in correcting the transitional problems.

Thus, the long debate over equal access and the OCC non-premium access came to an unassuming close. With just four months remaining before the completion of the September 1, 1986, MFJ-ordered implementation of equal access, the controversy over its definition, FGD, appeared to be over. As will be seen in the next chapter, the debate will take on a new dimension -- over access to 800 services -- but the FCC could at least point to one major provision of its ACP as being resolved.

> Therefore, we grant in part petitioners' request for a rulemaking proceeding. Specifically, we propose two new requirements that are not now part of the BOCs' equal access obligations, but that may help promote competition in the interstate long distance marketplace. First, we propose that the BOCs waive any non-recurring charges for trunk rearrangements associated with the deployment of access tandems that were requested, but not available, upon conversion of an end office to equal access. Second, we propose that the BOCs provide certain marketing data to the interexchange carriers.[28]

In declining to issue a broad rulemaking on competition, the FCC chose, instead, to rule on specific instances where, it felt, the OCCs were wrongfully disadvantaged. Thus, it asked for comments on waiving non-recurring charges for trunk rearrangements associated with the deployment of access tandems, if those tandems were not available when originally requested by the OCCs. But the FCC refused to rule in favor of the broader issue of delaying the elimination of the non-premium discount until the access tandems were deployed. The Commission did propose a requirement that the BOCs provide the OCCs with certain disaggregated customer usage characteristics, but fell far short of requiring that the BOCs release customer-specific data, which the petitioners claimed they needed to offset AT&T's historical monopolistic accumulation of market data. With respect to the petitioners' request for OCC access to AT&T's 800 database, the Commission deferred to the Bell Atlantic Petition for Rulemaking,[29] where it would later deny OCC or BOC access to AT&T's database (see Chapter 5, Section 5.1.3).

Regarding the LATA-wide deployment of equal access and/or the continuation of the OCC non-premium discount, the FCC pointed to its Third (1985) and Fourth Reconsideration Orders (1985) as demonstration of its adamant opposition to deviating from the end-office-by-end-office

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OPTIONS FOR THE FUTURE

6.1. Resolution of NTS Recovery Issue

In its Decision and Order (1985), in Dockets 78-72 and 80-286,[1] the FCC authorized the implementation of a $1 end-user charge for residential and single-line business subscribers, with a subsequent increase to $2 effective June 1, 1986. It further authorized the Joint Board to initiate investigations, in late 1986, on the impact of these subscriber line charges on universal service, bypass, economic efficiency, and interexchange competition, as a prelude to further changes to end-user charges. The Commission will be relying on the Joint Board to establish a public record that defines the public interest associated with additional end-user charges. Not only does the Joint Board investigation provide a framework for further compromise between stakeholders, but its very existence provides protection against potential conflict with Congress.

The importance of the recommendations emanating from these investigations cannot be overestimated; after the June 1, 1986, increase of end-user charges to $2, there is still some $3.9 billion in annual NTS revenue requirements remaining to be transitioned from IXC recovery to end-user recovery (see Figure 6-1). The question is, will the FCC allow this remaining transition to take place? Indications of that decision will come from the Joint Board recommendations: These recommendations are usually a precursor of the eventual FCC decisions; three of the five FCC commissioners sit on the Joint Board, together with four state commissioners.

transmission problems, calls that complete to a recorded message, delivery of FGD calls to the wrong OCC, "high and drys" (where the customer performs all necessary steps to complete a call and nothing happens), and "low levels," (where the volume of the call becomes so low that the customer complains), as examples of the operational problems it has encountered with FGD. Claiming these operational problems, which they claim AT&T does not experience, to be working toward AT&T's competitive advantage, TDX urged that the FCC "continue to scrutinize closely the pricing strategies of AT&T . . . and be prepared to monitor formally local exchange company establishment and ongoing supply of access services and, if necessary, to institute financial arrangements that will serve to reduce the time span between the ordering of [FGD] capacity, its delivery, and the final step of routine operation."[33] In lieu of perpetuating the OCC non-premium discount, the petition called for penalty provisions in the tariffs relating to delivery intervals.

In calling for a comprehensive definition of equal access, TDX contended:

> Achievement of the goal of a fully competitive inter-exchange telecommunications market requires that equality of access be achieved not only in a static, design-engineering sense, but also in a dynamic, operational sense. The operational difficulties with [FGD] facilities experienced by TDX and described above illustrate dramatically the need for a clear set of enforceable standards for equal access, expressed in terms of design and performance. The Commission is the agency of government best suited to the task of developing, promulgating, and enforcing the necessary standards.
>
> The Commission must ensure that access services provided for OCCs are functionally -- as well as theoretically -- equal in quality to the access services provided to AT&T. Discharge of that responsibility requires a clear statement, in the Commission's rules, of the standards by which access service quality is to be measured. Consistent full compliance with those standards must be

The Joint Board has a number of options in choosing between a continuum of end-user and carrier access charges. However, three alternative recommendations represent the most likely set of outcomes:

1. Continuation of the transition of deloading NTS costs from interstate toll rates to end-user charges, up to a cap of $4 per residential and single business line, until at least 1990. This is the pending guideline of the ACP, per the Second Reconsideration Order (1984) (see Chapter 3, Section 3.4.1), subject to revisions based on Joint Board recommendations. A variation of this alternative is to continue the transition to end-user charges, beyond the $4 cap, as per the First Reconsideration Order (1983) of the ACP, in order to keep pace with an ever-growing per-loop NTS revenue requirement.

2. Keep end-user charges fixed at $2, with the remaining common line revenue requirements recovered from IXCs, via the usage-based CCL charge. The split of the CCL into a frozen terminating charge of $.0433 per minute and a lower originating charge[2] would probably be maintained in order to minimize bypass on the originating end.

3. A compromise of the above options, by increasing the end-user charge to an intermediate level, say $3, subject to additional investigations of the impact of end-user charges on universal service, bypass, network efficiency, and interexchange competition, at some time in the future. While this alternative, at first glance, appears to be a logical compromise, the price for its acceptance is a prolonged uncertainty to closure of the NTS recovery issue.

The positions of the stakeholders have not changed through the years, though their alacrity may have been tempered by previous FCC decisions. IXCs, and AT&T in particular as the architect of the

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OPTIONS FOR THE FUTURE

6.1. Resolution of NTS Recovery Issue

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The importance of the recommendations emanating from these investigations cannot be overestimated; after the June 1, 1986, increase of end-user charges to $2, there is still some $3.9 billion in annual NTS revenue requirements remaining to be transitioned from IXC recovery to end-user recovery (see Figure 6-1). The question is, will the FCC allow this remaining transition to take place? Indications of that decision will come from the Joint Board recommendations: These recommendations are usually a precursor of the eventual FCC decisions; three of the five FCC commissioners sit on the Joint Board, together with four state commissioners.

waiting for the Joint Board to issue its recommendations on end-user charges before deciding on pursuing alternative NTS recovery tariffs?

Of particular note is New England Telephone's response to the FCC's guidelines. The FCC issued guidelines for a direct end-user charge model similar to the proposal originally submitted by New England Telephone. (See Chapter 4, Sections 4.3.1 and 4.3.2.) But the guidelines did not allow for the inclusion of TS and billing costs, along with NTS costs, in the direct end-user charges, which New England had done in its proposal. On June 26, 1986, both NYNEX operating companies, New England Telephone and New York Telephone, filed tariffs for End User Originating Access Service, a direct end-user charge service covering both NTS and TS costs. While the arguments will be couched in terms of pricing flexibility and bypass avoidance, the unstated battle will be over control of the end-user's account. With these filings, the NYNEX companies must be prepared to do battle with the IXCs, who would argue that NYNEX's handling and billing for the customer's telecommunications services up to the IXC's point of presence (POP) would give NYNEX an unfair competitive leverage over the IXCs.

In resolving this issue, the FCC will be forced to reconsider some of the basic tenets of the ACP. In particular, it will have to address the question of whose customer is the end user, and thus who is the customer for TS access charges. Is it the end user who, in making a long distance call, uses LEC TS facilities in reaching the IXC POP (see Figure 2-5)? Or is it the IXC who orders capacity from the LEC's central office to the IXC POP in order to complete long distance calls to the end user? The current language of the ACP suggests the IXCs as

> clearly established to be a minimum prerequisite to any conclusion that the market for interexchange services has become competitive.[34]

The FCC did not agree. The Commission denied TDX's petition for a rulemaking by reaffirming the existing standards for defining equal access.[35] Those standards emanated from the "customer perception test" established by the MFJ court.[36] In declining to provide more stringent definitions, the FCC stated that "any more detailed standards would be overly complex, impossible to enforce, and would ignore the fact that [LECs] use different facilities to provide the same services."[37]

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Thus, the long debate over equal access and the OCC non-premium access came to an unassuming close. With just four months remaining before the completion of the September 1, 1986, MFJ-ordered implementation of equal access, the controversy over its definition, FGD, appeared to be over. As will be seen in the next chapter, the debate will take on a new dimension -- over access to 800 services -- but the FCC could at least point to one major provision of its ACP as being resolved.

deployment of FGD. As FCC Chairman Mark Fowler indicated in a separate statement to the Commission's Notice of Proposed Rulemaking (1986) in CC Docket 85-348, which denied the OCC Joint Petition for revised equal access obligations:

> The rules on access pricing during the transition to full competition were painstakingly crafted in the context of our MTS and WATS Market Structure Inquiry. This proceeding is one of the largest and most comprehensive efforts ever undertaken by a regulatory agency, spanning over 7 years. Throughout this process we have attempted to strike a delicate balance between a number of varied and competing interests. No need is made out here to revisit that balance.
>
> Our policy is to permit competition by all who wish to try to serve the public. All are free to succeed or fail on the basis of their own foresight, skill and industry, and the wishes and desires of consumers. For our part, we recognize that the interexchange carriers other than AT&T need access to local networks equivalent in both price and quality to that afforded AT&T. At the same time, we do not confuse the needs of competitors with our responsibilities to promote competition. A strategy of trying to guarantee the success of all industry participants without regard to their relative efficiency or the economic costs consumers are forced to bear, besides being harmful to consumers, runs the risk of creating the appearance of competition without the reality. Handicapping doesn't benefit consumers -- competition does.
>
> I believe that, as a result of our actions in the past and here today, the future of competition in the long distance telephone market is basically assured. The FCC is committed to taking all action needed to ensure a level playing field. In that context we expect exchange carriers to make the equal access transition as smooth and fair as is humanly possible. We will expeditiously rule on all complaints about procedural impediments to fair competition. Indeed, all competitors in the long distance market would appear to have nothing to fear but competition itself. And consumers, including rural subscribers, have more and more choices -- and nothing to fear at all.[9]

While the equal access definition issue appears to have been settled by this FCC decision, another component of equal access looms as the next major issue in the horizon. The BOCs are developing 800

service databases, similar to AT&T's 800 database, that will enable them to provide the OCCs with 800 service access comparable to AT&T's 800 service. (See Chapter 5, Section 5.1.3.) With the features inherent in these databases, the BOCs will be able to, among other things:

1) screen 800 calls to ensure they are from locations for which the subscriber has paid,

2) offer 800 subscribers access to more than one IXC,

3) offer 800-number translation to standard telephone numbers from which the call is carried over the OCC network, and

4) provide 800 subscribers with least-cost routing capability.

The latter two features would enable the BOCs to service the subscriber directly, and thus interject themselves between the IXCs and the 800 service subscribers and compete with the IXCs for the subscribers' business, i.e., account control. Aside from the question of whether these features violate the MFJ restrictions against the BOCs' providing information and/or interexchange services, there is the question of how the BOCs will recover the costs for the development of the databases. The FCC has initiated a rulemaking proceeding to investigate these questions along with the question of whether it should impose similar 800 access obligations on the independent companies.[10] Specifically, the FCC will look to decide on whether the above features should be either permitted or required, and, if required, whether the developmental costs should be recovered from all IXCs, including AT&T which already has an 800 database.

While the debate will center on 800 service access obligations, the issue of account control is far more crucial to the stakeholders' interests. The BOCs will seek to utilize the capabilities of the 800

database, both to maximize the return on their development costs and to maintain their market by providing new services for 800 service subscribers. The IXCs, already made sapient by the interexchange competitive battles, will be just as vigilant against market share erosion brought by BOC expansion into IXC domain. They will argue that any BOC involvement with IXC selection, for example, least-cost routing, conflicts with the MFJ, especially if the pricing for the feature is bundled with the prices for basic 800 access. AT&T, which has its own 800 database, will argue against having to pay for BOC 800 database features which it doesn't use.

Thus, while the immediate debate is over 800 service access, the account control issue signals a more encompassing controversy -- over the nature of interexchange competition, and who the players of the 1990s will be. If the BOCs' offering of advanced 800 features is the beginning of further erosion of the MFJ restrictions, it should be expected that the BOCs will take full advantage of the situation by marketing more IXC-type services. The questions brought about by that eventuality are obvious. Who will be the winners, or yet, the survivors of a competitive interexchange market if the BOCs are allowed to enter it? What restrictions, if any, should be placed on their entry? These questions will challenge the FCC's commitment to a "level playing field" as articulated in Chairman Fowler's previously quoted comments. Though the questions go beyond the access charge debates, their resolution will have profound implications for the future structure of the ACP. Thus the continuation of the access charge debates into the 1990s is assured.

POSTSCRIPT

This paper describes events surrounding the development of and modifications to the FCC's Access Charge Plan through June 1986. Since that time, subsequent events and rulings may have altered the context of the issues discussed herein, but not their substance. Some of the more important events are:

. On March 12, 1987, the Federal-State Joint Board adopted their Recommended Decision and Order[1] regarding Docket Nos. 78-72 and 80-286. The Joint Board recommended an increase in end-user charges to $2.60 on June 1, 1987; $3.20 on September 1, 1988; and $3.50 on April 1, 1989, or to the amount with which the LECs will recover their full interstate NTS loop costs, whichever is less. Prior to any end-user increases in 1988 and 1989, the Joint Board is to conduct a 90-day study and review of the impacts of end-user charges on telephone penetration and to report the results to Congress and state regulators. In addition, the cost savings to IXCs resulting from this implementation of end-user charges are to be flowed through to customers in the form of lower toll rates. The Joint Board also recommended continuing the federal lifeline assistance program, increasing lifeline benefits proportionately with end-user increases, and adding a lifeline assistance program to offset charges for commencing telephone service. Finally, the Joint Board proposed that the mandatory common line pooling system be replaced by a voluntary pool and a mandatory long-term support fund, effective April 1, 1989.

. On April 16, 1987, the FCC adopted, with modifications, the Joint Board's Recommended Order of March 12, 1987.[2] Specifically, the Commission adopted the recommendation to increase end-user charges by a total of $1.50 per month over 24 months to $3.50 per month. However, it

delayed the initial $.60 increase to July 1, 1987, and the next $.60 increase to December 1, 1988 (instead of September 1, 1988). The first delay was in response to concerns expressed in Congress, and allows for additional time to evaluate data on bypass and telephone usage provided by congressional investigators. The second delay allows for a thorough review and analysis of the effects of the first $.60 increase.

. On January 7, 1987, the FCC released its Memorandum Opinion and Order[3], previously adopted November 25, 1986, denying the New York Telephone Company's and the New England Telephone Company's (NYNEX) End User Originating Access Plan (EUOA), which had been filed on June 26, 1986. The NYNEX EUOA Plan was filed in response to the FCC's order of April 28, 1986, establishing guidelines for alternative interim NTS access charge plans. In its January 7 order, the FCC rejected NYNEX's proposal to recover TS costs directly from the end users primarily because this approach would reduce economic efficiency, as the IXCs will order but have no responsibility to pay for transport facilities for originating access; that is, IXCs could over-order transport facilities. The Commission also pointed out that the provision to apply special access surcharges was counter to the Guidelines Order, as the latter stipulated that special access surcharges were to recover only common line costs. The FCC also reaffirmed its belief that resale opportunities serve as an effective market check on pricing and that the NYNEX resale tariff provisions were "extremely vague". Finally, the Commission did not view as equitable the EUOA exclusion of originating access charges associated with third party, collect, and credit card calls. The FCC stated that it "would be very concerned about any end user plan that did not provide customers the opportunity to place such

calls without causing a charge for originating access to be billed to the local exchange subscriber over whose line the call is placed."

. In March of 1987, in letters to both the FCC and U.S. District Judge Harold H. Greene, MCI criticized the proposed 800 database of the BOCs.[4] In a request that the FCC reopen its Docket 86-10 proceeding on the 800 service database plan, MCI pointed out that information disclosed by Bellcore suggested that features of the proposed plan were anti-competitive and not in the public interest. MCI advised Judge Greene that the services and features provided under the plan are prohibited by the MFJ rstrictions against BOCs' offering information or interexchange services. MCI complained that it had requested Department of Justice action on this matter on December 31, 1986, but that the DOJ had not responded.

. At the same meeting in which it ruled on end-user charges, the FCC adopted certain changes to jurisdictional separations procedures as recommended by the Joint Board. Among the changes (including the renaming of the Part 67 Rules to Part 36) was the elimination of the distinction between TS and NTS equipment of Category 6-Local Dial Switching Equipment, and the assignment of the entire category of costs as a function of DEMs.

. On August 7, 1986, the FCC, as part of its rate-of-return investigation in Docket 84-800, prescribed a target return of 12.2% for AT&T and 12.0% for the LECs for the two-year period commencing January 1, 1987.[5] The differential reflects AT&T's and the LECs' relative financial risks.

NOTES

1.1 The Access Charge Plan is also referred to as the Access Charge Order.

In the Matter of MTS and WATS Market Structure, CC Docket No. 78-72, Phase I [hereinafter cited as MTS and WATS Market Structure Phase I]:

Third Report and Order, 93 FCC 2d 241 (1982) [hereinafter cited as Access Charge Order].

1.2 In the Matter of Allocation of Frequencies in the Bands Above 890 Mc., Docket No. 11866:

Report and Order, 27 FCC 359 (1959);
Memorandum Opinion and Order, 29 FCC 825 (1960).

1.3 In the Matter of Establishment of Policies and Procedures for Consideration of Applications to Provide Specialized Common Carrier Services in the Domestic Public Point-to-Point Microwave Radio Service and Proposed Amendments to Parts 21, 43 and 61 of the Commission's Rules, Docket No. 18920 [hereinafter cited as Specialized Common Carrier Services]:

Notice of Inquiry to Formulate Policy, Notice of Proposed Rule Making, and Order, 24 FCC 2d 318 (1970);
First Report and Order, 29 FCC 2d 870 (1971).

1.4 For background on settlements and division of revenues see Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 3: Federal/State Costing Methods: Who Controls the Dollars. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication P-86-4, June 1986 [hereinafter cited as Behind the Telephone Debates, Volume 3]; and, Samuel M. Epstein, Behind the Telephone Debates, Volume 4: A Conceptual Framework for Pre- and Post-Divestiture Telecommunications Industry Revenue Requirements. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication No. P-85-7, June 1985 [hereinafter cited as Behind the Telephone Debates, Volume 4].

1.4a John T. Wenders, ". . . Now Learn to Love the Chaos," Wall Street Journal, November 29, 1985, at p. 12.

1.5 U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA), Office of Policy Analysis and Development, Telephone Subscribership in the United States: A Post-Divestiture Analysis, Washington D.C., (December 10, 1985).

1.6 Specialized Common Carrier Services, First Report and Order, supra note 1.3.

1.7 Ibid., at paragraph 1.

1.8 Specialized Common Carrier Services, Notice of Inquiry to Formulate Policy, Notice of Proposed Rule Making, and Order, supra note 1.3, at paragraph 40.

1.9 In the Matter of MCI TELECOMMUNICATIONS CORPORATION, Investigation into the Lawfulness of Tariff FCC No. 1 Insofar as it Purports to Offer Execunet Service, Docket No. 20640:

Decision, 60 FCC 2d 25 (1976), at Appendix B, p. 62.

1.10 Ibid.

1.11 MCI Telecommunications Corporation v. FCC, 561 F.2d 365 (D.C. Cir. 1977); cert. denied, 434 U.S. 1040 (1978).

1.12 MCI Telecommunications Corporation v. FCC, 580 F.2d 590 (D.C. Cir. 1978); cert. denied, 439 U.S. 980 (1978).

1.13 In the Matter of Exchange Network Facilities for Interstate Access (ENFIA), CC Docket No. 78-371:

Memorandum Opinion and Order, 71 FCC 2d 440 (1979).

For an analysis of the negotiating process leading to the interim settlement agreement, see Kurt Borchardt, The Exchange Network Facilities for Interstate Access (ENFIA) Interim Settlement Agreement. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication No. P-79-4, August 1979.

1.14 In the Matter of MTS and WATS Market Structure, CC Docket No. 78-72 [hereinafter cited as MTS and WATS Market Structure]:

Notice of Inquiry and Proposed Rulemaking, 67 FCC 2d 757 (1978).

1.15 Ibid., at paragraph 5.

1.16 Ibid., at paragraph 8.

1.17 MTS and WATS Market Structure, supra note 1.14:

Second Supplemental Notice of Inquiry and Proposed Rulemaking, 77 FCC 2d 224 (1980) [hereinafter cited as Second Supplemental Notice].

1.18 FX service normally enables a subscriber to place and receive calls to telephones in the "foreign" exchange without paying MTS charges. The FX subscriber receives two separate bills; one bill is for the interexchange "private line" which provides dedicated service between the FX subscriber's telephone and the termination in a local switching office in the "foreign" exchange, and the other is

for the use of local exchange facilities in the "foreign" exchange. The latter is billed at the business local exchange rate.

1.19 MTS and WATS Market Structure, Second Supplemental Notice, supra note 1.17, at paragraph 31.

1.20 Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 1: At the Heart of the Debates: Costs, Control, and Ownership of the Existing Network. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication No. P-85-6, May 1985 [hereinafter cited as Behind the Telephone Debates, Volume 1].

1.21 U.S. Congress, Senate, Telecommunications Competition and Deregulation Act of 1981, at section 101, p. 5.

Taken from John McGarrity, Implementing Access Charges: Stakeholders and Options. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication No. P-83-2, March 1983 [hereinafter cited as Implementing Access Charges], at footnote 43.

1.22 U.S. Congress, House of Representatives, Telecommunications Act of 1981, H.R. 5158, 97th Congress, 1st Session, December 10, 1981, at section 101, pp. 2-3.

Taken from Implementing Access Charges, supra note 1.21, at footnote 44.

1.23 MTS and WATS Market Structure, supra note 1.14:

> Fourth Supplemental Notice of Inquiry and Proposed Rulemaking, 90 FCC 2d 135 (1982) [hereinafter cited as Fourth Supplemental Notice].

1.24 Ibid., at page 136.

1.25 Ibid., at page 140.

1.26 Ibid.

1.27 Ibid., at page 146.

1.28 United States v. American Telephone and Telegraph Co., Modification of Final Judgment, Civil Nos. 74-1698 and 82-0192, 552 F.Supp. 131 (D.D.C. 1982), aff'd mem., 103 S.Ct. 1240 (1983) [hereinafter cited as Modification of Final Judgment].

1.29 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 11.

1.30 Implementing Access Charges, supra note 1.21, at pp. 77-79.

1.31 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 25.

2.1 Ibid., at Appendix A, p. 3.

2.2 For a detailed description of the facilities involved with the provision of access services, see Behind the Telephone Debates, Volume 1, supra note 1.20, at pp. 25-70.

2.3 In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), FCC Docket No. 20828 [hereinafter cited as Computer Inquiry II]:

Notice of Inquiry and Proposed Rulemaking, 61 FCC 2d 103 (1976);
Supplemental Notice of Inquiry and Enlargement of Proposed Rulemaking, 64 FCC 2d 771 (1977);
Tentative Decision, 72 FCC 2d 358 (1979);
Final Decision, 77 FCC 2d 384 (1980);
Memorandum Opinion and Order, 84 FCC 2d 50 (1980);
Memorandum Opinion and Order on Further Reconsideration, 88 FCC 2d 512 (1981);
aff'd sub nom., Computer and Communications Industry Association v. FCC, 693 F.2d 198 (D.C. Cir. 1982);
cert. denied, 461 U.S. 938 (1983);
Report and Order, 49 Fed. Reg. 3917 (January 31, 1984);
Memorandum Opinion and Order, FCC No. 84-190, Slip Opinion (May 4, 1984).

2.4 Behind the Telephone Debates, Volume 1, supra note 1.20, at p. 45.

2.5 Wisconsin Public Service Commission, Hearings, In Re: Investigation of Intrastate Interexchange Access Charges and Related IntraLATA and InterLATA Compensation Matters, Docket No. 05-TR-5, Testimony of Ben Johnson [hereinafter cited as Johnson Testimony], at p. 11.

2.6 Carol Weinhaus and Anthony G. Oettinger, Behind the Telephone Debates, Volume 2: Concepts: Understanding Debates Over Competition and Divestiture. Program on Information Resources Policy, Harvard University, Cambridge, MA, P-87-3, July 1987 [hereinafter cited as Behind the Telephone Debates, Volume 2], at Figure 25, p. 48.

2.7 Johnson Testimony, supra note 2.5, at p. 12.

2.8 Adapted from 1983 data from the Federal Communications Commission (FCC), Common Carrier Bureau, 1985 [hereinafter cited as FCC Data].

2.9 Behind the Telephone Debates, Volume 2, supra note 2.6, at p. 47. NTS plant represents 72.3% of pre-divestiture AT&T local plant costs. Allowing for the fact that this figure does not include trunk plant providing access to an interexchange carrier's point of presence (POP) FGB suggests a lowering of the figure to 71.8%.

Applying this figure to the $25.5 billion NTS figure results in a $10 billion TS estimate.

2.10 Behind the Telephone Debates, Volume 2, supra note 2.6, at pp. 56-69.

2.11 Ibid., at p. 69.

2.12 MTS and WATS Market Structure Phase I, supra note 1.1:

Memorandum Opinion and Order, 97 FCC 2d 682 (1983) [hereinafter cited as First Reconsideration Order], at paragraph 103, pp. 727-728.

2.13 Implementing Access Charges, supra note 1.21, at pp. 106-108.

2.14 MTS and WATS Market Structure Phase I, First Reconsideration Order, supra note 2.12, at paragraph 91, p. 723.

2.15 Modification of Final Judgment, supra note 1.28.

2.16 Equal access is defined as that which is "equal in type, quality, and price to that provided to AT&T and its affiliates." Ibid., at p. 227.

2.17 In the Matter of MTS and WATS Market Structure Phase III: Establishment of Physical Connections and Through Routes Among Carriers; Establishment of Physical Connections by Carriers with Non-Carrier Communications Facilities; Planning Among Carriers for Provision of Interconnected Services, and in Connection with National Defense and Emergency Communications Services; and Regulations for and in Connection with the Foregoing, CC Docket No. 78-72, Phase III:

Report and Order, 100 FCC 2d 860 (1985).

2.18 National Exchange Carrier Association, Inc. (NECA), Access Service Tariff FCC No. 1, Volume 3: Development of Baseline Access Element Revenue Requirement, Whippany, NJ, July 2, 1985 [hereinafter cited as NECA Tariff].

2.19 Communications Act of 1934, 48 Stat 1064, Pub. L. No. 416 (1934). (Codified at 47 USC Section 151 et seq.).

2.20 National Association of Regulatory Utility Commissioners (NARUC), NARUC-FCC Committee on Communications, Separations Manual: Standard Procedures for Separating Telephone Property Costs, Revenues, Expenses, Taxes and Reserves, Washington, D.C., February 1971, 47 CFR 67 (revised as of October 1, 1982).

2.20a Peter Temin and Geoffrey Peters, "Is History Stranger Than Theory? The Origin of Telephone Separations," The American Economic Review, Vol. 75, No. 2, May 1985 [hereinafter cited as The Origin of Telephone Separations], at pp. 324-327.

2.20b Ibid., at p. 324.

2.21 In the Matter of Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, CC Docket No. 80-286 [hereinafter cited as Amendment of Part 67]:

Notice of Proposed Rulemaking and Order Establishing a Joint Board, 78 FCC 2d 837 (1980). Convened a Joint Board to consider issues involving the allocation of exchange plant investment between interstate and intrastate services;

Order Inviting Comments and Suggested Information Requests, 46 Fed. Reg. 32281 (June 22, 1981). The Joint Board solicited responses to a specific proposal to remove CPE from the separations process;

Recommended Decision and Order, 46 Fed. Reg. 63344 (December 31, 1981). The Joint Board proposed a plan for the gradual removal of CPE from the separations process. The intent of the plan was to facilitate the implementation of the FCC's policies regarding detariffing of CPE as set forth in Computer Inquiry II (supra note 2.3) and to ensure that the detariffing did not result in abrupt rate increases. Under the plan, no investment or expenses associated with CPE incurred after December 31, 1982, would be allocated to interstate operations. The amounts in the CPE plant accounts on the books as of that date, and the average amounts in related expense accounts for the previous year, would constitute a "base amount" for separations purposes. The base amount would be reduced at the rate of one sixtieth per month for a maximum of five years.

Further Notice of Proposed Rulemaking, 46 Fed. Reg. 63357 (December 31, 1981). Established an expedited schedule for comments and replies on the Joint Board's Recommended Decision and Order on CPE;

Decision and Order, 89 FCC 2d 1 (1982). Adopts the Joint Board's recommendations in the Recommended Decision and Order on CPE subject to certain clarifications and modifications.

Recommended Order, 89 FCC 2d 607 (1982). The Joint Board recommended an amendment to the phase-out plan which would allow individual states to approve or mandate an early freeze date for the identification of the CPE base amount by carriers under their jurisdiction to facilitate the initiation of CPE sales to subscribers prior to January 1, 1983;

Second Further Notice of Proposed Rulemaking, 89 FCC 2d 604 (1982). Invited comments as to the general value of amendment, the effect its adoption might have on states or carriers which did not choose to advance the CPE freeze date, and on the integrity of the separations process;

Decision and Order, 90 FCC 2d 52 (1982). Adopts the Joint Board's Recommended Order;

Memorandum Opinion and Order, 91 FCC 2d 558 (1982). Denies reconsideration of the CPE phase-out plan;

Recommended Decision and Order, 50 Fed. Reg. 47774 (November 20, 1985). The Joint Board recommends that the CPE phase-out plan remain unchanged;
Decision and Order, 51 Fed. Reg. 7942 (March 7, 1986). Adopts the Joint Board's Recommended Decision and Order refusing to expand the CPE phase-out plan to include additional CPE-related costs.

2.22 In the Matter of Amendment of Part 31, Uniform System of Accounts for Class A and Class B Telephone Companies, of the Commission's Rules and Regulations with Respect to Accounting for Station Connections, Optional Payment Plan Revenues and Related Capital Costs, Customer Provided Equipment and Sale of Terminal Equipment, CC Docket No. 79-105 [hereinafter cited as Amendment of Part 31, USOA]:

Notice of Proposed Rulemaking, 44 Fed. Reg. 48988 (August 21, 1979);
First Report and Order, 85 FCC 2d 818 (1981);
Further Notice of Inquiry, 86 FCC 2d 885 (1981);
Memorandum Opinion and Order, 89 FCC 2d 1094 (1982);
Memorandum Opinion and Order, 92 FCC 2d 864 (1982);
aff'd, Virginia State Corp. Comm. v. FCC, 737 F.2d 388 (4th Cir. 1984);
Further Notice of Proposed Rulemaking, 50 Fed. Reg. 13991 (April 9, 1985);
Final Rule: Summary of Report and Order, 51 Fed. Reg. 8498 (March 12, 1986).

2.23 FCC Data, supra note 2.8.

2.24 MTS and WATS Market Structure, supra note 1.14:

Comments of American Telephone and Telegraph Company and the Bell System Associated Companies, March 3, 1980, at Table II-5, pp. 92-93.

Taken from Behind the Telephone Debates, Volume 3, supra note 1.4, at footnote 57.

2.25 For a detailed description of SLU and SPF, see Behind the Telephone Debates, Volume 3, supra note 1.4, at sections VI-VII.

2.26 FCC Data, supra note 2.8.

2.27 Behind the Telephone Debates, Volume 3, supra note 1.4, at section IIID.

2.28 Ibid., at section VB.

2.29 MTS and WATS Market Structure, Fourth Supplemental Notice, supra note 1.23.

2.30 Amendment of Part 67, supra note 2.21:

Recommended Interim Order, 46 Fed. Reg. 63354 (December 31, 1981). The Joint Board recommended the imposition, on January 1, 1982, of a percentage freeze of subscriber plant factor (SPF). The freeze was to be effected through an amendment to the Separations Manual specifying that the annual average interstate SLU ratio for the study area for the calendar year 1981 would be used in the SPF formula;

Further Notice of Proposed Rulemaking, 46 Fed. Reg. 63357 (December 31, 1981). Established an expedited schedule for comments and replies on the Joint Board's Recommended Interim Order on SPF;

Decision and Order, 89 FCC 2d 1 (1982). Adopts the Joint Board's recommendations in the Recommended Interim Order on SPF subject to certain clarifications and modifications;

Second Recommended Decision and Order, 48 Fed. Reg. 46556 (October 13, 1983). Proposed replacing the frozen SPF as the basis for allocating most NTS plant. Instead, a 25% interstate allocation factor would be uniformly applied in all study areas. The transition from frozen SPF to the 25% base factor apportionment would begin in 1986 and would be implemented in four steps;

Decision and Order, 96 FCC 2d 781 (1984). Adopted the Joint Board's recommendation in the Second Recommended Decision and Order with minor changes, the most significant of which involved the expansion of the plant categories considered in determining whether a study area qualifies for, and calculating any, additional interstate allocation.

2.31 For a discussion of the implications of alternative assignment variables, see William J. Cunningham, "The Separation of Railroad Operating Expenses Between Freight and Passenger Services," The Quarterly Journal of Economics, Vol. XXXI, No. 2, February 1917, at p. 209.

2.32 Amendment of Part 67, supra note 2.21.

2.33 Amendment of Part 31, USOA, supra note 2.22.

2.34 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 128.

2.35 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Recommended Decision and Order, 49 Fed. Reg. 48325 (December 12, 1984). Recommends subscriber line charges for residential and single line business customers, tariff flexibility to combat bypass, assistance to aid small companies or high cost companies, and assistance for lifeline service;

Decision and Order, 50 Fed. Reg. 939 (January 8, 1985). Adopts the Joint Board recommendations in the Recommended Decision and Order with a few minor changes.

2.36 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at note 75.

2.37 Behind the Telephone Debates, Volume 2, supra note 2.6, at pp. 45-47.

2.42 MTS and WATS Market Structure Phase I, First Reconsideration Order, supra note 2.12, at paragraph 75, p. 711.

2.43 MTS and WATS Market Structure Phase I, supra note 1.1:

Memorandum Opinion and Order, 97 FCC 2d 834 (1984) [hereinafter cited as Second Reconsideration Order], at pp. 852-63.

2.44 MTS and WATS Market Structure Phase I, supra note 1.1:

Opinion and Order, 101 FCC 2d 1222 (1985) [hereinafter cited as Third Reconsideration Order], at paragraph 15, pp. 1232-3.

2.45 Ibid., at paragraph 18, pp. 1233.4.

2.46 In the Matter of NATIONAL EXCHANGE CARRIER ASSOCIATION,INC.; Revisions to Tariff FCC No. 1; NORTHWESTERN BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 52; PACIFIC NORTHWEST BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 8; BELL OF PENNSYLVANIA; Revisions to Tariff FCC No. 41; CHESAPEAKE & POTOMAC TELEPHONE COMPANIES; Revisions to Tariff FCC No. 38; NEW JERSEY BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 3; ILLINOIS BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 43; WISCONSIN BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 39; OHIO BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 38; MICHIGAN BELL TELEPHONE COMPANY; Revisions to Tariff FCC No. 38;

Memorandum Opinion and Order, Slip Opinion (August 23, 1985), at paragraph 8.

2.47 Ibid., at paragraph 17.

2.48 Telecommunications Reports, Vol. 51, No. 17, April 29, 1985, at p. 17.

2.49 Federal Communications Commission, Material to be Submitted with Letters of Transmittal, 47 CFR 61.38 (revised as of October 1, 1984).

2.50 In the Matter of Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor, CC Docket No. 79-252:

Notice of Inquiry and Proposed Rulemaking, 77 FCC 2d 308 (1979);
First Report and Order, 85 FCC 2d 1 (1980);
Further Notice of Proposed Rulemaking, 84 FCC 2d 445 (1981);
Second Further Notice of Proposed Rulemaking, 47 Fed. Reg. 17308 (April 22, 1982);
Second Report and Order, 91 FCC 2d 59 (1982);
Order on Reconsideration, 93 FCC 2d 54 (1983);
Third Further Notice of Proposed Rulemaking, 48 Fed. Reg. 28292 (June 21, 1983);
Third Report and Order, 48 Fed. Reg. 46791 (October 15, 1983);
Fourth Report and Order, 95 FCC 2d 554 (1983);
Fourth Further Notice of Proposed Rulemaking, 96 FCC 2d 922 (1984);
Fifth Report and Order, 98 FCC 2d 1191 (1984);
Sixth Report and Order, 99 FCC 2d 1020 (1985);
vacated sub nom., MCI Telecommunications Corp. v. FCC, 765 F.2d 1186 (D.C. Cir. 1985);
Order on Reconsideration of Fifth Report and Order, 59 RR 2d 543 (1985).

2.51 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 314.

2.52 Ibid., at paragraphs 339-344.

2.53 Behind the Telephone Debates, Volume 3, supra note 1.4, at section VI.

For a more detailed discussion of the administration of access revenue pools, see Behind the Telephone Debates, Volume 4, supra note 1.4, at pp. 180-192.

2.54 Telecommunications Reports, Vol. 51, No. 44, November 4, 1985, at pp. 10-12.

3.0 J. Edward Laboy, Capital Recovery in the Telecommunications Industry: Issues for the '80s. Program on Information Resources Policy, Harvard University, Cambridge, MA, Publication P-86-10, December 1986.

3.1 MTS and WATS Market Structure Phase I, First Reconsideration Order, supra note 2.12, at paragraph 3.

3.2 Modification of Final Judgment, supra note 1.28, Appendix B, Section B, at paragraphs 1-2.

3.3 MTS and WATS Market Structure, Second Supplemental Notice, supra note 1.17, at paragraph 62.

3.4 MTS and WATS Market Structure, Fourth Supplemental Notice, supra note 1.23.

3.5 Jim Rohwer, "The World on the Line," The Economist, November 23, 1985, at p. 6.

3.6 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 78.

3.7 Ibid., at paragraph 80.

3.8 Ibid., at paragraph 173.

3.9 MTS and WATS Market Structure, Fourth Supplemental Notice, supra note 1.23, at paragraph 14.

3.10 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 122.

3.11 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Recommended Decision and Order, Decision and Order, supra note 2.35.

3.12 MTS and WATS Market Structure Phase I, Access Charge Order, supra note 1.1, at paragraph 135.

3.13 Ibid., at paragraph 186.

3.14 Amendment of Part 67, supra note 2.21.

3.15 MTS and WATS Market Structure Phase I, First Reconsideration Order, supra note 2.12.

3.16 Ibid., at paragraph 7.

3.17 Ibid., at paragraph 27.

3.18 Ibid., at paragraph 29.

3.19 Ibid., at paragraph 96.

3.20 While the FCC acknowledged the superior features of Feature Group B and Feature Group C, it cited their high cost and lack of widespread availability as limiting their value. Thus only Feature Group A was used to compute the differential. Ibid., at paragraph 101.

3.21 Ibid., at paragraph 107.

3.22 MTS and WATS Market Structure, Second Supplemental Notice, supra note 1.17, at p. 241.

3.23 Telecommunications Reports, Vol. 49, No. 21, May 30, 1983.

3.24 U.S. Congress, Senate, Universal Telephone Service Preservation Act of 1983, 98th Congress, 1st Session, October 7, 1983 [hereinafter cited as S. 1660], at p. 5.

3.25 In the Matter of Investigation of Access and Divestiture Related Tariffs, CC Docket No. 83-1145 [hereinafter cited as Access and Divestiture Related Tariffs]:

Memorandum Opinion and Order, 48 Fed. Reg. 49918 (October 28, 1983).

3.26 Telecommunications Reports, Vol. 49, No. 42, October 24, 1983, at p. 2.

3.27 Steve Pressman, "Panel Approves Phone Bill Despite AT&T Lobby Drive," Congressional Quarterly Weekly Report, Vol. 41, No. 43, October 19, 1983, at p. 2241.

3.28 Telecommunications Reports, Vol. 49, No. 45, November 14, 1983, at p. 4.

3.29 Letter of Mark Fowler, Chairman, Federal Communications Commission (FCC) to James T. Broyhill and Don Ritter, December 5, 1983.

3.30 S. 1660, supra note 3.24, at p. 7.

3.31 "S-1660 Faltering? Dole Poses Challenge to S-1660 with Letter to FCC Signed by 32 Senators," Communications Daily, Vol. 4, No. 13, January 19, 1984, at p. 2.

3.32 Federal Communications Commission (FCC), News Release, No. 17831, January 19, 1984.

3.33 Federal Communications Commission (FCC), News Release, No. 17839, January 25, 1984.

3.34 Robert Rothman, "Charges Postponed Until 1985: Senate Buries Telephone Bill after FCC Delays Access Fees," Congressional Quarterly Weekly Report, Vol. 42, No. 4, January 28, 1984, at p. 129.

3.35 Ibid.

3.35a U.S. Congress, House of Representatives, Committee on Energy and Commerce, Report No. 98-479 on Universal Telephone Service Preservation Act of 1983, H.R. 4102, 98th Congress, 1st Session, November 3, 1983.

3.35b Ibid., at p. 19.

3.35c John D. Dingell and Timothy R. Wirth, "The Great Phone Robbery," The Washington Post, October 26, 1983, at p. A27.

3.35d Richard H. K. Vietor and Dekkers L. Davidson, "Economics and Politics of Deregulation: The Issue of Telephone Access Charges," Journal of Policy Analysis and Management, Vol. 5, No. 1, 3-22 (1985) [hereinafter cited as The Issue of Telephone Access Charges].

3.36 MTS and WATS Market Structure Phase I, Second Reconsideration Order, supra note 2.43.

3.37 Ibid., at paragraph 5.

3.38 Ibid., at paragraph 10.

3.39 Ibid., at paragraph 11.

3.40 Ibid., at paragraph 12.

3.41 Ibid., at paragraph 16.

3.42 Ibid., at paragraph 18.

3.43 Ibid., at paragraph 62.

3.44 Ibid., at paragraph 77.

3.45 Ibid., at paragraph 86.

3.46 Access and Divestiture Related Tariffs, supra note 3.25; and MTS and WATS Market Structure Phase I, supra note 1.1:

Memorandum Opinion and Order, 98 FCC 2d 730 (1984).

3.47 Access and Divestiture Related Tariffs, Memorandum Opinion and Order, supra note 3.25, at paragraph 10.

3.48 Telephony, June 13, 1983, at p. 15.

3.49 National Association of Regulatory Utility Commissioners (NARUC) v. FCC, Civil Nos. 83-1225, 83-1329, 83-1439, 83-1463, 83-1954, 83-1984, 83-1995, 83-2016, 83-2108, 83-2168 and 83-2218, 737 F.2d 1095 (D.D.C. 1984), cert. denied, 105 S.Ct. 1224 (1985).

3.50 National Association of Regulatory Utility Commissioners (NARUC), Proceedings of 96th Annual Convention, Los Angeles, CA, November 26-29, 1984, at pp. 1608-09.

3.50a Supra note 3.49 at p. 1112.

3.51 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Further Notice of Proposed Rulemaking, 49 Fed. Reg. 18318 (April 30, 1984).

3.52 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Decision and Order, supra note 2.35.

3.53 Ibid., at paragraph 3.

3.54 Access and Divestiture Related Tariffs, supra note 3.25; and MTS and WATS Market Structure Phase I, supra note 1.1:

Memorandum Opinion and Order, 49 Fed. Reg. 23924 (June 8, 1984).

3.54a MTS and WATS Market Structure Phase I, First Reconsideration Order, supra note 2.12, at paragraph 29.

3.55 In the Matter of MTS and WATS Market Structure and Public Notice No. 3206 Seeking Data, Information and Studies Relating to Bypass of the Public Switched Network, CC Docket No. 78-72, Phase I:

Order, FCC 84-635, Slip Opinion (January 18, 1985) [hereinafter cited as Bypass Report].

3.56 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Decision and Order, supra note 2.35, at paragraph 3.

3.57 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Memorandum Opinion and Order, 50 Fed. Reg. 13023 (April 2, 1985) [hereinafter cited as Optional Alternative Tariff Order].

3.58 Ibid., at paragraph 3.

3.59 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Order Inviting Comments, 50 Fed. Reg. 2833 (January 22, 1985).

3.60 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Decision and Order, 50 Fed. Reg. 47746 (November 20, 1985).

3.61 Telecommunications Reports, Vol. 51, No. 28, July 15, 1985, at pp. 5-7.

3.62 In the Matter of Petition for Waiver of Commission Rules 69.205 and 69.206:

Petition of the Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company, October 15, 1985.

3.63 Ibid., at p. 1.

3.64 Access and Divestiture Related Tariffs, supra note 3.25:

Memorandum Opinion and Order, 97 FCC 2d 1082 (1984).

3.65 MTS and WATS Market Structure Phase I, supra note 1.1; and Access and Divestiture Related Tariffs, supra note 3.25:

American Telephone and Telegraph Company Emergency Petition for Reconsideration, February 27, 1985.

3.66 Ibid., at p. 19.

3.67 Ibid.

3.68 Access and Divestiture Related Tariffs; and MTS and WATS Market Structure Phase I, Memorandum Opinion and Order, supra note 3.54.

3.69 In the Matter of Authorized Rates of Return for the Interstate Services of AT&T Communications and Exchange Telephone Carriers, CC Docket No. 84-800 [hereinafter cited as Authorized Rates of Return]:

Notice of Proposed Rulemaking, 49 Fed. Reg. 32781 (August 17, 1984).

3.70 Authorized Rates of Return, supra note 3.69:

Supplemental Notice of Proposed Rulemaking, 50 Fed. Reg. 33786 (August 21, 1985).

3.71 MTS and WATS Market Structure Phase I, Third Reconsideration Order, supra note 2.44, at paragraph 13.

3.72 MTS and WATS Market Structure Phase I, supra note 1.1; and Access and Divestiture Related Tariffs, supra note 2.35:

Petition for Clarification, February 21, 1985.

3.73 MTS and WATS Market Structure Phase I, Third Reconsideration Order, supra note 2.44, at footnote 40.

3.74 United States v. Western Electric, 578 F.Supp. 668 (D.D.C. 1983), at p. 676.

3.75 Access and Divestiture Related Tariffs, supra note 3.25:

Memorandum Opinion and Order, 101 FCC 2d 911 (1985).

3.76 Ibid., at paragraph 21.

4.1 Behind the Telephone Debates, Volume 3, supra note 1.4, at section IIB.

4.2 The Issue of Telephone Access Charges, supra note 3.35d.

4.3 James W. Sichter, Separations Procedures in the Telephone Industry: The Historical Origins of a Public Policy. Program on Information Resources Policy, Harvard University, Cambridge, MA,

Publication No. P-77-2, January 1977 [hereinafter cited as Separations Procedures, Historical Origins].

4.4 The Origin of Telephone Separations, supra note 2.20a.

4.5 Separations Procedures, Historical Origins, supra note 4.3, at pp. 39-40.

4.6 The Origin of Telephone Separations, supra note 2.20a, at p. 325.

4.7 Smith v. Illinois Bell Telephone Co., 282 U.S. 133 (1930) [hereinafter cited as Smith v. Illinois Bell] at pp. 150-151.

4.8 Separations Procedures, Historical Origins, supra note 4.3, at p. 73.

4.9 Lindheimer v. Illinois Bell Telephone Co., 292 U.S. 151 (1934) [hereinafter cited as Lindheimer v. Illinois Bell].

4.10 Separations Procedures, Historical Origins, supra note 4.3,at p. 100.

4.11 Ibid., at p. 107.

4.12 Department of Public Service of Washington v. The Pacific Telephone and Telegraph Company, 37 Public Utilities Reports (New Series) 129 (1941) at p. 150.

4.13 Separations Procedures, Historical Origins, supra note 4.3, at p. 110.

4.14 Behind the Telephone Debates, Volume 3, supra note 1.4, at section IID.

4.15 National Association of Regulatory Utility Commissioners (NARUC), Separations Manual: Standard Procedures for Separating Telephone Property, Revenues and Expenses, Washington D.C., October 1947 [hereinafter cited as 1947 Separations Manual].

4.16 Amendment of Part 67, supra note 2.30.

4.17 Fourth Supplemental Notice, supra note 1.23.

4.18 Behind the Telephone Debates, Volume 3, supra note 1.4, at section VIIC.

4.19 Access Charge Order, supra note 1.1, at paragraph 61.

4.21 Johnson Testimony, supra note 2.5.

4.22 Ibid., at p. 16.

4.23 Ibid., at p. 17.

4.24 Arizona Corporation Commission, Hearings, In the Matter of the Application of the Mountain States Telephone and Telegraph Company, a Colorado Corporation, for a Hearing to Determine the Earnings of the Company, the Fair Value of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Develop Such Return, Docket No. E-1051-84-100, Rebuttal Testimony of John T. Wenders, Exhibit No. 8-A.

4.25 Ibid., at p. 5.

4.26 Ibid., at p. 8.

4.27 Ibid., at p. 9.

4.28 Ibid., at p. 12.

4.29 Access Charge Order, supra note 1.1, at paragraph 121.

4.30 Albert Halprin, Chief, Common Carrier Bureau, Federal Communications Commission, "Telephone Rate Reform: A Lesson in Political Policymaking," delivered at seminar sponsored by the Program on Information Resources Policy, Harvard University, Cambridge, MA, March 4, 1985.

4.31 The Issue of Telephone Access Charges, supra note 3.35d.

4.32 Colorado Public Service Commission, City of Denver: Value of Service Telephone Pricing (1924); cited in The Issue of Telephone Access Charges, supra note 3.35d, at note 2.

4.33 Behind the Telephone Debates, Volume 4, supra note 1.4, at p. 17.

4.34 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Recommended Decision and Order, Decision and Order, supra note 2.35.

4.35 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

> Decision and Order, FCC No. 85-643, Slip Opinion (December 27, 1985).

4.36 Behind the Telephone Debates, Volume 3, supra note 1.4, at chapter X.

The simulator reflects costs assigned interstate via the Part 67 Rules and allocated to the base factor portion of the common line element via Part 69 Rules. Accordingly, it does not reflect additional costs assigned to the common line element as a result of the application of high cost factors for purposes of establishing the Universal Service Fund.

4.37 Ibid., at section VI.

4.38 Access Charge Order, supra note 1.1, at paragraph 332.

4.39 Behind the Telephone Debates, Volume 3, supra note 1.4, at section XD.

4.40 Ibid.

4.41 In the Matter of Petition to Amend Part 69 of the Commission's Rules Concerning the Mandatory NECA Pool:

Bell Atlantic Petition to Amend Part 69 of the Commission's Rules, October 28, 1985.

4.42 In the Matter of Bell Atlantic's Petition to Amend Part 69 of the Commission's Rules Concerning the Mandatory NECA Pool:

Comments of Shenandoah Telephone Company, December 9, 1985.

4.43 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Decision and Order, supra note 2.35, at note 7.

4.44 Behind the Telephone Debates, Volume 3, supra note 1.4, at section VI.

4.45 Telecommunications Reports, Vol. 52, No. 16, April 21, 1986, at p. 12.

4.46 Optional Alternative Tariff Order, supra note 3.57.

4.47 In the Matter of Petition for Waiver of the Commission's Rules 69.205 and 69.206:

Bell Atlantic Petition for Waiver, October 28, 1985 [hereinafter cited as Bell Atlantic Part 69 Waiver Petition].

4.48 In the Matter of Petition for Waiver of Commission Rules 69.205 and 69.206:

Petition of the Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company, October 15, 1985.

4.49 In the Matter of Petition for Waiver of Sections 69.115, 69.205 and 69.206 of the Commission's Rules:

BellSouth Corporation Petition for Waiver, December 18, 1985 [hereinafter cited as BellSouth Part 69 Waiver Petition].

4.50 M. J. Miller,"NTS Recovery: The Elusive Commitment," presented at Bellcore sponsored "Economic Alternatives for NTS Cost Recovery" meeting, Salt Lake City, UT, January 15-17, 1986.

4.51 In the Matter of Petition for Waiver of Sections 69.115, 69.205 and 69.206 of the Commission's Rules:

New England Telephone & Telegraph Company Petition for Waiver, December 3, 1985 [hereinafter cited as New England Telephone Part 69 Waiver Petition].

4.52 Ibid., at p. 1-17.

4.53 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21:

Decision and Order, FCC No. 85-655, Slip Opinion (January 7, 1986).

4.54 WATS-Related and Other Amendments of Part 69 of the Commission's Rules, CC Docket No. 86-1:

Report and Order, FCC No. 86-115, Slip Opinion (March 21, 1986) [hereinafter cited as WATS Access Charge Order].

4.55 In the Matter of Petition for Waiver of Rules Necessary to File an Experimental Access Service Tariff:

Rochester Telephone Corporation Petition for Waiver, January 16, 1986.

4.56 Ibid., at p. 2.

4.57 Optional Alternative Tariff Order, supra note 3.57.

4.58 In the Matter of Petitions by US West Operating Companies and Bell Atlantic for Waiver of the Commission's Rules 69.205 and 69.206 [hereinafter cited as US West/Bell Atlantic Part 69 Waiver Petition]:

Comments of Aeronautical Radio, Inc., November 29, 1985, at pp. 6-7.

4.59 BellSouth Part 69 Waiver Petition, supra note 4.49; and US West/Bell Atlantic Part 69 Waiver Petition, supra note 4.58:

BellSouth Reply Comments at p. 7; US West Reply Comments at pp. 11-12; cited in FCC No. 86-145, Slip Opinion (April 28, 1986), at note 64.

4.60 BellSouth Part 69 Waiver Petition, supra note 4.49:

Comments of American Telephone & Telegraph Company, January 27, 1986, at pp. 10-11.

4.61 New England Telephone Part 69 Waiver Petition, supra note 4.51:

AT&T Comments at pp. 10-15; cited in FCC No. 86-145, Slip Opinion (April 28, 1986), at note 286.

4.62 New England Telephone Part 69 Waiver Petition, supra note 4.51:

MCI Comments at p. 12; cited in FCC No. 86-145, Slip Opinion (April 28, 1986), at note 287.

4.63 US West/Bell Atlantic Part 69 Waiver Petition, supra note 4.58:

Florida Office of Public Counsel, et al., Reply Comments at p. 4; cited in FCC No. 86-145, Slip Opinion (April 28, 1986), at note 169.

4.64 WATS Access Charge Order, supra note 4.54.

4.65 Telecommunications Reports, Vol. 52, No. 13, March 31, 1986, at p. 2.

4.66 Ibid., at p. 6.

4.67 Ibid., at p. 3.

4.68 Ibid.

4.69 Ibid., at p. 2.

4.70 In the Matter of Petitions for Waiver of Various Sections of Part 69 of the Commission's Rules, Filed by the Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company, Pacific Northwest Bell Telephone Company, The Bell Atlantic Telephone Companies, Pacific Bell, New England Telephone and Telegraph Company, and BellSouth Corporation:

Memorandum Opinion and Order, FCC No. 86-145, Slip Opinion (April 28, 1986).

4.71 Ibid., at paragraph 146.

4.72 Ibid., at paragraph 147.

4.73 Ibid., at paragraphs 148-149.

4.74 Ibid., at paragraph 144.

4.75 Telecommunications Reports, supra note 3.61.

4.76 MTS and WATS Market Structure Phase I; and Amendment of Part 67, Decision and Order, supra note 3.60.

4.77 Telecommunications Reports, Vol. 52, No. 15, April 14, 1986, at p. 5.

5.1 Modification of Final Judgment, supra note 2.15, Appendix B, Section A, at paragraph 1.

5.2 Second Reconsideration Order, supra note 2.44, at paragraph 80.

5.3 United States v. Western Electric Company, Inc.; United States v. American Telephone and Telegraph Company, et al., Civil Action No. 82-0192, 569 F.Supp 1057 (D.D.C. 1983) [hereinafter cited as U.S. v. AT&T, 1983 Opinion on Reorganization].

5.4 Ibid., at p. 16.

5.5 Ibid., at pp. 18-19.

5.6 Amendment of Part 67, supra note 2.21:

Order Inviting Comments, 49 Fed. Reg. 18764, (May 2, 1984).

5.7 Amendment of Part 67, supra note 2.21:

Recommended Decision and Order, 50 Fed. Reg. 17765 (November 20, 1985).

5.8 Ibid., at paragraph 31 (footnote omitted).

5.9 Amendment of Part 67, supra note 2.21:

Decision and Order, FCC No. 86-5, Slip Opinion (January 7, 1986).

5.10 Third Reconsideration Order, supra note 2.44, at note 65.

5.11 Ibid., at paragraph 27.

5.11a For a description of tandem offices, see Behind the Telephone Debates, Volume 1, supra note 1.20 at sections IIQ and IIR.

5.12 Third Reconsideration Order, supra note 2.44, at paragraph 28.

5.13 Telecommunications Reports, Vol. 51, No. 2, January 14, 1985, at p. 1.

5.13a Ibid.

5.14 Ibid., at p. 2.

5.15 Letter of Richard C. Schramm, Vice President, Bell Atlantic, to Kevin R. Sullivan, Department of Justice, July 12, 1985.

5.16 Bell Atlantic Petition for Rulemaking, RM-5101, Public Notice Mimeo No. 5985 (July 12, 1985) [hereinafter cited as Bell Atlantic Petition].

5.17 In the Matter of Provision of Access for 800 Service, CC Docket No. 86-10 [hereinafter cited as Access for 800 Service]:

Comments of Satellite Business Systems, August 23, 1985.

5.18 Access for 800 Service, supra note 5.17:

Notice of Proposed Rulemaking, 102 FCC 2d 1387 (1986).

5.19 Ibid., at paragraph 28.

5.20 Telecommunications Reports, supra note 5.13.

5.21 MTS and WATS Market Structure Phase I, supra note 1.1.

5.22 MTS and WATS Market Structure Phase I, supra note 1.1:

Memorandum Opinion and Order, 102 FCC 2d 849 (1985) [hereinafter cited as Fourth Reconsideration Order].

5.23 Modification of Final Judgment, supra note 1.28, Part IV, Section F.

5.24 U.S. v. AT&T, 1983 Opinion on Reorganization, supra note 5.3, at p. 7, 569 F.Supp at pp. 1063-64.

5.25 GTE Sprint Communications Corporation, United States Transmission Systems, Inc., Allnet Communications, Inc., and US Telecom Inc., Joint Petition for Expedited Rulemaking, RM-5057, Public Notice, Mimeo No. 5287 (June 20, 1985) [hereinafter cited as Joint Petition].

5.26 In the Matter of GTE Sprint Communications Corporation, US Telecom, Inc., Allnet Communications Services, Inc., and United States Transmission Systems, Inc., CC Docket No. 85-348:

Notice of Proposed Rulemaking, FCC No. 85-604, Slip Opinion (December 5, 1985), at paragraph 9.

5.27 Access and Divestiture Related Tariffs, supra note 3.25:

"Prospects for Major Facilities-Based Other Common Carriers," a study by Booz, Allen & Hamilton, Inc., submitted as an attachment to Comments by GTE Sprint (March 18, 1985).

5.28 Joint Petition, supra note 5.26, at paragraph 14.

5.29 Bell Atlantic Petition, supra note 5.16.

5.30 Joint Petition, supra note 5.26, at paragraph 65.

5.31 Ibid., at paragraph 67.

5.32 TDX Systems, Inc., Petition for Rulemaking, RM-5196, Public Notice, Mimeo No. 0470 (October 23, 1985).

5.33 Telecommunications Reports, Vol. 51, No. 20, May 19, 1986, at p. 12.

5.34 Ibid., at pp. 2-3.

5.35 Telecommunications Reports, Vol. 52, No. 20, May 19, 1986, at p. 12.

5.36 U.S. v. AT&T, 1983 Opinion on Reorganization, supra note 5.24.

5.37 Telecommunications Reports, supra note 5.35.

6.1 MTS and WATS Market Structure Phase I, supra note 1.1; and Amendment of Part 67, supra note 2.21.

6.2 WATS-Related and Other Amendments of Part 69 of the Commission's Rules, supra note 4.54.

6.3 Telecommunications Reports, Vol. 52, No. 22, June 22, 1986, p. 5.

6.4 WATS-Related and Other Amendments of Part 69 of the Commission's Rules, supra note 4.54.

6.5 In the Matter of Petitions for Waiver of Various Sections of Part 69 of the Commission's Rules, supra note 4.70.

6.6 Telecommunications Reports, Vol. 52, No. 3, January 20, 1986, p. 36.

6.7 Telecommunications Reports, Vol. 52, No. 10, March 10, 1986, p. 10, and No. 11, March 17, 1986, p. 14.

6.8 S. 1660, supra note 3.24; and Telecommunications Reports, Vol. 49, No. 45, November 14, 1983, p. 4, supra note 3.28.

6.9 In the Matter of GTE Sprint Communications Corporation, US Telecom, Inc., Allnet Communications Services, Inc., and United States Transmissions Systems, Inc., supra note 5.26, at Statement of Chairman Mark Fowler.

6.10 Access for 800 Service, supra note 5.18, at paragraph 18.

Postscript

[1] Recommended Decision and Order, CC Dockets 78-72 and 80-286, by Joint Board. FCC Rcd 2324 1987, Adopted: March 12, 1987, Released: March 31, 1987.

[2] FCC, "FCC Adopts Joint Board Recommendations Concerning Subscriber Line Charges, Federal Lifeline Assistance, High Cost Assistance and

Pooling of Common Line Costs (CC Docket 78-72, 80-286)" (news release), April 16, 1987.

[3]Petitions for Waiver of Various Sections of Part 69..., Memorandum Opinion and Order, FCC Rcd 61 (1986), Adopted: November 25, 1986, Released: January 7, 1987.

[4]Telecommunications Reports, Vol. 53, No. 12, March 23, 1987, pp. 8-9.

[5]Memorandum Opinion and Order on Reconsideration, CC Docket 84-800, Adopted: August 7, 1986, Released: August 25, 1986.

ACRONYMS

ACP	Access Charge Plan
ADAPSO	Association of Data Processing Service Organizations
ANI	Automatic Number Identification
BFP	Base Factor Portion
BOC	Bell Operating Company
CALC	Customer Access Line Charge
CCL	Carrier Common Line
CCIS	Common Channel Interoffice Signaling
COE	Central Office Equipment
CPE	Customer Premises Equipment
CSR	Composite Station Rate
DEMs	Dial Equipment Minutes
DOJ	Department of Justice
ENFIA	Exchange Network Facilities for Interstate Access
EUC	User-End Charge
EUOA	End User Originating Access Plan
FCC	Federal Communications Commission
FGA	Feature Group A
FGB	Feature Group B
FGC	Feature Group C
FGD	Feature Group D
FX	Foreign Exchange
IXC	Interexchange Carrier
ISW	Inside Wiring
LEC	Local Exchange Carrier
MOU	Minutes of Use
MTS	Message Telephone Service
NARUC	National Association of Regulatory Utility Commissioners
NECA	National Exchange Carrier Association
NPA	Number Plan Area
NTIA	National Telecommunications and Information Administration
NTS	Non-Traffic Sensitive
OCC	Other Common Carrier
OSP	Outside Plant
PBX	Private Branch Exchange
PIN	Personal Identification Number
POP	Point of Presence
PSN	Public Switched Network
SCC	Specialized Common Carrier
SDN	Software Defined Network
SLC	Subscriber Line Charge
SLU	Subscriber Line Use
SPF	Subscriber Plant Factor
TWF	Toll-Weighting Factor
USF	Universal Service Fund
USOA	Uniform System of Accounts
WATS	Wide-Area Telecommunications Services