



APPENDIX 1



SPECIAL ACCESS OVERPRICING AND THE US ECONOMY

**How Unchecked RBOC Market Power is Costing
US Jobs and Impairing US Competitiveness**

prepared for the

AdHoc Telecommunications Users Committee

by

Lee L. Selwyn
Susan M. Gately
Helen E. Golding
Colin B. Weir

August 2007



ECONOMICS AND TECHNOLOGY, INC.

ONE WASHINGTON MALL, 15TH FLOOR • BOSTON, MASSACHUSETTS 02108 • (617)-227-0900

Preface

SPECIAL ACCESS OVERPRICING AND THE US ECONOMY

It is well understood and accepted that, for most products and services, competition is the best means for assuring the most efficient market outcome, and that government regulation of prices and earnings is a second-best solution that must be strictly limited to situations where some sort of market failure would arise in its absence. In certain industries, however, the presence of extremely high fixed costs, significant economies of scale and scope, and a “minimum efficient scale” that is so far in excess of 50% of the total market that the economic viability of more than a single producer is simply unrealistic in the extreme, a competitive market outcome cannot be expected to arise. Economic regulation of prices and earnings for the purpose of assuring a “competitive outcome” is the correct public policy solution for such markets. Without such affirmative measures, the *de facto* monopoly service provider will impose excessive *supracompetitive* prices and in so doing engender massive *inefficiencies* that can have far-reaching impacts economywide. This is certainly the situation that prevails with respect to Special Access Services furnished by the large incumbent local telephone monopolies.

In 1999, the FCC established a set of “triggers” that, when nominally “satisfied” in specific geographic market areas, would afford the incumbent local telco “pricing flexibility” with respect to special access, effectively deregulating these services. Satisfaction of these “triggers” was supposed to evidence the presence of effective competition for special access, but in the intervening eight years, RBOC special access prices have escalated, and earnings in this service category have soared to high double-digit – and even in triple-digit levels. By the end of 2006, the three remaining RBOCs were extracting more than \$5-billion in excess monopoly profits from these putatively “competitive” services.

Special access supports a broad range of economic activity across many industries and governments at all levels, and the persistent excessive pricing of these services ripples across the US economy has a severe adverse impact upon jobs, productivity, competitiveness, and economic output. In the research being reported here, we estimate that for the three-year period from 2007 through 2009 alone, the FCC’s continued failure to constrain RBOC special access prices to “competitive” levels will have cost the US economy some 234,000 jobs and roughly \$66-billion in economic output. Earnings levels of 80%, 100% or more compellingly and irrefutably demonstrate the vacancy of the FCC’s “triggers” approach in identifying the utter lack of competition for special access services and the devastating impact that the absence of price regulation has had on employment and economic output. This ongoing source of economic hard needs to be quickly eliminated.

This study was undertaken at the request of the Ad Hoc Telecommunications Users Committee. While the authors gratefully acknowledge the valuable assistance that the Committee has provided in the course of this research, the results of this work and the views expressed herein are solely those of the authors.

Boston, Massachusetts
August 2007

Executive Summary

SPECIAL ACCESS OVERPRICING AND THE US ECONOMY

It has been three years since the AdHoc Telecommunications Users Committee (“AdHoc”) released a white paper documenting that ILECs nationwide maintained a *de facto* monopoly over the vast majority of special access services and that, as a result, their prices for special access services were set grossly in excess of cost. The objective of that paper was to convince the FCC that its *laissez-faire* policy toward this critically important segment of the telecom marketplace was harming customers and actually making it less likely that competition would develop in the long run. Today, special access prices are even more outrageous than they were in 2004 and competition has been further weakened, yet the FCC has refused to take the actions necessary to restore special access rates to just and reasonable levels – consistent with its statutory mandate.

Special access is the name given to dedicated facilities that are used by businesses to connect to the national telecommunications network. Although many years ago special access was used only by interexchange carriers or very large corporate and government customers, the demand for the service has grown dramatically. Today, special access plays a crucial role in supporting nearly every type of telecommunications service on the market, and is purchased by small, medium, and large businesses, institutions and governments at all levels nationwide. In 2006, the regional Bell Operating Companies’ special access revenues topped \$15.6-billion dollars and represented over half of the RBOCs’ interstate revenues. Nearly one-third of those revenues – some \$5-billion – represented excess profits made possible by the absence of any significant competition for these services and by FCC policies that disregard the RBOCs’ monopoly status and permit them to price these services outside of a regulatory framework intended to ensure just, reasonable and nondiscriminatory rates.

Special access is to the information economy what highways and other transportation infrastructure are to manufacturing industries; they are the lifelines that connect US businesses and government to the rest of world. Without special access, there would be no Internet or any of the economic activity that rides on it. Banking, credit card, ATM, and most other financial transactions that drive the US economy depend critically upon the capabilities that this secure, dedicated access provides. Special access is also the “last mile” link between individual business, governmental, and institutional telecom users and worldwide voice and data communications networks.

Thus, while hardly a household word, special access is integral to the entire US economy. But special access service is being sold at prices that are so inflated that the entire economy loses productivity and efficiency every time they are used. In this paper, we explore the broader economic impact of continued application of supra-competitive special access prices in view of the fundamentally *noncompetitive* character of the special access

marketplace. We demonstrate that the negative impact on the economy goes far beyond the unjust enrichment of the RBOCs.

Rather, the sustained overpricing of special access results in an economic “deadweight loss” that undermines the efficiency and competitiveness of the US economy overall:

- The inflated price of special access (or other telecommunications services that involve the use of special access) as an input is passed on to consumers in higher prices for the final product they purchase. This, in turn, suppresses the demand for these products. Consumers lose in two ways: they are able to purchase less and they pay more than they should for what they buy. In economic terms, this is termed a *decrease in consumer surplus*.
- The inflated prices of special access also force producers that utilize these services to reduce their use and/or to substitute less efficient production methods. These impacts ripple *throughout the economy* – price levels increase, consumption is suppressed, jobs are eliminated, and exports are reduced. The loss of profits attributable to the curtailment of an efficient input, and the loss of efficiency resulting from the utilization of a less efficient mix of inputs (due to overpriced special access services) result in a *decrease in producer surplus*.

While each individual impact, viewed in isolation, may be small, in aggregate the economywide impact is many multiples of the excessive monopoly profit levels that the incumbent carriers are generating through their monopoly control of the special access market. In 2007 alone, we estimate that the \$5-billion that the RBOCs are able to unfairly extract from their customers ultimately deprives the US economy of 95,000 jobs and \$17.2-billion in GDP. Looking out two additional years (2007 through 2009, inclusive), we show that excessive special access rates would deprive the US economy of some 234,000 new jobs and GDP growth in the range of \$66-billion.

For the past five years, business and wholesale customers alike have repeatedly shown the FCC compelling evidence that there is minimal competition for special access, that the RBOCs’ prices are set far above any remotely competitive price level, and that the RBOCs’ excessive earnings from special access service are extremely harmful to customers and detrimental to the development and sustainability of competition for many other categories of telecommunications service. Many of these concerns have now been echoed by the Government Accountability Office (GAO) in a Report to Congress issued in November 2006: *FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services*. With the elimination of AT&T and MCI as independent companies, consolidation of special access facilities in the hands of the few remaining Regional Bells has become even greater than when AdHoc and AT&T began confronting the Commission with the evidence concerning the inadequacy of competition to discipline special access prices.

With each year, the losses to the economy from special access price gouging are compounded. Each year that this overpricing goes uncorrected, the US economy loses competitive advantages in the world economy. The time has come to insist that the FCC abandon its reliance on phantom competition and affirmatively act to restore special access prices to just and reasonable levels.

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THE ILEC SPECIAL ACCESS MONOPOLY

Introduction

Three years ago, the AdHoc Telecommunications Users Committee (“AdHoc”) released a white paper documenting that ILECs nationwide maintained a *de facto* monopoly over the vast majority of special access services and that, as a result, their prices for special access services were set grossly in excess of cost.¹ Our study demonstrated that what little actual competition existed for these services was insufficient to constrain ILEC² prices to “competitive” levels. In the intervening three years, the FCC has expanded its *laissez-faire* policy toward this critically important segment of the telecom marketplace. With no regulatory or market constraints, special access prices continue to be excessive and unreasonable. At the same time, what little competition there had been in this segment has continued to erode, due to the combined effects of the recent RBOC mergers – which absorbed the two largest potential sources of special access competition. AT&T Corp. and MCI, into the two largest RBOCs – and the withdrawal of several smaller service providers from the market altogether.

The impact of these events goes far beyond the telecommunications marketplace; persistent overpricing of special access services creates a drag on the US economy overall, adversely affecting productivity, efficiency, employment, and international competitiveness. In this paper, we explore the broader economic impact of the supracompetitive special access prices that have resulted from the fundamentally *noncompetitive* character of the special access marketplace.

1. *Competition in Access Markets: Reality or Illusion. A Proposal for Regulating Uncertain Markets*, Economics and Technology, Inc. (August 2004)

2. The acronyms “ILEC”, “RBOC” and “BOC” are used throughout this paper. “ILEC” stands for *Incumbent Local Exchange Carrier* and encompasses all franchised local exchange carriers including those companies that were formerly part of the integrated Bell System, and Independent Telephone Companies. “RBOC” stands for *Regional Bell Operating Company* and represents that subset of the ILEC category comprised of the parent companies of the former Bell System local exchange carriers and the long distance and other operations of those same parent companies. At the time of Divestiture there were seven (7) RBOCs, but following the mergers of the last several years only three (3) remain: AT&T (the former SBC, Ameritech, Pacific Bell and BellSouth Companies and the former AT&T Communications), Verizon (the former Bell Atlantic and NYNEX Companies, the former GTOC companies, and the former MCI) and Qwest. “BOC” stands for *Bell Operating Company* and includes the former Bell System local operating company operations of the RBOCs. BOCs are a subset of the both the RBOC and ILEC category.

What is “Special Access”?

“Access services” were introduced in 1984 in the aftermath of the break-up of the former Bell System as the means by which long distance carriers (including the divested AT&T Corp.) gained access to local carrier networks and subscriber lines. The FCC created two main varieties of access services – *switched access* and *special access*. Special access rates – the subject of this paper – are the charges set by local telephone companies for dedicated voice and data connections and include the connections between end users and their long distance carriers, but also many other dedicated voice and data paths.

Initially, the volume of special access services paled in comparison to the ILECs’ switched access business – in 1984, the regional Bells billed only \$1.1-billion in special access revenues as compared with \$13.3-billion in switched access charges.³ Because the FCC and other policy makers historically viewed special access services as little more than the link between business end users and their long distance carriers, the importance of this segment to the US economy overall has been largely overlooked, with the main policy focus being directed at the long distance (or “interexchange”) market itself. Today, the regional Bells sell more special access than switched access, and dedicated connections play a far more crucial role in supporting almost every variety of communications service now on the market – in contrast to the limited function that special access had supported when these services were first introduced nearly a quarter century ago.

Special access services are deserving of special scrutiny because today, despite the competitive inroads that have been made throughout many segments of the telecommunications industry, the ILECs continue to retain a virtual monopoly on the provision of dedicated special access services. As was discussed in AdHoc’s 2004 paper and in Appendix 3 to this paper, *when business users require dedicated voice and data connections from the places of work to the world more than nine times out of ten the only provider available to offer that connection is an ILEC*. It is the absence of wide-spread competitive alternatives to special access services that allows ILECs to overprice these services. Marketplace forces can be relied upon to ensure just and reasonable prices in competitive markets, but in a market where there is no competitive alternative available for virtually every purchase made – the only marketplace force in effect is the desire of the monopolist to maximize profits.

The combined effect of the consumers’ growing reliance on special access and persistent overpricing by the ILECs has, not surprisingly, raised concerns in virtually every telecommunications segment. But complaints about special access overpricing have frequently been dismissed by regulators as mere intercarrier squabbling. The FCC has persistently failed to consider the adverse impact that this overpricing has had on the US economy overall. Special access is to today’s information economy what highways and other transportation infrastructure are to manufacturing industries. As to the “last mile” link between user locations and voice/data networks, special access circuits are the building blocks that connect US businesses and government to the rest of world. Without special access there would be no wireless services without special access because special access services are used to connect more than 90% of all wireless transceiver (cell) sites to the wireless carriers’ switches. Indeed, without special access, there would be no Internet or any of the economic activity that rides on it, because special access. Banking, credit card, ATM, and most other financial transactions that drive the US economy would grind to a halt without the telecommunications capabilities that secure dedicated access provides. Yet after more than two decades of confident assurances that competition is emerging in this segment, the ILEC monopoly is as entrenched and pervasive as ever. The FCC has refused to acknowledge, much less address, this continuing problem. Because of

3. FCC *Statistics of Common Carrier 2004/2005 Edition*, Table 4.2. In 1984 special access services accounted for only 7% of the total interstate access pie. By the end of 2006, special access revenues had increased to \$15.6-billion and switched access revenues had declined to \$3-billion. Special access revenues now account for 51% of total reported interstate access revenues. FCC ARMIS Report 43-04, Table 1, Separations and Access Data, year end 2006.

the central role special access plays in the U.S. economy, the FCC, can not continue its abdication of regulatory responsibility for assuring that these services are made available by the ILEC monopolies with reasonable and nondiscriminatory rates, terms, service quality conditions and provisioning time frames.

Immediately following the 1984 Bell System break-up, special access rates, like those for most other ILEC offerings, were subject to “rate of return” or “cost-plus” type regulation. In 1990, the FCC introduced “price cap” regulation, under which prices could not exceed a price cap which was adjusted annually to reflect economy-wide inflation rates and historical productivity levels industry-wide. Price cap regulation, also known as “incentive regulation” permits the ILEC to capture any cost savings that it can attain through increased efficiency, while ensuring that the benefits of industry-wide productivity gains are reflected in lower prices, thus replicating the outcome, in a competitive market. With the low inflation rates that have prevailed since the late 1980s, and given an industry with high productivity (relative to the general economy), the price cap mechanism would typically have resulted in yearly rate *decreases* over the last decade and a half.

However, in 1999, in the mistaken belief that special access services would soon be subject to extensive competition in most metropolitan markets, the FCC established a process by which ILECs could qualify for “special access pricing flexibility,” taking these services out of price cap regulation and allowing ILECS to raise or lower prices at will and without regulatory oversight.⁴ As we discuss in Chapter 3 and Appendix 3 below, the conditions established by the FCC for an ILEC to qualify for pricing flexibility had little relationship to the likely emergence or continued presence of actual, price-constraining competition, and were easily satisfied in most major markets nationwide. Today, most special access rates are no longer subject to price cap or any other form of price regulation.

Of course, if the FCC had been right about the emergence of competition for special access, the pricing flexibility rules would not be a problem, since effective competition obviates the need for continued economic regulation of prices and earnings. If a market is or becomes competitive, persistent excessive earnings can be expected to stimulate entry by new providers, increasing supply and competition overall, and forcing prices down to competitive – i.e., to cost-based – levels, producing earnings levels at or close to the FCC’s last “authorized” 11.25% rate of return. This has not happened. In our 2004 white paper, we demonstrated that special access rates have either increased or have not decreased in “pricing flexibility” markets, as would have happened under price cap rules. In fact, we showed that special access rates in the supposedly “competitive” geographic markets are now actually *higher* than those in effect in areas where the FCC acknowledges the ILECs’ monopoly and applies incentive regulation. In this report, we update the data from our earlier report. The updated data shows that the erosion of competition that has occurred in the intervening three years has made it possible for the ILECs to maintain and to further increase special access rates in the “pricing flexibility” markets, to the point where their earnings levels in this segment have grown to, in some cases, the triple-digit range.

4. *In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers; Petition of U S West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, CC Docket No. 96-262; CC Docket No. 94-1; CCB/CPD File No. 98-63; CC Docket No. 98-157, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, 14 FCC Rcd 14221(1999). The new pricing flexibility rules were effective 30 days following their publication in the Federal Register on September 22, 1999, Federal Register, Volume 64, Number 183, Rules and Regulations, pp. 51258-51269. [*Pricing Flexibility Order*]

RBOC profits on special access services have risen to dizzying heights.

As detailed in Appendix 1, the average return on special access services has been climbing steadily since 1996.⁵ The fact that RBOC special access prices are not even remotely being constrained by competition is reflected in the actual rates of return that these companies have been able to earn since the FCC lifted the price caps for these services., such that in the most recent reporting period there were RBOCs whose earnings were more than *ten times* the 11.25% earnings level last authorized by the FCC. Three years ago, we reported that the average special access rate of return for 2003 taken across the (then) four RBOCs was 43.7%. For 2006, that composite figure had skyrocketed to 77.9%! As we explain in more detail in Chapter 2, in 2006 alone special access prices were set at levels that generated in aggregate more than \$8-billion in excess special access earnings.⁶ Over just the past five years, these RBOC overearnings have accumulated to some \$30-billion.

For obvious reasons, the RBOCs have attempted to discredit these earnings calculations, claiming that they are overstated because they have been derived from regulatory accounting data. We address each of the RBOC claims in Appendix 1, and show them to be without merit. Sustained earnings at these extreme levels are unheard of in competitive markets. With rates of return near or in excess of 100%, if entry were possible the onslaught would make the California gold rush look like a short queue at a supermarket checkout counter. But economic conditions do not permit the significant entry required to create such competition, which explains why there can be no “gold rush” to cash in on these extraordinary profit levels. And without entry, the RBOCs’ earnings on special access services have not only been sustained, they have continued to climb – and each year that the RBOCs overearn is another year that American businesses with no available competitive alternatives are forced to overpay for special access and thus divert funds that could be used for other productive purposes.

The impact of special access overpricing extends well beyond the telecom industry.

The persistently excessive rates that the RBOCs are able to extract from captive users of their special access services have reached a level of magnitude and importance that can no longer be ignored because of its adverse impact upon the entire US economy. As we show in Chapter 2, because of the importance of these services across a broad spectrum of US businesses, institutions, and government at all levels, the RBOCs’ excessive rates increase the costs of doing business overall, result in inefficient choices in the use of telecommunications and other production inputs, and have become a major drag on the entire US economy, hijacking what could be broad economic benefits throughout all business sectors and isolating those benefits to the three Bell monopolies.

5. The last time that FCC established an “authorized rate of return” for the RBOCs was in 1990, and the Commission set the rate at 11.25%. That rate was intended to be a proxy for what the RBOC could earn in a market where its rates were constrained by competition, based on then-current market conditions (including capital costs).

6. See Table 1 *supra*. For these purposes excess special access revenues are defined as revenues in excess of what would have been necessary to generate an 11.25% rate of return for the special access category.

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THE EXCESSIVE RBOC SPECIAL ACCESS PRICES HARM THE US ECONOMY

Special access is an essential input to a broad range of economic activities, both within and beyond the telecommunications industry itself.

Demand for special access is extensive, widespread, and growing. In 2006, the RBOCs together provided some \$15.6-billion of special access services, up by more than 25% over the previous five years. In fact, special access now represents about 51% of all RBOC interstate revenues. These services now support a broad range of economic activities, both within and beyond the telecommunications industry. They are used by medium and large businesses, institutions and governments at all levels as the principal “last mile” connection for local and long distance, voice and data communications. They are used by wireless carriers to connect individual cell sites and switching offices. They are used by Internet Service Providers both for “last mile” connections to customers and for the interconnection and internetworking capabilities that constitute the Internet. ILEC-provided special access is a component of many competitive telecommunications services (e.g., wireless and VoIP) that the ILECs claim are attracting business away from their own switched local services. In order to compete with the ILECs, however, these rival providers are dependent upon ILEC special access. Yet despite its scale, scope and growth, the special access segment has attracted little entry except in limited areas of extremely high and concentrated demand.

Small and Medium Business Users: Although frequently thought of as a service for only the largest of users, high capacity special access facilities, particularly at the DS1 level, are now used by businesses of all sizes. Small law firms, grocery stores, insurance agents, physicians’ offices, and even local public schools are all increasingly connected to the world via special access facilities. A DS-1 can provide up to 24 voice-grade equivalent circuits, but it is frequently economical for businesses needing as few as 5 or 6 lines to purchase a DS-1 rather than individual access lines. Small businesses can also use a single DS-1 to obtain both voice service and internet access (referred to as integrated access). As a result, DS-1 special access services are transmission medium of choice for more and more businesses of all sizes every day.

Satellite and Branch Operations of Large Enterprise and Government Users: Few large US companies confine their entire operations to a single headquarters location in 21st century America, and their branch and satellite operations utilize broadband special access to connect both to headquarters and to the world. When the teller at a local branch records a transaction, it is most likely transmitted over a special access facility. When a department store checks its inventory or consumers withdraw funds from their bank ATM a dedicated special access facility is usually involved. Virtually every interaction US consumers have with major corporate entities involves the transmission of data over special access facilities -- ATM machines, automobile dealerships, retail operations, the airline gate agent at the airport, credit card swipe machines -- all are frequently connected via the dedicated special access connections. Individual corporate users can have 10,000, 20,000 even 30,000 locations connected via ILEC DS-1 special access services across the US.

Wireless. One of the largest sources of demand for special access services is wireless carriers. While precise data is not generally available, in aggregate, US wireless carriers likely spend from \$1- to as much as \$2.5-billion annually on special access services.⁷ These services are used primarily to interconnect wireless transceiver cell sites to the wireless carrier's mobile telephone switching office ("MTSO"). There are approximately 185,000 individual cell sites throughout the US, and every one of them requires such connectivity.

In filings before the FCC, Nextel stated that some 97% of its cell sites are connected to the MTSOs by means of special access services leased from an ILEC.⁸ Other wireless carriers' special access purchases likely have similar characteristics.⁹ This is hardly surprising since wireless cell sites are not generally located along the limited number of competitor fiber routes, and rarely if ever present a level of demand sufficient to justify construction of facilities to the site by the wireless carrier. An individual wireless cell site typically serves a relatively small geographic area – sometimes well below one square mile – and as such a typical cell site will be served by one, two or three DS-1s, rarely more than that, and would almost never require even as much capacity as a single DS-3.

Thus, even by the FCC's own criteria for assessing the potential for a competing carrier to deploy facilities at a given location – i.e., three or more DS-3s – there is virtually no situation anywhere in the U.S. in which an individual wireless cell site would satisfy the threshold condition for facility-based entry by an ILEC competitor or the wireless carrier itself.

The intense dependency of wireless carriers upon ILEC special access services is particularly noteworthy in light of oft-repeated ILEC claims that wireless services are a direct facilities-based competitor to traditional wireline telephone service. While radio, rather than wire, is used to establish the initial link between a consumer's wireless handset and the wireless carrier's cell site, that distance typically amounts to only a few thousand feet at most. The bulk of the distance between cell site and the ultimate destination of the call, including the rest of the "final mile" between cell site and MTSO, is covered using ILEC-provided special access services.

Large Enterprise and Government Users: The high-capacity transmission services offered by ILECs as special access services are the building blocks for enterprise customers' dedicated or "private line" voice and data networks. Large commercial enterprises, public and private institutions, and government agencies rely heavily upon their private corporate networks, specialized data systems, and high-capacity, mission-critical transmission facilities interconnecting locations with heavy traffic volumes. In today's "information economy" the "information" travels primarily over special access facilities. As a result, the ILECs' special access rates drive both the wholesale and retail prices that enterprise customers must pay to deploy nation-wide data and voice networks. The one constant in the world of corporate and government telecom is the need for dedicated broadband special access connections. In the 1970s and 1980s, corporate data was transmitted over dedicated "private line" networks. Special Access facilities were the "last mile" facilities used to connect corporate locations to longer haul portions of their private lines. In the 1990s, Frame Relay and Asynchronous Transfer Mode ("ATM") services replaced the dedicated private line networks that corporate and governmental users had relied upon, but the same special access connections continued to be necessary to connect the corporate locations to a carrier's Frame Relay and ATM networks. Today, MPLS and other IP-based services are the transmission technologies of choice, but large users

7. There are approximately 200,000 cell sites in the US, the vast majority of which are connected via DS-1 special access service, with a small percentage requiring multiple DS-1s.

8. Nextel Reply Comments, WC Docket No. 05-25, at 6 (July 29, 2005)

9. Other wireless carriers will likely provide similar data in the response to the FCC's *Refresh the Record* PN in 05-25.

still need the very same kinds of special access facilities to get to the MPLS switches and IP routers used to deliver their traffic to the rest of the world.

Excessive prices for special access services create a drag on the US economy, costing billions of dollars in economic welfare and hundreds of thousands of jobs.

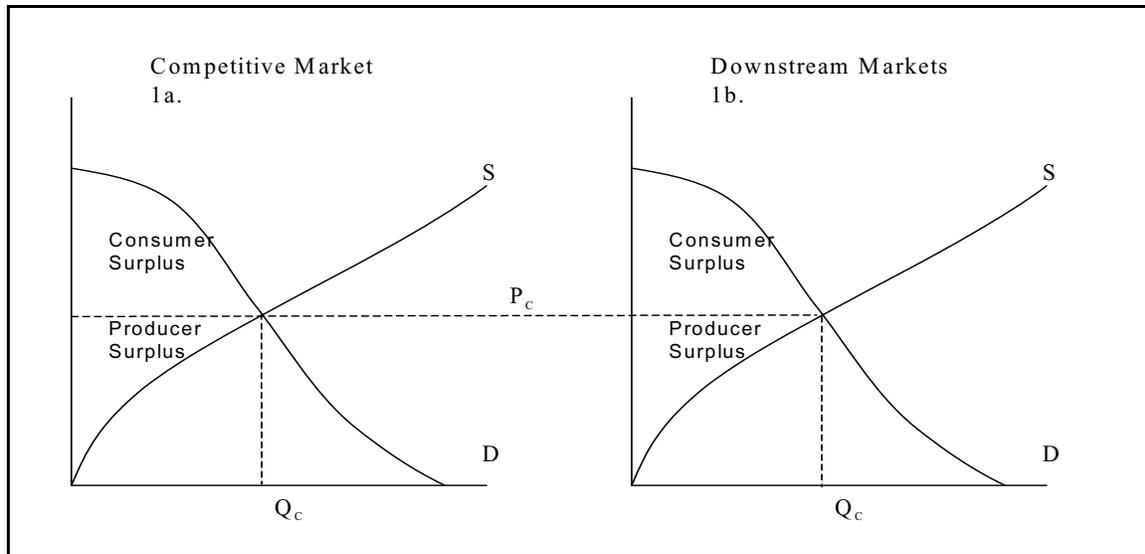
The “perfect storm” of vastly increased commercial dependence upon special access, minimal competition, and deregulation of special access markets has enabled the incumbent carriers – principally the regional Bells – to maintain a regime of excessive “supracompetitive” prices and excessive profits for these services. In 2006, Bell company special access revenues exceeded \$15.6-billion, generating some \$5-billion in excess monopoly profits – those over and above the “authorized” 11.25% return on investment that the FCC expects would arise under the “competitive” market conditions.¹⁰ Because of the role of special access as essential inputs to a broad spectrum of economic activity nationwide, the sustained overpricing of these services results in an economic “deadweight loss” with far-reaching negative impacts upon the efficiency and competitiveness of the US economy overall.¹¹

A “deadweight loss” arises from an inefficiency in the market or, more specifically, from any deficiency that results from an inefficient allocation of society’s resources. Normally, economic resources are allocated most efficiently when markets are competitive, because in such markets prices tend to be bid down (by the competing producers) toward long run marginal cost (see Figure 1a). If the output is itself an “intermediate good” that is subsequently used as an input to some other economic sectors, the competitive price of the good reflects its costs of production, thereby producing maximum efficiency in the downstream sector (see Figure 1b). However, in markets with only one or a small number of firms – such as the market for special access services – and absent specific regulatory intervention, prices are dictated (by the one or small number of producers) so as to maximize profit, typically at levels well in excess of cost (see Figure 2a). Some of the purchases that would have been made at the competitive price will not be made, or will be made but in smaller quantities, at the higher “supracompetitive” price. In aggregate, the demand for the product or service is suppressed relative to the quantity that would have been demanded at the (lower) price that would prevail under competitive market conditions. The result of such suppression of demand represents the “deadweight loss” – the costs to the overall economy that are created by the resource allocation inefficiency caused by the excessive price.

When, as is the case with special access services, the product or service subject to the excessive price is an intermediate good that is itself utilized as an input to further downstream production, the macroeconomic impacts of the deadweight loss are compounded – *even where the downstream market is itself competitive*. This is because the excessive price of the intermediate good is flowed through into the prices of any downstream products or services in which it is a component, thereby suppressing both supply and demand, and creating additional deadweight losses in those sectors as well (see Figure 2b). Thus, the adverse economic consequences of excessive pricing in a monopolized sector such as special access are multiplicative and far-reaching, and have profound effects across many

10. The 11.25 “authorized” rate of return was last established by the FCC for the ILECs in 1990. *In the Matter of Rescribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 89-624, Order, 5 FCC Rcd 7507 (1990).

11. A “deadweight loss” can be defined as the costs to society that are created by an inefficiency in the market or, more specifically to any deficiency that results from an inefficient allocation of society’s resources.

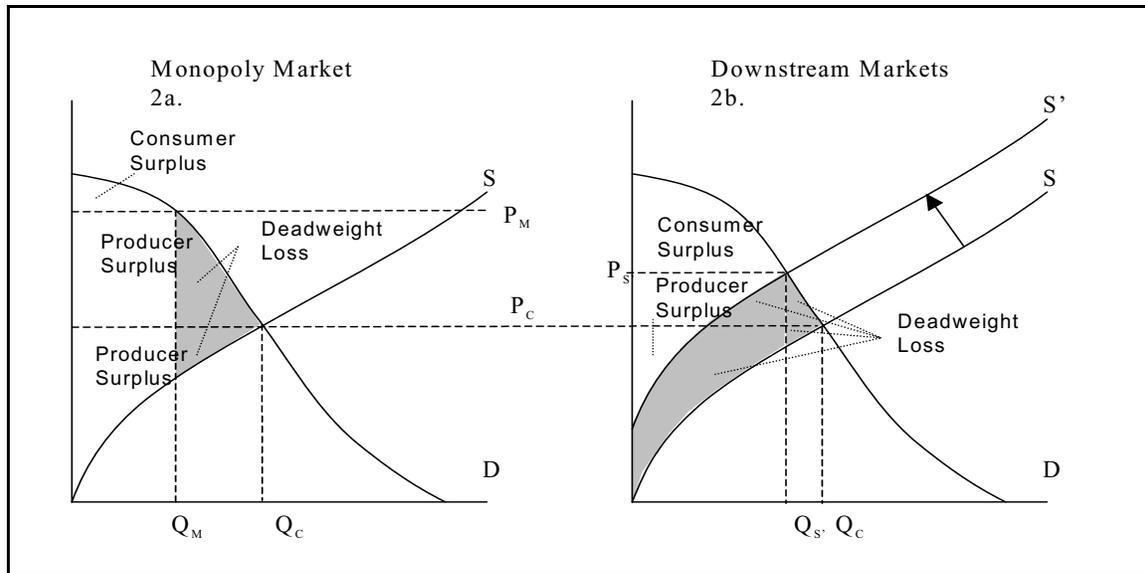


Figures 1a-1b. In competitive markets, market equilibrium occurs at P_cQ_c , the intersection of the supply and demand curves. Price is set at cost (including a competitive return on capital required to support the venture), and output quantity is maximized. If the output product is subsequently used as an input to other production activities in downstream markets, the price of the input is equal to its marginal cost, assuring maximum efficiency and optimal resource allocation.

economic sectors: Producers that rely upon special access – or upon other telecom services that are themselves dependent upon the use of special access – as an input to their own economic activity may curtail their use of the service and will, in any event, generally be forced to pass on the excessive prices they pay for these services in the prices of their own final product. This has the effect of suppressing demand for those downstream products and diminishing consumer surplus – i.e., the net economic benefit that consumers derive from their purchases of those final products – as a result of both the inflated price levels of those final products and the suppressed consumption of them. The inflated prices of special access also force producers that utilize these services to decrease their use (and their own output quantities), and/or to substitute less efficient production methods.

These impacts ripple throughout the economy – economywide price levels increase, economywide consumption is suppressed, jobs are eliminated, exports are reduced, imports are increased. While each individual impact, viewed in isolation, may be small, in aggregate the economywide impact is many multiples of the excessive monopoly profit levels that the incumbent carriers are generating through their monopoly control of the special access market. Perhaps even more importantly, the excessive special access rate levels have serious *negative* consequences for innovation and technological development in adjacent product markets, such as new broadband services, wireless applications, and the Internet generally.

This forgone or less efficient production represents both lost economic growth that would otherwise occur, and lost jobs that would otherwise be needed to support that production. The ILECs also create economic drag because they provide fewer special access services than would otherwise be economically efficient, for example, where



Figures 2a-2b. In noncompetitive (i.e., monopoly, oligopoly) markets, the profit-maximizing price P_M is set in excess of marginal cost and above the price P_C that would prevail in a competitive market. At the higher price, demand for the firm's product is suppressed, resulting in a lesser output quantity Q_M relative to competitive market output Q_C . When the product is used as an input to production in a downstream market, its price is above its marginal cost, causing the supply curve in the downstream market to shift to the left, forcing up the price and reducing the quantity of its output. The presence of monopoly in an upstream market thus ripples through other economic sectors that rely upon its (excessively priced) output, resulting in deadweight losses in both the upstream and downstream markets.

sufficient additional capacity is already in place, resulting in additional economic losses, and job losses both in the ILECs themselves as well as in their suppliers. ILECs purchase a smaller quantity of inputs than they would have used to produce at the competitive output level, and other firms that utilize special access as an input to their own production will similarly have to scale back their activities in response to the inflated special access prices. The result: less output, fewer jobs, and higher prices, throughout the economy.

As noted above, special access services are widely used as inputs by many types and sizes of businesses in the US, as well as by governments and institutions to facilitate the efficient conduct of their business. The prices of special access services directly affect the costs that these businesses face, and even small overpricing inefficiencies will result in marked negative effects on the US economy as a whole. In addition to direct effects within the telecom sector itself, upstream sectors that furnish equipment, supplies and services to the telecom carriers as well as downstream industries that rely upon (overpriced) special access as inputs to their own production will sustain cutbacks in output, investment and employment. Inefficiencies introduced into downstream sectors as a result of overpriced special access will make domestic firms less competitive internationally, a result that will negatively affect investment and employment in these sectors as business is shifted overseas. Moreover, as the importance of telecommunications to the US economy grows, the overall magnitude of the potential deadweight loss arising through overpricing of critical telecom services also increases. RBOC prices for special access service, on average, are 53% above what would prevail in a competitive marketplace or under effective economic regulation. This 53% price inflation in the \$16.4-billion market for special access services translates into an astonishingly large deadweight economic and job loss for the US economy.

The persistent excessive prices being charged by the RBOCs for special access services have cost the US economy billions of dollars annually, have resulted in a loss of hundreds of thousands of jobs, and represent an even larger drag on the economy going forward.

The analysis in the previous section demonstrates that reductions in RBOC special access prices to competitive levels would produce substantial benefits for the US economy overall. The extent of the resulting economic stimulus can be estimated using macroeconomic models to calculate both the increase in demand for special access services that will result from the lower competitive-level prices, as well as the impacts upon the overall US economy that these lower prices and higher consumption would engender.

Prior to their absorption into SBC and Verizon, pre-merger AT&T Corp. and MCI Telecommunications Corp. were among the largest purchasers of RBOC special access services. Both firms also competed, albeit to an extremely limited degree,¹² in the special access market both as providers of facilities-based services and as resellers of RBOC-provided special access.¹³ Because their facilities-based services were so insignificant compared to their resold ILEC services, however, AT&T's and MCI's interests were primarily focused upon their respective purchases of special access services from the RBOCs rather than as competitors in this market. For example, in a 2002 declaration submitted to the FCC, AT&T noted that of the roughly 186,000 commercial buildings where AT&T was providing service at the DS-1 level or higher, only about 6,000 of these were being served via AT&T-owned special access type facilities, and that in order to furnish service to roughly 176,000 of those locations, its only source of special access connectivity was the RBOCs.¹⁴

In October 2002, pre-merger AT&T Corp. joined Ad Hoc's efforts to address the pervasive overpricing of special access services. AT&T petitioned the FCC to "reform and tighten its special access rate regulations to the full extent necessary to protect consumers and competition and to curb the Bells' existing ability to impose unjust,

12. WC Docket No. 05-65, *In the Matter of SBC Communications Inc. and AT&T Corp., Applications for Approval of Transfer of Control Memorandum Opinion and Order*, 20 FCC Rcd 18290 (2005) (*SBC/AT&T Merger Order*) at footnote 98 states: "In the 19 in-region MSAs where AT&T has local facilities, SBC identifies over 240,000 commercial buildings with more than 10 DS0 line equivalents, and states that AT&T provides Type I service to only 1,691 buildings in SBC's region as a whole using its own facilities--only 0.7%. See SBC/AT&T Application at 105 n.347; SBC/AT&T Reply at 30-32; Letter from Christopher M. Heimann, SBC, and Lawrence J. Lafaro, AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-65 at 2-3 (filed Sept. 6, 2005) (SBC/AT&T Sept. 6 *Ex Parte* Letter)." [emphasis supplied]. The equivalent figures in the *Verizon/MCI Merger Order (In the Matter of Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control, WC Docket No. 05-75, 20 Memorandum Opinion and Order, FCC Rcd 18433 (2005) at footnote 97)* have been redacted. However, given that AT&T was the larger of the two acquired CLECs, the number of MCI-served buildings within the Verizon footprint is, if anything, likely to be a smaller percentage of all Verizon-served buildings with more than 10 DS0 line equivalents..

13. A condition in the FCC's *Verizon/MCI Merger Order*, providing that Verizon will not raise rates of the DS1 and DS3 wholesale metro private line services for existing MCI customers (as of the merger closing date) for a period of thirty months, reflects concerns about the competitive effects of losing MCI as a retail competitor (reselling Verizon special access where it lacked its own facilities). *Verizon/MCI Merger Order*, Appendix G ("Conditions"), Special Access, condition #2. A similar condition is contained in Appendix F ("Conditions") of the *SBC/AT&T Merger Order* as to AT&T and TCG DS1 and DS3 local private line services.

14. *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM Docket No. 10593, *Declaration of Kenneth Thomas on behalf of AT&T*, filed October 15, 2002 as part of the *AT&T Special Access Petition*, at 1. Of the 186,000 buildings served by AT&T Corp. using special access, 6,000 were served using AT&T facilities, and approximately 3,700 were served via other CLEC facilities.

unreasonable and discriminatory charges for their special access services.”¹⁵ Consistent with the positions advocated by Ad Hoc in earlier pleadings,¹⁶ AT&T asked that, at a minimum, the FCC

- “revoke pricing flexibility and reinitialize price caps to levels designed to produce normal, rather than monopoly, returns;”
- “reduce all special access rates subject to Phase II pricing flexibility to levels that would produce an 11.25% rate of return;” and
- “impose a moratorium on consideration of further pricing flexibility applications.”¹⁷

Several other competitive carriers joined in those efforts, which were also supported by the AdHoc Telecommunications Users Committee. AT&T Corp. MCI, AT&T Wireless, Cable & Wireless, CompTel, ETUG,

15. *Id.*, at 5.

16. See, e.g., Comments of AdHoc Telecommunications Users Committee (Jan. 22, 2002) at 2-3, filed in *Performance Measurements and Standards for Interstate Special Access Services*, CC Docket Nos. 01-321, 00-51, 98-147, 96-98, 98-141, 96-149, 00-229, Notice of Proposed Rulemaking, 16 FCC Rcd 20896 (2001) (“*Performance Standards rulemaking*”); Comments of AdHoc Telecommunications Users Committee (Mar. 1, 2002) at 14-17, filed in *Review of Regulatory Requirements for Incumbent LEC Broadband Services; SBC Petition for Expedited Ruling That It Is Non-Dominant in its Provision of Advanced Services and for Forbearance From Dominant Carrier Regulation of These Services*, CC Docket No. 01-337, Notice of Proposed Rulemaking, 16 FCC Rcd 22745 (2001) (“*Broadband Regulation Rulemaking*”); Reply Comments of AdHoc Telecommunications Users Committee (Jul. 1, 2002) at I, filed in *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, CC Docket Nos. 02-33, 95-20, and 98-10, Notice of Proposed Rulemaking, 17 FCC Rcd 3019 (2002) (“*Wireline Broadband Internet Access Rulemaking*”); Comments of AdHoc Telecommunications Users Committee (Dec. 2, 2002) at 5, filed in *AT&T Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM No. 10593 (“*AT&T Special Access Rulemaking Petition*”); Comments of AdHoc Telecommunications Users Committee (Jun. 30, 2003) at 6, filed in *Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements*, WC Docket No. 02-112, and *2000 Biennial Regulatory Review Separate Affiliate Requirements of Section 64.1903 of the Commission’s Rules*, CC Docket No. 00-175, Further Notice of Proposed Rulemaking, 18 FCC Rcd 10914 (2003) (“*ILEC Separate Affiliate Dominant/Non-Dominant Rulemaking*”); Reply Comments of AdHoc Telecommunications Users Committee (September 23, 2004) at 3-14, filed in *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, WC Docket No. 04-223, Memorandum Opinion and Order, FCC 05-170 (rel. Dec. 2, 2005) (“*Qwest Omaha Forbearance Petition*”); Reply Comments of Ad Hoc Telecommunications Users Committee (May 10, 2005), filed in *SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, Memorandum Order and Opinion, 20 FCC Rcd 18290 (2005) (“*SBC/AT&T Merger Order*”); Reply Comments of AdHoc Telecommunications Users Committee (May 24, 2005) at 8-23, filed in *Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, WC Docket No. 05-75, Memorandum Order and Opinion, 20 FCC Rcd 18433 (2005) (“*Verizon/MCI Merger Order*”); Comments and Reply Comments of AdHoc Telecommunications Users Committee (June 13, 2005 and July 29, 2005), filed in *Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 1994 (2005) (“*Special Access Rulemaking*”); Comments of AdHoc Telecommunications Users Committee (February 22, 2006) filed in *Petition of Qwest Communications International Inc. for Forbearance from Enforcement of the Commission’s Dominant Carrier Rules as They Apply After Section 272 Sunset Pursuant To 47 U.S.C. § 160*, WC Docket No. 05-333 (“*Qwest § 272 Forbearance Petition*”), Letter from Colleen Boothby, Counsel for Ad Hoc Telecommunications Users Committee, to Marlene Dortch, Secretary, FCC, WC Docket No. 04-440 (filed Mar. 16, 2006).

17. *AT&T Special Access Petition* at 5-6

and Nextel formed the Special Access Reform Coalition (“AT&T *et al*”) conducted an analysis of the potential macroeconomic effects of special access overpricing,¹⁸ and concluded that

- (1) The economic impact of reducing special access prices to competitive levels would, over three years, result in \$14.5-billion in economic growth and the creation of 132,000 jobs.
- (2) These results translate into an economic growth factor of 2.59 (i.e., for each \$1 of special access revenue reductions to a competitive level, the economy will grow by \$2.59) and a job creation factor of 0.0000235 (i.e., for each \$1-million in special access revenue reductions, 23.5 jobs will be created).
- (3) These economic impacts were the direct and indirect effects of the extent of special access overpricing then in effect – as of year end 2002, ILEC special access rates of return were approximately 40%, on total revenues of about \$13.3-billion.¹⁹
- (4) A reduction of special access prices of 42%, or \$5.6-billion in revenue, would bring special access rates of return in line with the Commission’s last-authorized 11.25% level.
- (5) Such a reduction in special access prices would be relatively revenue neutral for ILECs, as special access services have a price elasticity greater than -1.0, such that reductions in price would at least be matched, if not exceeded, by the additional revenues arising from increased demand at the then-reduced price level.

The AT&T Study relies upon publicly available regulatory accounting reports and data as submitted by the RBOCs to the FCC’s Automated Reporting and Management Information System (“ARMIS”). ARMIS cost and other accounting data reflect “embedded” conditions as these are recorded on the companies’ regulatory accounting books that are prepared and maintained in accordance with the FCC’s “Uniform System of Accounts” rules, codified at 47 CFR §32, §36, and §69. In addition to companywide accounting data, ARMIS also maintains separate results for each of several categories of service, one of which is Interstate Special Access. These category-specific data can be used to identify the relative profit being generated by each individual service category, expressed in terms of the realized rate of return.

Starting in 2000, the first full year after the FCC’s Special Access Pricing Flexibility Order became effective,²⁰ Special Access Category returns have been well into the high double-digit range *and growing*, an outcome that is not consistent with profit levels that could be sustained in effectively competitive markets. Rather, these extraordinarily high earnings levels are consistent with a market that is decidedly *non-competitive* and demonstrates the extent to which monopoly forces have succeeded in maintaining special access prices at supracompetitive levels (i.e., above the FCC’s authorized 11.25% rate of return) once the FCC ceased regulating prices for the majority of special access services. Additionally, the AT&T Study adopted a conservative average price elasticity for special

18. Paul N. Rappoport *et al*, *Macroeconomic Benefits from a Reduction in Special Access Prices*, June 12, 2003 (“AT&T Study”). *Ex parte* Submission of the Special Access Reform Coalition (SPARC) in *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates For Interstate Special Access Services*, RM Docket No. 10593 (“AT&T Study”).

19. Since both the aggregate size of the special access market and the extent to which special access rates deviate from cost are far greater today than they were when the AT&T study was conducted, current economic impacts are far greater.

20. *Pricing Flexibility Order*, *supra* fn 2.

access services of -1.0,²¹ meaning that if special access prices were to be reduced to competitive levels, demand for special access services would increase at a rate of 1% for each 1% reduction in price. These basic assumptions were then used as inputs to a proprietary macroeconomic model created by Global Insight.²²

Using the AT&T Study as the basis for a current analysis, ETI projects that continued overpricing of special access services will cost the US economy some \$17-billion and 95,000 jobs in 2007 alone, and that these impacts will sustain further escalation over the next several years.

Since the AT&T Study was originally undertaken, RBOC special access rates of return have continued to mushroom, and as of year-end 2006 were on average about 77.9%. A 53.3% price reduction would be required to bring these returns back down to a competitive level – i.e., in line with the FCC’s last authorized rate of return (11.25%) – representing an \$8.3-billion reduction in RBOC special access rates. Table 1 presents the calculation used to arrive at this estimate.

The demand for special access services is growing annually. Revenues for this category have increased 17% over the last three years, with annual growth rates ranging from 3%-7% during that time frame. Output, as measured in terms of aggregate special access circuit capacity sold by the RBOCs, more than doubled between 2003 and 2006, with annual growth of between 12%-54%. RBOC special access net earnings also rose, with the annual increase averaging 10.4% over the last three years, indicating that revenues have been growing faster than costs. And this certainly appears to be the case. While demand for special access services was increasing, the cost of supplying special access services has been declining. Aggregate RBOC special access net investment fell by some 26% over the same three-year period (i.e., averaging 9.6% annually),²³ and total operating expenses associated with these services decreased by 4%.²⁴ Yet despite this steady growth in revenues and profits, prices remained

21. In the AT&T Study, the authors actually calculate price elasticities of demand for special access service of -1.31 and -1.91 for the DS-1 and DS-3 and higher levels respectively. The authors settle on the use of -1.0 because they conclude that it is a reasonable and conservative estimate, especially in the light of evidence that would support the use of a higher elasticity. *AT&T Study*, at 11. The RBOC response to the AT&T Study criticizes the use of -1.0 arguing, among other things, that it must be wrong because it is “convenient” and also because the methodology used to estimate the elasticity could have introduced bias into the calculation or included spurious results. Significantly, while the RBOC response devotes fully six pages to a discussion of *potential* flaws in the demand elasticity calculation, it does not offer any alternative or putatively more appropriate estimate for the elasticity of demand. In the absence of any actual data to the contrary, the AT&T assumption, as an estimate, remains reasonable.

22. Global Insight is a privately held company formed from two respected economic and financial information companies, DRI (Data Resources, Inc.) and WEFA (Wharton Econometric Forecasting Associates). The firm provides comprehensive economic, financial, and political coverage of countries, regions, and industries available from any source – covering over 200 countries and spanning more than approximately 170 industries.

23. Despite the decrease in average net investment, RBOCs have been increasing network capacity (supply) both through new fiber deployments and through the acquisition of their principal special access competitors – AT&T Corp. and MCI.

24. Given the dramatic increases in RBOC special access rates of return due both to increasing revenues and decreasing costs and net investments required to provide service, it can be assumed that (a) the supply curve is downward-sloping, as would be expected in a high fixed cost, decreasing average cost industry such as telecommunications, (b) the outward shift of the (upward- or downward-sloping) supply curve is greater than the outward shift of the demand curve, or (c) both. If this were not the case, increases in demand at the fixed monopoly price would shift the quantity produced to a higher point on the supply
(continued...)

Table 1				
2006 Total RBOC Overcharges Interstate Special Access Services				
		Calculation	Total Interstate	Special Access
1	Average Net Investment		\$ 24,866,106,000	\$ 7,579,266,000
2	Net Return		\$ 6,497,617,000	\$ 5,901,059,000
3	ROR	Line 2 / Line 1	26.1304%	77.8579%
4	Approved ROR	0.1125	11.2500%	11.2500%
5	Tax Rate	0.3925	39.2500%	39.2500%
6	Overearnings	(Line 3 - Line 4) * Line 1	\$ 3,700,180,075	\$ 5,048,391,575
7	Overcharging	Line 6 / (1-Line 5)	\$ 6,090,831,399	\$ 8,310,109,588
8	Daily Overcharges	Line 7 / 365	\$ 16,687,209	\$ 22,767,424
9	Gross Revenues		\$ 30,248,966,000	\$ 15,576,660,000
10	Price Reduction required to yield 11.25% ROR	Line 7 / Line 9	20.14%	53.35%

Sources: Federal Communications Commission, ARMIS Report 43-04, Access Report: Table I YE 2006. Available at <http://www.fcc.gov/wcb/eafs/> (accessed April 3, 2007). 39.25% is the composite tax rate currently used in the FCC's HCPM/HAI Synthesis Cost Proxy Model. <http://www.fcc.gov/wcb/tapd/hcpm/welcome.html>

largely unchanged between 2003 and 2006. In Table 2 below, we extrapolate RBOC special access net return and average net investment for the years 2008 and 2009, and the resulting additional supracompetitive overcharges that would prevail if no change in pricing takes place.

Table 2				
Forecast of RBOC Special Access Net Return and Average Net Investment				
	2007	Growth Factors	2008	2009
Net Return	\$ 5,901,059,000	10.4%	\$ 6,514,769,136	\$ 7,192,305,126
Avg. Net Investment	\$ 7,579,266,000	-9.6%	\$ 6,851,656,464	\$ 6,193,897,443
Rate of Return	77.9%		95.1%	116.1%
Resulting Overcharge	\$ 8,310,109,588		\$ 9,455,074,541	\$ 10,692,167,348
Incremental Additional Overcharge			\$ 1,144,964,953	\$ 1,237,092,807

The process by which the initial deadweight loss experienced within the telecom sector percolates throughout the overall US economy occurs over a number of years. Additionally, in each subsequent year, the combined effect

24. (...continued)
curve, thus reducing profits and lowering rates of return. This, of course, has not happened.

of decreasing costs and growing demand require additional annual downward rate adjustments in order to maintain earnings at the “competitive” 11.25% level.²⁵ Using the projections of the level of excessive special access prices for 2007 through 2009 (per Table 2 above), and applying the economic growth and jobs factors as calculated from the AT&T Study, it is possible to estimate the total economic harm resulting from the excessive special access rates. If a price reduction sufficient to bring the realized special access rates of return back to the FCC’s last-authorized 11.25% level had become effective as of the beginning of 2007,²⁶ the economywide benefit would be 95,000 additional jobs and \$17.2-billion in additional GDP for 2007 alone. As shown in Table 3 below, over the full 2007-2009 period – and assuming the additional annual rate adjustments are made so as to maintain rates at the 11.25% “competitive” level, some 234,000 new jobs would have been created through the end of 2009, and the GDP gain for the three years combined would be in the range of \$66-billion.

Sensitivity analysis of the AT&T model

As we discuss in more detail in Appendix 1, the RBOCs’ efforts to discredit the AT&T study go mainly to its *precision* rather than to its basic theory or approach. The RBOCs focused their criticisms primarily at certain input data and assumptions rather than at the underlying macroeconomic model or modeling methodology. Importantly, while lobbying a variety of criticisms, the RBOCs themselves never actually identified any specific alternative quantitative inputs or assumptions that might have been substituted for those incorporated into the AT&T Study. At best, their criticisms go to the *precision* of AT&T’s results, and not to their fundamental substance. Moreover, from our own review of AT&T’s analysis, it is apparent that, if anything, AT&T had applied *conservative* assumptions and, in some cases, actually failed to consider certain additional adjustments that would have resulted in higher estimates of the adverse economic effects of the overpriced special access services.

The RBOCs’ criticisms can be summarized as follows:

- They challenged AT&T’s use of FCC ARMIS data as the basis for calculating the realized rate of return on special access;
- They challenged the AT&T model’s assumption of a unitary (–1.0) price elasticity for special access services.

25. Such additional annual downward price adjustments can be accomplished under a price cap regime through application of a productivity offset factor, or through direct reinitialization.

26. In March of 2007, the FCC accepted certain “commitments” that had been offered by AT&T in order to gain FCC approval of its merger with BellSouth. One such “commitment,” which became effective as of April 5, 2007, requires AT&T to roll back DS-1, DS-3 and Ethernet special access rates in Phase II pricing flexibility areas to “rates that are no higher than and on the same terms and conditions as their tariffed rates, terms and conditions ... for such services in areas within its in-region territory where it has not obtained Phase II pricing flexibility.” However, under the terms of the commitment, “these discounted rates are temporary and automatically sunset on June 30, 2010 ...” Moreover, “services purchased via pricing flexibility contracts that specify fixed price for such services are excluded from these discounted rates.” SWBT D and J Transmittal No. 3192, filed March 29, 2007. Although these merger concessions have provided significant, albeit temporary, relief for special access customers, for purposes of our estimate of the aggregate economic effect of the overpriced special access rates, we have purposely not made any adjustment to account for these limited and temporary concessions due to their relatively small, short-lived, and unquantifiable nature, and their applicability solely to AT&T services. These minor concessions on the part of AT&T fall far short of addressing, let alone eliminating, the significant harm to the US economy that we have here attempted to estimate.

Table 3			
Economic Impact of the Reduction of Special Access Prices to Competitive Levels (Adjusted for Growth in Special Access Supply and Demand)			
	2007	2008	2009
Impact on GDP			
2007 Base Year Impact on GDP (\$ billions)	\$ 17.2	\$ 21.5	\$ 20.0
2008 Growth Impact on GDP (\$ billions)	–	\$ 2.4	\$ 2.9
2009 Growth Impact on GDP (\$ billions)	–	–	\$ 2.6
Total Annual Impact on GDP relative to base year	\$ 17.2	\$ 23.9	\$ 25.6
Cumulative Impact on US economy	\$ 17.2	\$ 41.1	\$ 66.7
Impact on US domestic employment			
2007 Base Year Impact on Employment	95,000	196,000	193,000
2008 Growth Impact on Employment	–	13,000	27,000
2009 Growth Impact on Employment	–	–	14,000
Annual gain in Employment	95,000	114,000	25,000
Cumulative Impact on Employment	95,000	209,000	234,000

Because these criticisms – to whatever extent they may have merit – go solely to the *magnitude* of the macroeconomic impact estimated by the model, but do not alter the model’s core finding – that the persistent excessive pricing and supracompetitive earnings that the RBOCs have been able to extract from their fundamentally *noncompetitive* special access services have had and will continue to have material adverse consequences for the US economy and for US employment overall. As such, the overall importance of the AT&T analysis and its impact estimate remains largely unchallenged. (We address the specific RBOC criticisms in Appendix 2 to this report.) The insubstantial nature of the RBOC criticisms can best be demonstrated through a series of sensitivity analyses that, solely for sake of discussion, substitute the *types* of reduced special access earnings that (in theory) might be identified were the various deficiencies in ARMIS data being claimed by the RBOCs somehow rectified.

As we discuss in Appendix 1, the RBOCs claim that, for various reasons, the level of investment being reported in ARMIS understates what should properly be ascribed to the special access category. By understating capital investment, the apparent return on that (understated) investment is correspondingly being overstated. At the same time, however, the RBOCs fail to note that the alleged “misallocations” may cut both ways. In its *Broadband Wireline Internet Access (“BWIA”) Order*, the FCC specifically directed the RBOCs *not to assign or allocate costs associated with new broadband services – services that were deregulated by the BWIA Order itself*²⁷ – to the

27. *In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160©) with Regard to Broadband Services Provided Via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided Via Fiber to the Premises; Consumer Protection in the Broadband Era*, CC Docket No. 02-33; CC Docket No. 01-337; CC Docket Nos. 95-20, 98-10; WC Docket No. 04-242; WC (continued...)

*Nonregulated category in ARMIS.*²⁸ As a consequence, the recent and ongoing RBOC investments in DSL and mass market broadband infrastructure that is used to provide high-speed Internet access – such as Verizon’s *FiOS* and AT&T’s *Project Lightspeed* — services that are not even classified as regulated telecommunications services by the FCC – are being carried “above the line” in the *Regulated Services* category per Order of the FCC and are thus *included* in aggregate reported special access category investments. Whatever portion of these investments are allocated to special access has the effect of overstating the special access investment base and correspondingly *understating* the realized rate of return on special access services. The RBOCs, of course, have pointed only to those aspects of ARMIS where, arguably, special access investment is overstated, but have ignored areas of understatement.

Nowhere have the RBOCs offered any alternative allocation that would presumably be more accurate, nor does the Commission provide any alternative data upon which such a calculation could be based. In conducting our sensitivity analyses, then, we have substituted alternative values for the special access rates of return that are presented in ARMIS. As we show in Table 4 below, the resulting profit levels would still be excessive, and their resulting economic impacts would still be substantial even if earnings as reported in ARMIS are arbitrarily reduced by 10%, 15% or even by as much as 20%.

Table 4				
Economic Impact of the Reduction of Special Access Prices to Competitive Levels Sensitivity Analysis–ROR				
	ARMIS-reported Special Access Rate of Return reduced by			
	0% (base case)	10%	15%	20%
2007-2009 Cumulative GDP impact	\$66.65	\$56.94	\$52.08	\$47.22
2009 Job Impact	234,037	200,382	183,553	166,724

At the same time, and as we have noted above, by failing to allocate RBOC broadband investments to the *nonregulated* category, special access category capital investment (and associated operating expense) levels *include investments and costs that are required to support “below-the-line” nonregulated activities, and so their inclusion in the regulated special access category has the effect of overstating category investment (and associated expenses) and correspondingly understating realized special access category rate of return.* Table 5 below examines the effects of *removing* the recent RBOC investments in fiber deployment aimed at mass market broadband services – i.e., Verizon’s *FiOS* and AT&T’s *Project Lightspeed* – from the special access category rate base. ARMIS provides financial results on a total company basis, and separates revenues and investments into regulated and non-regulated categories. Fiber deployment, currently unregulated, should properly be assigned to the nonregulated ARMIS category. However, if RBOC claims to investors are to be believed, some \$15-billion has already been invested

27. (...continued)
Docket No. 05-271, 20 FCC Rcd 14853, 14863-5 (2005).

28. *Id.* at 14926,

into fiber plant.²⁹ However, ARMIS only identifies about \$1.7-billion in aggregate net investment in the nonregulated category, suggesting that all – or a significant portion – of this broadband investment is being carried above the line and that a significant portion thereof is being allocated to the special access service category. (The details of this calculation are described in Appendix 1.) The effects of this *understatement* of returns, in combination with the possible overstatement being claimed by the RBOCs, puts the estimated 77.9% rate of return squarely in the middle of the range of possible returns as calculated by varying the underlying cost allocation assumptions.

Table 5 Economic Impact of the Reduction of Special Access Prices to Competitive Levels Sensitivity Analysis – Effect of Shifting RBOC Broadband Investment to Nonregulated Services Category		
	ARMIS-reported Special Access category investment	
	unadjusted – broadband investments included in “regulated services” category	adjusted to exclude broadband investments from the “regulated services” category
2007-2009 Cumulative GDP impact	\$66.65	\$69.12
2009 Job Impact	234,037	241,993
2006 RBOC Special Access ROR	77.86%	94.28%

It is also important to note that, in the intervening time since the AT&T Study was performed, the relative economic importance of special access services has grown substantially. Since 2003, the US has experienced economic growth of approximately 3% per year. During this same time period, demand for special access service has increased at a much more rapid pace. RBOC special access revenues and net returns have increased by 5% and 10% respectively. As measured in terms of total transmission capacity, demand for special access services has increased even more rapidly, on average by approximately 26.5% per year – growing fully nine times as fast as the US economy as a whole.

This growth in demand is representative of the overall increase in the importance of special access services economywide. In an increasingly globalized economy, and as technology (especially the Internet) evolves and becomes a more important part of doing business, it is not surprising that more businesses, institutions and governments at all levels are relying more heavily upon dedicated special access circuits for voice and data. As special access service becomes more integral to businesses, the economic impacts of the overpricing of special access are magnified – the more special access services are used as essential business inputs throughout the economy, the greater the adverse impact that sustained overpricing of special access has for the economy overall. Given that the rate of growth in demand for special access services over the past three years has been anywhere from two to nine times the US economywide growth rate, the economic impact as calculated by the AT&T Study and as used here is likely quite conservative.

29. See Appendix 1.

Even assuming, *arguendo*, that the AT&T Study had miscalculated the economic benefits of reducing special access prices, producing an overstatement of the benefits from such a reduction by as much as 50%, the resulting economic impacts are still immense. In Table 6 below, we provide the results of an additional sensitivity test, demonstrating that even if our estimate of the extent of special access overpricing is high by as much as 50%, even these (theoretically) lesser overcharges would still be costing the US economy a loss of \$10-billion in GDP and a loss of more than 96,000 jobs.

Table 6			
Economic Impact of the Reduction of Special Access Prices to Competitive Levels			
Sensitivity Analysis – Effect of Applying Different Overcharge Estimates			
	Estimated Special Access overcharge reduced by		
	50%	25%	10%
Impact on GDP (\$billions)	\$10.02	\$15.02	\$18.03
Impact on Employment	96,455	144,683	173,620

Conclusion

The sensitivity analyses presented here are offered solely for the purpose of demonstrating the fundamental robustness of our economic impact projections, which we believe are both reasonable and, if anything, conservative. The utter lack of meaningful competition for these services coupled with the FCC’s “pricing flexibility” policy – a policy that is *premised upon the existence of competition in this sector* – has enabled the RBOCs to impose supracompetitive prices that exceed the competitive level by more than \$8-billion annually. These excessive charges create large-scale deadweight losses both within the telecom sector itself as well as across the US economy generally, as the excessive prices for these services ripple across all economic sectors for which special access is, directly or indirectly, a major input. Looking just over a three-year time horizon, we estimate the aggregate impact upon US GDP at some \$66-billion, resulting in an employment impact of nearly a quarter of a million US jobs. Although our analysis is limited to a three-year time frame, if the lack of effective competition and lack of meaningful regulation persist, so too will the ongoing adverse impacts.

3

EXCESSIVE SPECIAL ACCESS PRICES AS A SERIOUS POLICY FAILURE

The Special Access market is not competitive, and the standards that the FCC has utilized to assess its competitiveness are flawed in both theory and practice.

There is no mystery about the source of the supracompetitive prices that ILECs are able to charge for special access services. Even in the largest and most densely populated business centers and after more than two decades of trying, competitors have succeeded in deploying facilities to only a few thousand buildings nationwide, and have captured an insignificant share of the special access market, particularly where the requirement is for service at or below the DS-3 level. While in other contexts the FCC has actually recognized that the entry barriers must be analyzed on a building-specific basis, here it has stubbornly defended the use of an MSA-wide geographic market for purposes of applying its pricing flexibility rules. Outside of the central business district, competitive entry is even less likely, yet under the FCC’s “triggers” approach is presumed to exist uniformly throughout the entire metropolitan area whenever the CLEC presence (as measured by the number of ILEC wire centers with collocations) has reached the arbitrary threshold that the FCC has established.

Despite the nominal presence of competitor facilities in some commercial buildings, the market for special access services is not competitive. In addition to evidence that the AdHoc Committee and others have presented to the FCC about rising prices and escalating ILEC earnings, the FCC has received (but has for the most part ignored) substantial direct evidence that reveals serious problems with the “trigger” analysis it uses to qualify ILECs for pricing flexibility in specific MSAs. This evidence clearly shows that the level of competition assumed to exist has been improperly extrapolated from isolated instances of building-specific competitive entry and, on the whole, is grossly exaggerated.

In the Appendix 3 of this Chapter, we review the “trigger” approach adopted by the FCC as the sole basis for establishing the sufficiency of competition for special access services to justify the elimination of continued price regulation. We show that the conditions being assessed by use of these “triggers” have virtually nothing to do with the economic factors upon which a CLEC will base a decision to deploy fiber to any particular building. Finally, we confirm the fundamental inadequacy of the FCC’s market analysis by presenting empirical evidence as to the absence of actual competition in precisely those markets in which the FCC’s “triggers” have nominally been satisfied and in which pricing flexibility for special access services has been implemented.

“On the ground” experience under pricing flexibility compels the conclusion that special access service – particularly at the DS-1 and DS-3 levels – is not subject to effective competition.

The standard contained in the Special Access Pricing Flexibility rules has been so easily satisfied that, since 1999, the large ILECs serving most major (and many minor) urban markets across the US have obtained extensive pricing flexibility – despite the absence of any actual competitive presence in the overwhelming majority of commercial buildings nationwide. Because the rules are so poor a predictor of competitive conditions, it should come as no surprise that the ILECs’ pricing responses upon obtaining pricing flexibility bear no resemblance to the pricing responses that would occur in a competitive market. As documented repeatedly in a variety of FCC proceedings, the experience of *actual customers* – such as the members of the Ad Hoc Committee and others³⁰ – confirms that the ILECs have increased, not decreased their prices for high capacity services in those areas where they have been granted Phase II pricing flexibility. In many cases, almost unbelievably, those prices are now higher than the prices for areas still regulated under price caps.

For example, Verizon’s price for a ten-mile DS1 special access circuit (using two channel terminations and ten miles of interoffice mileage) in downtown Providence, RI (a city designated for Phase II pricing flexibility) is presently \$914.82 per month – 30% higher than the \$701.80 price that would be in effect if Providence had not been granted Phase II flexibility. Verizon maintains three pricing schedules for the territories comprising the former NYNEX states – i.e., Massachusetts, New York, and the remaining New England states – but the results would be quite similar for any MSA in which pricing flexibility has been made available in those states, although the exact price levels would differ. In downtown Manhattan – perhaps the most competitive telecommunications market in the US – the price for DS-1 special access between two locations served by the same wire center would be \$387.76, more than \$30.00 (i.e., close to 10%) higher than the rates that would be in effect if the Commission had not granted Phase II pricing flexibility to NYNEX for New York City.³¹ Even in Manhattan, with its enormous telecom demand and business concentration, the level of competition is not sufficient to constrain Verizon’s prices.

In another example, the price for a ten-mile DS1 special access circuit (with two channel terminations and ten miles of interoffice transport) offered by Qwest in downtown Seattle (a city also designated for Phase II pricing flexibility) is presently \$582.00 per month - almost 50% higher than the \$394.60 price that would be in effect if Seattle was still subject to price caps. For a DS- 3 circuit with the same attributes, the price in the putatively competitive Phase II area is presently 68% higher (\$5,900 versus \$3,520 in areas in which the FCC’s limited price cap rules remain in effect. The prices being charged in areas in which pricing flexibility had been granted by the ILEC operations of the “new” AT&T (the former SWBT, Pacific Bell, Ameritech and BellSouth companies) were, like those in Verizon and Qwest territories, higher than the price cap regulated prices until April of 2007, at which point they were temporarily rolled back to price cap levels as part of the merger conditions that accompanied the

30. See, *CC 01-321 Ad Hoc Comments*; See also, *AT&T Corp. Petition for Rulemaking To Reform Regulation of Incumbent Local Exchange Carrier Rates For Interstate Special Access Services*, RM Docket No. 10593, *WorldCom Comments*, filed December 2, 2002 p. 1 - citing Qwest Corporation Transmittal 145 (filed October 31, .2002), increasing DS1 rates virtually across the board in pricing flexibility MSA, Density Zone 1; and *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, *Reply Comments of Sprint*, filed July 17, 2002 (“01-338 Reply Comments of Sprint”) at pp. 24-25 (discussed in more detail below).

31. Verizon Interstate Access Tariff, FCC No. 11, Secs. 30, 31.

FCC's approval of the AT&T BellSouth merger.³² Until that time (and presumably again once this particular merger condition sunsets), the prices that we examined ranged to as much as 17% higher in pricing flexibility areas than in areas still subject to price regulation. For example, the month to month price for a 10-mile DS-1 circuit in San Francisco, California (a Phase II pricing flexibility city in former Pacific Bell territory) was \$495 per month compared to \$410 in those parts of California still subject to price caps. Identical comparisons of similar "new" AT&T prices in Illinois (former Ameritech territory), Texas (former SBC territory) and Georgia (former BellSouth territory) revealed pricing differentials of 1%, 8% and 35%.³³

When it removed the generally available pricing for special access from under price caps and Part 69 rules, the FCC expressed its expectation that market forces would "govern" the rates for these access services.³⁴ However, as these examples demonstrate, comparing the prices for the generally available special access services in MSAs where Phase II Pricing Flexibility has been granted with the prices still set in accordance with the Commission's price cap and Part 69 rules – for the same services, from the same companies, and in the same states and density zones – reveals a consistent pattern of *higher* prices being charged in the Phase II MSAs – areas for which the "triggers" had been satisfied and for which the inference of "actual or potential competition" had been made. Notably, *our review did not identify any instances of lower prices being charged for generally available services in Phase II MSAs.*

The GAO study also confirms AdHoc's assessment that special access price levels in the putatively competitive areas subject to pricing flexibility are higher than in areas where price regulation remains in effect. In addition to showing the overwhelming ILEC dominance of special access facilities discussed in Appendix 3, the GAO Report provides conclusive evidence that prices for special access services in areas subject to Phase II pricing flexibility are higher than they would have been had those prices remained subject to some form of FCC price regulation. The GAO Report confirms and corroborates the "on the ground" experience of AdHoc member companies – that the minimal level of competition for special access services is simply insufficient to discipline BOC pricing or otherwise to constrain the BOCs' market power. The pricing findings of the GAO report are discussed in more detail in Appendix 3 to this report.

Triggers or not, whatever "competition" may be present at the DS-1 and DS-3 end of the special access market is having no measurable effect upon ILEC prices. The effect of that competition is purely cosmetic, affording the Bells the ability to promote their deregulatory agenda without actually having to respond in any meaningful way to competitive pressures. As we described in Appendix 3, the FCC's "triggers" are at best "shadow evidence" of competition and in no way demonstrates that competitors are being successful or effective in constraining the incumbent's prices. Persistently high rates of return – now in the triple-digit range for several of the RBOCs – is far more compelling evidence of the *lack of competition*, and should be afforded substantial greater weight than the arbitrary conditions upon which the FCC has based its current policies.

32. *AT&T Inc. and BellSouth Corporation, Application for Transfer of Control*, WC 06-74 Memorandum Opinion and Order, 22 FCC Rcd 5662, Order on Reconsideration, 22 FCC Rcd 6285 (2007). See specifically, Appendix B of the *Order*.

33. An identical analysis of prices for DS3 circuits revealed pricing differentials of a similar magnitude to those found for DS1 circuits.

34. *Id.*, at 14 FCC Rcd 14301, para. 155.

4 | CONCLUSION

For competitive telecommunications to succeed, the US requires a permanent framework that ensures wholesale access to ILEC local distribution facilities

The flexibility to adapt its regulatory framework to industry conditions should, in theory, be a powerful and positive tool for the FCC. However, when the results of this flexibility are undeniably at odds with the core objectives of the *Telecommunications Act* – to ensure just and reasonable rates and to promote the development of competition – it is clear that the flexibility is being misused. Protracted rulemaking delays (exemplified by the nearly 5-year-old special access proceeding³⁵), persistent litigation initiated by the ILECs (such as the constant barrage of forbearance petitions), and regulatory requirements that are set to expire based upon arbitrary “sunset” dates, all combine to create enormous regulatory uncertainty. This, in turn, undermines investor confidence, which serves to make the potential for facilities-based investment even more remote.

Although today’s telecommunications industry is much changed from the industry of thirty years ago, special access services are still supplied by a small number of very large incumbents, each with ubiquitous coverage within its respective service footprint. Given the numerous advantages of incumbency and the many barriers to ubiquitous entry by competitors, it is highly unlikely that a broad, competitive market for special access services will develop any time soon, *if ever*. Indeed, it is critically important to once and for all dispel the notion that we are close to completing a “transition” to some future telecommunications market in which ubiquitous effective competition, rather than pervasive monopoly, will be the order of the day. The results of this uncertainty are exemplified by the collapse of the nation’s largest CLECs. In the years following the *1996 Act*, the major US interexchange carriers – AT&T and MCI – together with numerous start-up CLEC ventures such as Focal, CoreCom and Allegiance, invested more than \$72-billion to pursue business models premised upon the availability of unbundled network elements – including UNE switching and the UNE Platform – at TELRIC-based rates. As soon as the FCC changed the rules of the game – by ending the ILECs’ obligation to provide these essential inputs at cost-based rates – the aggregate market capitalization of non-ILEC telecom firms in the US began to collapse, falling from its 1999 high of \$429-billion to only \$65-billion as of the end of 2004.³⁶

35. *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM-10593, *Petition for Rulemaking* (filed Oct. 15, 2002).

36. *See*, <http://finance.yahoo.com> (accessed August 1, 2006); New Paradigm Research Group (“NPRG”) *CLEC Report 2004*.

Conclusion

Continued pursuit of this fundamentally unachievable goal (of multiple, ubiquitous, competing facilities-based networks) simply infuses additional regulatory uncertainty and deters investment in competitive facilities that might otherwise take place. Thus, it is critical that the FCC be required not only to restore but also to *maintain indefinitely* policies that ensure stable, just and reasonable prices for special access services, putting an end once and for all to the disruptive cycle of persistent litigation (including whatever new deregulatory or forbearance initiatives the incumbents might dream up).

Appendix 1

RBOC “EXPLANATIONS” FOR THEIR EXCESSIVE EARNINGS ON SPECIAL ACCESS SERVICES

The RBOCs’ Special Access services are generating excessive levels of profit

The fact that RBOC special access rates are not even remotely constrained by competition is reflected in the actual rates of return that these companies have been able to earn since the FCC lifted the price caps for these services. As illustrated in Figure A1 below, the average return on interstate special access services has been climbing steadily since 1996, such that in the most recent reporting period there were RBOCs whose earnings were more than *ten times* the 11.25% earnings level last approved by the FCC.³⁷ Three years ago, we reported that the average special access rate of return for 2003 taken across the (then) four RBOCs was 43.7%. For 2006, that composite figure has skyrocketed to 77.9%! Verizon’s return on special access for 2006 was 52%, BellSouth’s was 66%, and AT&T (without BellSouth) and Qwest were at the rarified levels of 120% and 132%, respectively.³⁸ As Figure A2 demonstrates, RBOC rates of return on interstate special access have been rising steadily since 1996 – confirming that the FCC’s decision to afford pricing flexibility to these services was premature. Sustained – and escalating – earnings at these levels could not occur under the kind of competitive market conditions that are implicit in the FCC’s deregulatory policies.

For obvious reasons, the RBOCs have attempted to discredit these earnings calculations, claiming that they are overstated because they have been derived from regulatory accounting data. We address each of the RBOCs’ claims in the remainder of this Appendix and show them to be without merit. Indeed, as we also document here, the RBOCs have initiated large-scale investment programs aimed at constructing facilities needed to support various *nonregulated* broadband “information services” (i.e., high-speed Internet access) and video distribution services, yet for regulatory accounting purposes these capital outlays are being carried “above the line” – i.e., as regulatory “rate base” assets. In so

37. The last time that FCC established an “authorized rate of return” for the RBOCs was in 1990, and the Commission set the rate at 11.25%. *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 89-624, Order, FCC No. 90-315, 5 FCC Rcd 7507 (1990). That rate was intended to be a proxy for what the RBOC could earn in a market where its rates were constrained by competition, based on then-current market conditions (including capital costs). In fact, at the time the 11.25% rate was set, market interest rates were considerably higher than they are today. Considering that the most recently authorized rate of return was adopted in 1990 at a time when the prime rate was 10% and the 10-year US Treasury Bond rate was 8.89% (September 1990), allowing earnings of this level would be extremely generous. Today, those rates are 8.25% and 5.1% (June 2007) respectively. Federal Reserve Board, *Statistics: Releases and Historical Data*, <http://www.federalreserve.gov/releases/h15/data.htm#fn3>, (accessed July 12, 2007). If the Commission were to actually reset an authorized return level, it would most likely be in the 9% to 10% range – considerably less than that now-ancient 11.25%. Thus, were the regulatory process of setting an authorized rate of return to be repeated under current market conditions, the authorized rate of return would in all likelihood be lower than 11.25%.

38. Calculated from data in the FCC’s ARMIS Report 43-04, Table 1 for year end 2006

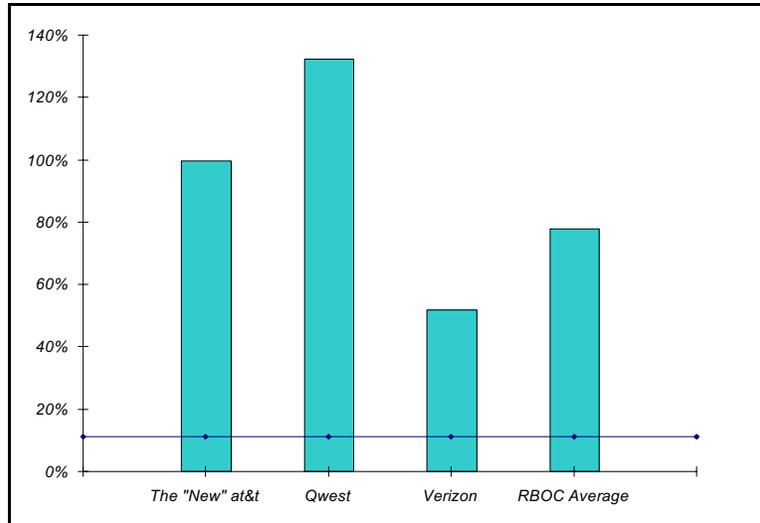


Figure A1. RBOC realized rates of return on Interstate Special Access Services, 2006.

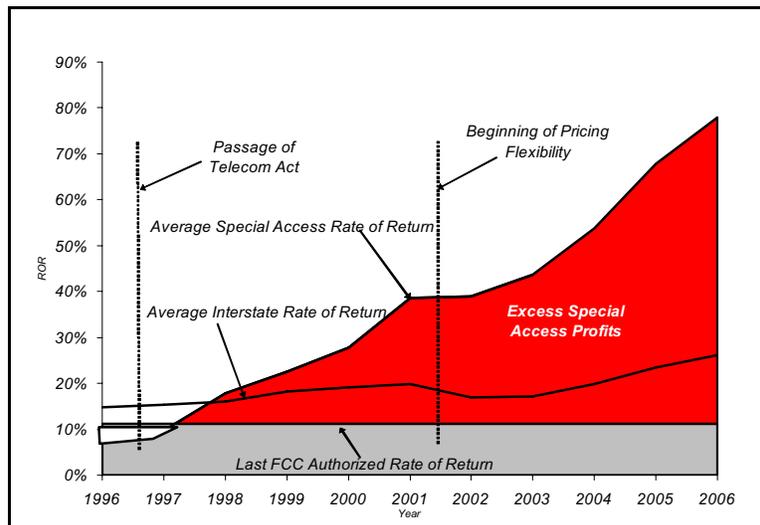


Figure A2. RBOC rates of return on Interstate Special Access services have been escalating to astronomical levels as a result of the FCC’s premature deregulation of special access prices.

doing, the RBOCs inflate the value of assets assigned to *regulated services*, and corresponding *understate* the net return on those (inflated) assets being derived from regulated telecommunications services. To the extent that a portion of these broadband facilities investment programs are being allocated to the special access category, special access category rates of return, as reported in ARMIS, are being understated, perhaps by a substantial amount.

Sustained earnings at these extreme levels are unheard of in competitive markets. With rates of return near or in excess of 100%, if entry were possible the onslaught would make the California gold rush look like a short queue at a supermarket checkout counter. But economic conditions do not permit the significant entry required to create such competition, which explains why there can be no “gold rush” to cash in on these extraordinary profit levels. And without entry, the RBOCs’ earnings on special access services have not only been sustained, they have continued to

climb – and each year that the RBOCs overearn is another year that American businesses with no available competitive alternatives are forced to overpay for special access and thus divert funds that could be used for other productive purposes, adopting less efficient solutions and undermining their own productivity and competitiveness.

The RBOCs’ efforts to disown their own accounting data

Confronted repeatedly with evidence of their excessive special access earnings, the RBOCs have created a series of story lines that attempt to explain away the \$8-billion in overcharges. It is, after all, far easier for the Bells to challenge the data than to try to face the daunting task of trying to explain away their persistent ability to extract triple-digit earnings from services they claim to be “fully competitive.” Problem is, it is the Bells’ *own data* – reported by the RBOCs themselves in the FCC’s Automated Reporting Management Information System (“ARMIS”)³⁹ – that confirm their excessive special access earnings levels. While their rhetoric has evolved over the past several years, the basic thrust of the Bells’ response remains essentially the same: ARMIS contains arcane and irrelevant regulatory accounting data; ARMIS data were never meant to “set” prices; ARMIS data is meaningless in the face of new “digital” technologies; the revenues associated with residential broadband services (DSL) are booked to special access but the costs are not; a “freeze” of the allocators in certain cost categories implemented several years ago has rendered the data unusable;⁴⁰ and on and on. Much like the Wizard of Oz directing Dorothy to “pay no attention to that man behind the curtain,” the utter transparency of the RBOCs’ attempt at misdirection is easily visible.

The cost and revenue data being reported by the RBOCs to the FCC through ARMIS is neither arcane nor irrelevant. It is “regulatory” accounting data developed according to a strict set of accounting rules by utility accounting experts. This accounting data does – and is intended to – differ from the “financial” accounting data reported by the RBOCs to their shareholders and to the SEC. The relevant differences are principally with respect to two areas – depreciation and asset valuation. Ironically, if financial accounting were utilized instead of regulatory accounting, the likely outcome would be *even higher rates of return than those being reported to the FCC*. ARMIS reporting is done at the *service category* level, which requires that certain categories of cost that support multiple services – e.g., switched access and special access – be “allocated” among the several services. While the nature of such allocations – which are accomplished at an aggregate level – may be less than *precise*, that does not make them inaccurate or useless for purposes of regulatory analysis as the Bells contend. The Bells claim that ARMIS data was never intended to be used to set prices, but evaluating earnings levels through analysis of regulatory accounting data is not setting prices.⁴¹

39. ARMIS is simply a tool (a series of standardized reporting forms and an electronic interface) for reporting the accounting results generated by application of the FCC’s accounting rules (CFR Parts 32, 36, 64 and 69) to the BOCs revenues, expenses and investments.

40. This particular criticism has of late been voiced by several state regulators and state consumer advocates as well. State regulators’ blossoming interest in investigation of the earnings levels of a specific service category of federally-regulated services is likely driven by unfounded fears that any revenue reductions that might be ordered for the interstate special access category would, of necessity, need to be made up from increases in state regulated rates.

41. Indeed, in other contexts, the RBOCs have cited insufficient earnings levels derived from the same type of ARMIS data as a rationale for *raising prices*. For example, in May 2003 in Federal District Court in Chicago, Illinois, just five months after having challenged the use of ARMIS data for evaluating the reasonableness of special access prices in FCC RM 10593, SBC relied specifically upon ARMIS results to support its contention that UNE rates were not covering their costs. According to SBC’s expert witness:

SBC Illinois’ average revenue per loop (for UNE-L) and revenue per line (for UNE-P) per month is substantially below the costs that SBC Illinois recognizes on its books to provide those UNEs. I used the FCC’s financial accounting information as reported in its Automated Reporting Management Information System (“ARMIS”) files to
(continued...)

The RBOCs’ second misleading claim is that the way the costs and revenues associated with the introduction of digital facilities are handled under ARMIS causes their earnings to be overstated. The public telephone network has always been comprised of joint and common plant used to provide multiple services to different customers, and there is nothing about the use of “digital” technology or “fiber optic” facilities that makes that any different today than it was 10, 20 or even 50 years ago. Even if and to the extent that residential broadband (DSL) revenues are being booked to the special access category and residential broadband (DSL) costs are not (a fact that no RBOC has ever *documented*), why has no carrier making that claim ever undertaken the relatively simple task of removing those DSL revenues and recalculating the special access returns to demonstrate that it solves the problem?⁴² Finally, unfounded assertions aside, the “freeze” that the FCC implemented in 2001 to certain “factors” used to develop the regulatory accounting results reported in ARMIS was undertaken specifically to maintain the ARMIS results as a viable regulatory tool – and we are aware of no evidence presented to date quantifying any changes in amounts that should have or would have been allocated differently to special access absent that freeze.

41. (...continued)

obtain the historical cost data specifically for SBC Illinois. These data are reported to the FCC for purposes of tracking the interstate rate of return and are subject to a highly detailed set of reporting guidelines.

See, Affidavit of Debra J. Aron on behalf of SBC in United States District Court for the Northern District of Illinois, Eastern Division, Case No. 03-C3290, filed May 27, 2003.

Several months later, in December 2003 SBC was joined by USTA and other BOCs in lauding ARMIS as the source for the “actual” costs of UNEs in the response to the FCC’s *TELRIC NORM*. See, e.g., *Review of the Commission’s Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, *Comments of United States Telecom Association*, December 16, 2003, at p. 10; *Comments of the Verizon Telephone Companies*, at pp. 40, 46, 58, 94; *Opening Comments of SBC Communications, Exhibit A, “The Economics of UNE Pricing,” prepared by Debra J. Aron, PhD and William Rogerson, PhD*, December 16, 2003, pp. 28-32.

Then, one month later, in January 2004, SBC and its sister RBOCs argued to the US Court of Appeals for the District of Columbia Circuit (in opposing AT&T’s Petition for Writ of Mandamus) that “ARMIS data ‘contain arbitrary allocations that are ‘economically irrational.’” See, *In re AT&T Corp. et al.*, No. 03-1397 (D.C. Cir.), *Response of Intervenors in Opposition to AT&T’s Petition for a Writ of Mandamus*, filed January 9, 2004, (“03-1397 BOC Opposition”) at 13.

However, flip-flopping yet again, in testimony filed with the Illinois Commerce Commission as recently as March 5, 2004, SBC again defended the validity of ARMIS as the correct basis for benchmarking UNE costs. Its witness, Dr. Aron, stated,

In the final analysis, ARMIS is no better or worse than any cost accounting system for a large, multiproduct firm. It is subject to strict reporting requirements and a consistent set of rules across carriers. Virtually all cost accounting systems will be subject to the criticism that they make allocations, and to the criticism that any full cost estimate (which, as I noted, includes TELRIC-based UNE prices as well) will reflect such allocations. However, the fact nevertheless remains that accounting systems are the basis for decision making in our economy, and that it is reasonable to look at accounting estimates of costs for benchmarking purposes such as this one.

See, Illinois Commerce Commission, Docket No. 02-0864 SBC Illinois Ex. 2.2 (Surrebuttal Testimony of Dr. Debra J. Aron) (“*Illinois - Aron Surrebuttal Testimony*”) filed March 5, 2004, at p. 9.

42. Close to two years ago a Qwest declarant submitted the only relevant evidence that we have seen on this issues in the FCC’s so-called *Special Access NORM*. (WC Docket No. 05-25, RM-10593) relative to the level of Qwest’s DSL revenues and DSL investment at the time – although quite notably he did not perform the calculation discussed above. AdHoc did perform that calculation (subtracting out the DSL revenues that were purported to have been included in the special access category) and found that Qwest’s special access earnings for 2004 were still in excess of 60% (down from 77% before the adjustment).

There is no evidence that the existing “separations freeze” has resulted in an under-allocation of expenses or investments to the special access category.

In a recent FCC inquiry into possible changes to the current separations rules, the RBOCs and several other parties have claimed that the 2001 “freeze” of separations factors is responsible for the awesome levels of special access earnings.⁴³ The most recent RBOC attacks – claiming that the 2001 “separations freeze” has rendered analysis of earnings levels using ARMIS results meaningless – cannot come even close to explaining the extraordinary levels of special access earnings. The argument here is that because of the “freeze,” the growth in special access demand (lines or revenues) has been greater than the growth in special access investment, and that the different growth rates present proof that special access investment and expenses are being under-allocated to the special access category. While this argument might initially have some facial appeal, upon closer examination it becomes clear *that there should be no expectation that the rates of change in special access demand and investment levels will be in the same proportion.*

One contention is that comparisons of the growth rates in switched access minutes and special access lines as reported to the FCC with the corresponding growth rates in investment and expense levels for those categories indicate that “far too little investment is being recorded as special access investment and excessive amounts of investment are being recorded in other accounts.”⁴⁴ The entire premise of this analysis and the others like it is flawed by reliance upon what are described as special access “line counts.” Comparisons of switched access lines to what are represented as “special access lines” are on their face misleading because, whereas most switched access lines represent discrete physical subscriber loops running between the ILEC wire center and the customer’s premises, each “special access line” is only a unit of bandwidth capacity expressed in terms of DS-0 (i.e., 64 kbps) equivalents. A typical special access service involves a physical facility capable of carrying large-capacity bandwidths ranging from a minimum of 24 voice grade equivalents (DS-1) 672 (DS-3), or even as many as 129,024 VGEs (OC-192). Costs do not vary proportionately with bandwidth capacity, such that a given increment of special access demand will typically have a far lesser impact upon total special access investment than would a comparable percentage change in switched access line demand. As an example, a special access customer subscribing to a single OC-3 line (2,016 VGEs) who decides to purchase additional bandwidth and replaces the OC-3 with an OC-12 (8,064 VGEs) increases its “special access line” equivalents by 300%, yet an OC-12 costs only a small amount (as little as 5% to 10%) more than an OC-3.

Equally flawed are analyses that point to the rate of growth in special access revenues and compare those to the rate of growth in special access investment, and reach the flawed conclusion that investment is being underallocated to the special access category because revenues are growing faster than investments. That is, of course, hardly surprising in view of the escalating rates and profit levels for these services.

Special access and other regulated services rates of return as reported in ARMIS are almost certainly being *understated* due to the inclusion of RBOC capital expenditures made for the purpose of offering *unregulated* broadband and video services within the “regulated services” categories.

While the RBOCs have advanced the notion that ARMIS-reported special access rates of return are overstated due to the effects of the purported “separations freeze,” there is a strong basis to conclude that these RORs are actually being *understated* – perhaps by a significant amount – irrespective of whether the “freeze” does or does not exist. Beginning in about 2004, both Verizon and SBC (now AT&T Inc.) began widescale deployment of broadband infrastructure

43. See various comments filed *In the Matter of Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket 80-286 including Initial Comments of the Idaho PUC at 13 - 19, Comments of NASUCA, NJRPA and ME OPC (“Joint Consumer Advocates”) at 7 and attached Declaration of Robert Loube, and the Joint Comments of the Vermont Public Service Board, Vermont Department of Public Service and Nebraska Public Service Commission at 18 - 22.

44. Loube declaration at 41.

targeted at mass market residential and small business customers. Verizon’s initiative, known as *FiOS* – employs a fiber-to-the-home (“FTTH”) architecture. AT&T’s *Project Lightspeed* design extends fiber close to the customer, but retains a portion of the existing copper distribution segment and the copper drop. Verizon has indicated that it is investing some \$3-billion annually on *FiOS* construction;⁴⁵ AT&T’s annual run rate on *Project Lightspeed* investment is in the \$1.5-billion range.⁴⁶ Through the end of 2006, Verizon had constructed roughly \$9-billion in *FiOS* infrastructure;⁴⁷ AT&T’s cumulative *Project Lightspeed* build-out had amounted to about \$4.5-billion.⁴⁸

Although utilizing different technologies and network designs, both *FiOS* and *Lightspeed* are intended to support high-speed Internet and other IP-based services (such as VoIP and IPTV), as well as the delivery of video services to the residential market in competition with cable television multi-system operators (MSOs) such as Comcast and Time Warner. Importantly, these services – high-speed Internet access, IPTV, and video – have all been deemed by the FCC to be “information services” and as such are *not* regulated telecommunications services.⁴⁹ Revenues derived from these unregulated information services are not reported in ARMIS and are thus excluded from the BOC earnings as reported to the FCC. One would expect, therefore, that the substantial *FiOS* and *Lightspeed* investments and operating costs being incurred by both Verizon and AT&T would similarly not appear in ARMIS as rate base assets or operating expenses associated with regulated services. However, an analysis of both firms’ ARMIS data together with their SEC financial reporting (10-Ks) and other public announcements compels the conclusion that the vast majority of these costs – if not *all* of them – are being booked to the *regulated telecommunications services* category, *even though the associated revenues are not*. Although the RBOC ILECs are not currently subject to rate-of-return (ROR) regulation, inflating the value of their respective rate base (Telecommunications Plant in Service, or “TPIS”) and “above-the-line” operating expenses has the effect of *understating* their realized rate of return, thus making their regulated operations *appear* to be far less profitable, overall, than they actually are.

Consider the following: According to Verizon’s ARMIS filing, total Telephone Plant in Service (“TPIS”) as of the end of 2006 was \$148-billion. Of this amount, only \$3.8-billion, i.e., about 2.6%, was classified as “non-regulated” in accordance with the FCC’s rules, 47 CMR §64.901. Yet Verizon’s capital expenditures for *FiOS* between 2004 and 2006 were approximately \$9.0-billion, \$3-billion of which occurred in 2006 alone. In 2006, total Verizon corporate capital expenditures (“capex”) was \$17.01-billion,⁵⁰ of which \$6.62-billion was reported as being associated with Verizon’s *wireless* operations, and \$224-million were not associated with a reportable business segment.⁵¹ Of the remaining \$10.17-billion, about \$1.6-billion went to the former MCI, which is not reported in ARMIS, leaving about \$8.57-billion of capex in Verizon’s wireline telephone operations. That figure, derived from its public 10-K filing and other public financial disclosures, is only slightly above the \$8.1-billion of gross *ILEC* plant additions being reported to

45. Standard and Poor’s Industry Surveys, Telecommunications: Wireline report, February 8, 2007, at 8-9; Verizon Communications, 10K annual report, filed March 1, 2007.

46. AT&T Inc., 10K annual report, filed February 26, 2007, at 2.

47. Verizon Communications, 10K annual report, filed March 1, 2007; Searcey, Dionne, “Moody’s Cuts Verizon’s Ratings,” *The Wall Street Journal*, December 22, 2005, at C4.

48. AT&T Inc., 10K annual report, filed February 26, 2007, at 2.

49. BWIA Order, *supra*, footnote 28.

50. Verizon Communications, 10K annual report, filed March 1, 2007, at “Portions of Verizon’s Annual Report” note 17.

51. *Id.*

the FCC. Even if the entire difference of \$470-million was associated with *FiOS* investment (which is highly unlikely⁵²), that would still leave some \$2.5-billion of 2006 *FiOS* costs being charged to *regulated telecommunications services*.

While Verizon does not formally identify *FiOS* expenditures in its 10-K, it has provided order-of-magnitude amounts in other public disclosures. Standard & Poor’s reports that, for 2006, “[w]e expect that Verizon will have spent more than one third of its wireline budget on its fiber deployment initiative in 2006...” In fact, an analysis of Verizon’s ARMIS and 10-K reporting together with its various public disclosures indicates that, over the period 2004-2006, Verizon has spent some \$9- to \$10-billion on *FiOS* and appears to have charged virtually of this to TPIS in its regulatory accounting.

A similar pattern exists for AT&T and the former SBC – with expenditures on *Lightspeed* of roughly \$1.5-billion annually, essentially all of which is carried in regulated TPIS. In 2006, AT&T had \$191.7-billion in total TPIS, of which only \$3.5-billion (or 1.8%) was classified as non-regulated. Much like Verizon, according to its 10K, AT&T had committed approximately \$8.5-billion on capital expenditures in 2006, almost all of which is attributable to the wireline segment.⁵³ AT&T’s 2006 ARMIS Total TPIS additions were nearly \$8.6-billion, matching its GAAP capex almost exactly. As with Verizon, it appears that any AT&T investment in *Lightspeed* was booked as additions to total TPIS in ARMIS, and most likely booked as additions to the *Regulated Services* category.

While it is not directly possible to trace the *FiOS* or *Lightspeed* capex that is being carried in the ARMIS Special Access category, there is every reason to believe that the portion of TPIS assigned to special access has been inflated due to the inclusion of these broadband investments. As Table A1 demonstrates, the proportion of total TPIS that has actually been assigned to special access has been *increasing* in recent years; in 2006, special access investments represented some 9.5% of total BOC regulatory assets, up from 8.4% in 2000. For Verizon, some \$3-billion out of the total \$8.1-billion in gross plant additions was associated with *FiOS*. If none of this was classified in the special access category, then one would expect, all else equal, that the special access share of TPIS would have *decreased*; however, precisely the opposite has occurred. Similarly, for AT&T, some \$1.5-billion out of \$8.5-billion in capital spending was associated with *Lightspeed*. All else equal, the special access share of total TPIS should have decreased if *Lightspeed* costs were properly being separated as non-regulated, but much like Verizon, the opposite has occurred.

\$(millions)	2000	2006	Change	% Change
Special Access	\$ 26.6	\$ 35.1	\$ 8.5	31.95%
Other	\$ 289.1	\$ 333.5	\$ 44.4	15.36%
Total	\$ 315.7	\$ 368.6	\$ 52.9	16.76%
Special Access %	8.43%	9.52%	16.07%	

Federal Communications Commission, ARMIS Reports 43-01, Annual Summary Report: Table I, and 43-04, Access Report: Table I YE 2000, 2006. Available at <http://www.fcc.gov/wcb/eafs/> (accessed April 3, 2007).

52. The difference between 10-K and ARMIS reporting likely arises from differences between GAAP and regulatory accounting practices, or from inclusion of nonregulated wireline segment affiliates’ in the 10-K capex figure that are not included in the data reported to ARMIS.

53. AT&T Inc., 10K annual report, filed February 26, 2007, at “Portions of AT&T’s Annual Report” at 28.

For 2006, Verizon reported its realized ROR on special access at 51.78%; for AT&T, the corresponding figure was 99.56%. Removal of whatever *FiOS* and *Lightspeed* investment that had been allocated to special access would have the effect of *increasing* these category RORs. While we do not have access to data at a level of detail sufficient to make these exact adjustments, we can obtain a general sense of the impact of this misallocation by first excluding the broadband investment from the special access category and then by recalculating return on the now-reduced level of category investment. The effects of this calculation are summarized in Table A2 below; the details of the calculation are presented in Table A3 following.

Table A2		
Effect of Adjustments for FiOS and Lightspeed Investment on Special Access RoRs		
	Verizon	AT&T
Special Access ROR per ARMIS	51.78%	99.56%
Adjusted ROR excluding misallocated broadband costs	84.70%	120.20%
See Table A3 for details of the calculations.		

Exclusion of the *FiOS* investment and *FiOS*-associated depreciation expenses from the special access category results in a revised category rate of return for Verizon for 2006 of 83.28%; the corresponding calculation for AT&T – removing *Lightspeed* investment and depreciation expenses, results in a revised category rate of return for 2006 of 119.34%.

Excluding *FiOS* and *Lightspeed* outlays from Verizon and AT&T special access rate of return calculations

Verizon’s *FiOS* and AT&T’s *Lightspeed* initiatives support *nonregulated* “information services” the revenues from which are carried “below-the-line” and not reported as regulatory revenues to the FCC or included within the companies’ respective ARMIS submissions. As we have discussed in Chapter 2, although the revenues from these services have been excluded by the RBOCs in calculating their aggregate and special access category earnings and rates of return, the underlying capital investments and operating costs appear to have been *included* in their FCC reporting. Hence, in order to obtain an accurate assessment of the companies’ rates of return on their respective *regulated telecommunications services* and the Special Access category in particular, it is necessary to identify and to exclude the investments and operating costs that the RBOCs had inappropriately co-mingled with the regulated services costs as reported in ARMIS. In the case of Verizon, as of the end of 2006, cumulative *FiOS* investment is approximately \$9-billion, and special access Telephone Plant in Service (“TPIS”) was \$17.1-billion or about 11.6% of Total TPIS. If the *FiOS* investment is excluded from the special access net investment, Verizon’s actual realized ROR for special access increases to 84.70%. Similarly, for AT&T, cumulative *Lightspeed* investment is approximately \$4.5-billion, and special access TPIS was \$14.3-billion or about 7.4% of year-end 2006 Total TPIS. If the special access portion of AT&T’s net investment is reduced by the special access share of *Lightspeed* investment, its realized ROR for special access increases to 120%.

Table A3				
Effects of Removing FiOS and Lightspeed Investment from the Special Access Category				
		Calculation	Verizon	AT&T
1	Special Access TPIS	Note 1	\$ 17,123,795,000	\$ 14,269,546,000
2	Total TPIS	Note 1	\$ 147,964,224,000	\$ 191,681,179,000
3	Special Access portion of TPIS	L1/L2	11.5729%	7.4444%
4	Cumulative FiOS/Lightspeed Investment	Fns. 47 &48	\$ 9,000,000,000	\$ 4,500,000,000
5	Estimated cumulative depreciation accrual on FiOS/Lightspeed Investment	Note 2	\$ 908,170,000	\$ 423,024,000
6	Estimate 2006 depreciation expense for FiOS/Lightspeed investment	Note 3	\$ 504,539,000	\$ 235,013,000
7	Estimated FiOS/Lightspeed net Investment	L4*L5	\$ 8,091,830,000	\$ 4,076,976,000
8	Allocation to Special Access	L3*L7	\$ 936,461,763	\$ 303,507,089
9	Special Access Average Net Investment	Note 1	\$ 3,941,572,000	\$ 2,907,206,000
10	Special Access Net Return	Note 1	\$ 2,040,781,000	\$ 2,894,512,000
11	Special Access Net Return excluding 2006 FiOS/Lightspeed depreciation expense	L10+L6*L3	\$ 2,099,170,942	\$ 2,912,007,347
12	Average Sp. Acc. Net Investment excluding FiOS/Lightspeed misallocation	L9-L8	\$ 3,005,110,237	\$ 2,603,698,911
13	Special Access ROR	L10/L9	51.78%	99.56%
14	Revised Special Access ROR to exclude FiOS/Lightspeed misallocation	L11/L12	69.85%	111.84%

Note 1: FCC, ARMIS Report 43-04, Access Report: Table I YE 2006. Available at <http://www.fcc.gov/wcb/eafs/> (accessed April 3, 2007).

Note 2: Assumes \$3-billion and \$1.5-billion of annual FiOS/Lightspeed investment in each of three years. A depreciation accrual factor is calculated as: Total 2006 Depreciation Accruals / Total TPIS, which is then applied to the total FiOS/Lightspeed investment for each year, the results of which are summed for the total estimated FiOS/Lightspeed depreciation accrual over the three year period.

Note 3: Equal to the depreciation accrual per Note 2 for the third year of FiOS/Lightspeed investment.

The sole purpose of the *FiOS* and *Lightspeed* investments is to support nonregulated broadband and video services, and these investments would not be made but for the requirements of those services. However, once built, the new broadband plant can be – *and is being* – used to provide traditional voice telephone services (“Plain Old Telephone Service”, or “POTS”). Such use after-the-fact of construction in no sense satisfies the “reasonable and necessary” standard for treatment of a capital expenditure or operating expense as an allowable regulatory cost. In this situation, even if the *FiOS* or *Lightspeed* plant *is being used* to provide Plain Old Telephone Service, to the extent that *preexisting copper plant* could have been used to provide the same Plain Old Telephone Service, the outlays for *FiOS* and *Lightspeed* can in no sense be viewed as “necessary.” Indeed, we understand that Verizon will often (if not always) physically *remove* the copper drop wire when it installs *FiOS* for a given customer, in effect forcing the subsequent use of the *FiOS* fiber optic drop to provide basic local exchange telephone service *even if the customer subsequently discontinues the FiOS-specific Internet and video services*.

Although the FCC’s cost allocation rules, set out at 47 CFR §64.901(b)(4), require that costs be allocated as between regulated and nonregulated services on the basis of *relative usage* of the asset under examination, such an allocation is invalid if acquisition of the jointly-used plant was not *necessary* for the ongoing provision of the regulated service. Thus, by *using* the new plant to provide POTS, the RBOCs seek to manufacture a justification for shifting a portion of their total broadband investment – and, so it would seem, an extremely large part of that investment – out of the nonregulated broadband services and over to regulated telephone services. In fact, an examination of the amount of

gross plant that Verizon and AT&T had each classified as "non-regulated" over the period 2003-2006 confirms that little, if any portion of their respective infrastructures had been booked to the non-regulated category:

Table A4				
Verizon and AT&T "Regulated" and "Non-Regulated" Plant in Service – 2003-2006				
(\$ billions)				
	2003	2004	2005	2006
Verizon Total TPIS	\$140.73	\$142.63	\$143.79	\$147.96
Verizon Non-Reg TPIS	\$ 2.28	\$ 2.42	\$ 2.72	\$ 3.83
% Non Reg	1.62%	1.70%	1.89%	2.59%
AT&T Total TPIS	\$182.48	\$184.57	\$187.74	\$191.68
AT&T Non-Reg TPIS	\$ 3.34	\$ 3.35	\$ 3.32	\$ 3.54
% Non Reg	1.83%	1.82%	1.77%	1.85%
FCC, ARMIS Report 43-04, Access Report: Table I YE 2003, 2004, 2005, 2006.				

Over the 2003-2006 time frame, Verizon's "non-regulated" gross plant grew by only \$1.53-billion, from \$2.28-billion to \$3.83-billion, this despite having expended \$9-billion on *FiOS* during that same period. AT&T's gross plant in the non-regulated category grew by an even smaller amount – \$0.2-billion – from \$3.34-billion in 2003 to \$3.54-billion in 2006, a time frame in which SBC/AT&T had expended some \$4.5-billion on *Lightspeed*. It is useful to compare the change in gross Telephone Plant In Service that has been classified by each of the two companies as "non-regulated" over the 2003-2006 time frame with their respective investments in *FiOS* and *Lightspeed* over that same period:

Table A5			
Verizon and AT&T			
Increase in "Non-Regulated" Plant in Service as Reported in ARMIS			
vs. Reported Expenditures on "Broadband" Construction			
2003-2006			
(\$ billions)			
	Increase in "non-regulated TPIS 2003-2006	Reported investment in "broadband" 2003-2006	Minimum amount of "broadband" investment booked as "regulated" in ARMIS
Verizon	\$1.53-billion	\$9.0-billion	\$7.47-billion
AT&T	\$0.20-billion	\$4.5-billion	\$4.30-billion

Clearly, the investment in nonregulated broadband services grossly exceeds the *incremental* change in nonregulated TPIS as reported in ARMIS. One is thus compelled to the inescapable conclusion that the overwhelming majority of the Verizon and AT&T broadband investment is being charged to, and is thus being cross-subsidized by, the companies' *regulated telecommunications services*.

Appendix 2 | RESPONSES TO RBOC CHALLENGES TO THE AT&T MACROECONOMIC ANALYSIS

In responding to the AT&T Study, the RBOCs (then Verizon, SBC, BellSouth, and Qwest) submitted a study criticizing the evidence presented by AT&T but, importantly, *not the underlying macroeconomic model*.⁵⁴ One of the chief complaints of the RBOC-sponsored study is that the basic premise of the AT&T Study— that special access prices are above those that would be set in a competitive marketplace – is false. The Bell study complains that AT&T relied only upon rates of return generated using ARMIS data to justify this assumption, and went on to suggest that special access prices are already at “Market” levels.⁵⁵ These RBOC criticisms are, of course, devoid of merit or substance.

First, although the RBOCs have repeatedly complained about the use of ARMIS-based special access rates of return for some time – citing issues such as the allocation of costs, the jurisdictional separations freeze, and the fact that ARMIS represents regulatory accounting and not GAAP accounting as used in public financial reports such as the SEC Form 10-K – the RBOCs have never proffered any data that would “correct” the purportedly erroneous ARMIS figures, let alone affirmatively demonstrate that special access rates of return *are* at competitive levels or would be there but for the specific challenges they advance about ARMIS. Similarly, the RBOCs have never put forth any data that would allow for the calculation of special access rates of return based upon GAAP accounting. Other than repeatedly claiming that ARMIS *is wrong*, never have the RBOCs come forward with their own calculations of the rates of return on special access services, or non-ARMIS data that would be needed to support any alternative calculation.⁵⁶

Because most special access rates as subject to “pricing flexibility” and as such are de-linked from the underlying cost of these services, the extent to which the RBOCs have been able to set prices in excess of cost – a long and well-accepted basis for identifying and assessing the presence of market power on the part of the provider – is appropriately measured in terms of the realized rates of return on special access service. As discussed above, ARMIS provides an entirely valid and robust basis for assessing the profitability of RBOC special access services and, in fact, may actually be *understating* the realized return to the extent that capital outlays made for the purpose of creating a mass market

54. Gregory M. Duncan and Mark A. Thoma, *The Macroeconomic Effects of Changing Special Access Line Prices*, December 24, 2003. Ex Parte Submission of BellSouth, Qwest, SBC, and Verizon in *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates For Interstate Special Access Services*, RM Docket No. 10593 (“*RBOC Response*”).

55. *RBOC Response*, at 6 and 8.

56. The RBOCs’ feigned dislike for ARMIS is highly selective. For example, in testimony offered on behalf of SBC in the United States District Court for the Northern District of Illinois, Eastern Division, in 2003, an outside expert claimed that prices for unbundled network elements (UNEs) set below levels based upon regulatory accounting would not be compensatory. See footnote 41 *infra*.

broadband infrastructure (such as Verizon's *FiOS* or AT&T's *Project Lightspeed*) are nevertheless being charged to the special access category. If the special access market were as competitive as the RBOCs claim, new entrants would be attracted by the immense profitability of these services, would push prices down overall, driving RBOC rates of return down to competitive levels. While it may be difficult to define precisely what the competitive return would be in the special access market, it is clear that the potential to generate rates of return in the high double-digit and even into the three-digit range would certainly stimulate a greater deal of interest and entry by rival firms if the barriers to entry were not so formidable as to make such entry all but impossible as a practical matter.

Accepting for the moment the RBOC claims that it is not possible to accurately measure a service-specific rate of return even on a non-service specific basis (it is), it is clear that the RBOCs are achieving excessive interstate returns overall. While not at the stratospheric levels of special access services, the RBOCs earned an impressive 26% rate of return on all regulated interstate services in 2006. On the base of \$30-billion of RBOC interstate revenues, this 26% return, well above the FCC's authorized 11.25% rate of return, the Bells earned \$6.5-billion in net return by charging supra-competitive prices for interstate services, including and especially interstate special access services.⁵⁷

Moreover, to the extent that RBOC claims that regulatory accounting or the separations freeze have affected the precision of ARMIS data carry any weight (which they do not), ARMIS data would still be useful for monitoring year-over-year *trends* and for providing a gauge of the overall order-of-magnitude of rates of return for special access services. As such, the Bells' criticisms of ARMIS-based ROR estimates go not so much to their relative accuracy, but to their *precision*. Even if less than precise down to four decimal places, the ARMIS-based estimate of AT&T's rate of return on special access for 2006 – 100% – would not suddenly drop to only 11.25% or anything remotely close to 11.25% were the various deficiencies in ARMIS as alleged by AT&T and the other RBOCs corrected. In other words, the fact that special access rates of return have been steadily climbing up into the triple digits combined with the possibility that, even if the actual rate of return were 26% and not 100%, ARMIS data provides a clear indication that special access prices far exceed competitive levels.

Secondly, while the RBOCs persist in asserting that special access prices are at "market" levels, they never explain what this term – "market-based" – actually means. What "market-based" *does not mean* in this context is "competitive market prices." Clearly, *some* customers are purchasing special access services at the RBOCs' excessive prices. Hence, by describing their prices as "market-based," all that the RBOCs are saying is that *some* transactions are in fact taking place at those prices. If the "market" operates under monopoly prices and constrained supply, there will still be a "price" at which some transactions take place, albeit far fewer transactions than would occur under competitive pricing conditions. Describing such prices as "market-based" is nothing more than a tautology, and teaches nothing as to what the *competitive* market price (i.e., the market *clearing* price that would prevail in a competitive market) actually is. As a point of fact, to assume that the special access market has remained perfectly competitive (or even moderately competitive) in the face of the SBC/AT&T and Verizon/MCI mergers – when the two largest facilities-based special access competitors were swallowed up by RBOCs – is fatuous at best.

The Bells also argue (rather disingenuously) that there is free entry and exit from the special access market, as evidenced by the fact that there are competitors in the market.⁵⁸ While there are competitors for special access service at a small number of locations where demand is sufficient to justify the construction of facilities, entry and exit to and from the broader special access market can hardly be described as free, and in fact, significant barriers to entry and exit exist. Chief among these are the enormously high fixed-cost investment required to enter this market and the uncertain return

57. Table 1 in the main body of the paper presents the calculation of excessive interstate and special access pricing.

58. *RBOC Response*, at 8.

on that investment.⁵⁹ These entry and exit barriers severely limit competition for special access services, and evidence of the limited, niche market competition that may exist *at the margin* is hardly an indication that market entry is free or would otherwise be possible or profitable for other competitors.

The RBOC response to the AT&T Study does not take direct issue with the use of the Global Insight Macroeconomic model, nor does it object to the use of macroeconomic modeling generally. The RBOC response does, however, criticize the method in which AT&T utilized the Macro model.⁶⁰ Most of these criticisms can be grouped as being based upon the Bell assertion that the special access market is already perfectly competitive, and that reducing special access prices from current levels would create an untenable market price below a competitive equilibrium price. These criticisms, and their basic premise, are categorically false.

The first criticism of the macro model is that “the AT&T Study incorrectly manipulates prices that should be endogenous.”⁶¹ This complaint is based upon the premise that the model is not designed to account for an exogenous change (an FCC regulatory mandate, for example) that might in theory lower the price of a particular service to below the competitive market-clearing level. This concern would only stand if, in fact, the market for special access services were already at competitive levels – which as already discussed is clearly not the case – *and* if in fact the FCC had actually adopted any “exogenous change” adjustment that operated to reduce any *flexibly-priced* special access services – which, of course, it has not. On the other hand, had the FCC ordered such price reductions, regulation would in such a case actually work to bring the excessive special access prices closer to a competitive market level.

The charge is also made that “it is not possible to improve the macroeconomic performance by distorting prices in a particular market,”⁶² and that the AT&T-proposed special access price reductions would actually cause macroeconomic harm in the short run. This claim is also based upon the premise that the proposed price reductions would bring prices for special access to below competitive levels. While it is true that lowering prices below a competitive equilibrium could create economic inefficiency, the RBOCs offer no evidence (other than meaningfully assertions that prices are currently set at “market” levels) that the price reductions being proposed by AT&T would actually take special access prices below a competitive level.

59. In its August 2003 *Triennial Review Order*, the FCC recognized this specific economic reality both with respect to DS-3 and DS-1 levels of service. “... The inability to recover the significant fixed and sunk construction costs of DS3 loops, coupled with the additional barriers to loop deployment associated with accessing rights-of-way; obtaining and paying for building access; and other service provisioning delays impair the ability of requesting carriers to self-provision single DS3 loops. Unlike deployment at even the lowest OCn level, the record indicates that a single DS3 loop, generally, can not provide a sufficient revenue opportunity to overcome these barriers.” *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, FCC No. 03-36, 18 FCC Rcd 16978 (2003) (“*Triennial Review Order*”) at paras. 320, 325.

60. *RBOC Response*, at 20 and 26.

61. *Id.* at 21.

62. *Id.* at 24.

Appendix 3

THE FCC'S FLAWED APPROACH TO EVALUATING COMPETITIVE CONDITIONS

The FCC's approach to evaluating the presence and extent of competition for special access type services is seriously flawed.

Under the Special Access Pricing Flexibility framework adopted in 1999,⁶³ the FCC has attempted to avoid having to make a decision about whether there is competition nationwide for special access services by adopting a regulatory framework that permits pricing flexibility when certain specified criteria are met. To qualify for pricing flexibility, the ILEC need only demonstrate that a competitor is “present” (by virtue of having established a collocation) in a certain percentage of the ILEC’s wire centers within a Metropolitan Statistical Area.⁶⁴ The presumption is that when these threshold criteria – which the FCC refers to as “triggers” – are satisfied, there is then sufficient competition throughout the geographic market (which the FCC defines as the entire MSA) to constrain special access prices to competitive levels.

However, because the specific condition being measured via this “trigger” mechanism – i.e., the existence of CLEC collocations at some threshold number of ILEC wire centers – has little or, in most cases, *nothing* to do with the economic considerations associated with the business decision by a CLEC to deploy competing special access facilities *at a particular location*, the “trigger” device has resulted in fundamental and profound inaccuracies as to both the presence of competition for special access services and, more importantly, as to the ability of such limited competition as may be present to constrain ILEC special access prices to competitive levels. In fact, this standard has been so easily satisfied that there is now full pricing flexibility in most major (and many minor) urban markets across the US, despite the absence of any actual competitive presence in the overwhelming majority of commercial buildings nationwide.

Unfortunately for the businesses and competitors that depend upon special access services, the competitive “triggers” adopted by the FCC have been consistently shown to be poor predictors of MSA-wide competition. Why is this so? Fundamentally, the full MSA is simply far too large a geographic area for assessing the opportunity for competitive entry. An MSA includes not only the core business district of a city, but also the associated residential urban and suburban neighborhoods, small business enclaves, industrial, and mixed-use areas.⁶⁵ The revenue oppor

63. Pricing Flexibility Order, *supra*, fn. 2.

64. The threshold levels are quantified in terms of collocation in a percentage of wire centers, or alternatively, wire centers that account for a predesignated percentage of the incumbent’s revenues, within the MSA.

65. For example, the Omaha MSA is an expansive area spanning eight counties in two states (five in Nebraska, three in Iowa). The full MSA has a population of approximately 766,000 (based upon the 2000 census) and covers an area of 4,363 square miles – more than four times the area of the state of Rhode Island and nearly as large as the state of Connecticut. The
(continued...)

tunities vary widely among these various segments of the MSA. However, even within the central business district, the fact that the revenue opportunity available at one building on a particular street may be sufficient to justify a competitor's investment in its own facilities, the same revenue opportunity may not exist at another nearby building.

The economic considerations that affect the CLEC's decision to deploy fiber optic facilities are *building-specific*. Each time a competitor evaluates whether to extend its network facilities to a particular location, it assesses the costs associated with the deployment and the specific revenue opportunity associated with that location. Cost factors include such things as (1) the cost of providing a lateral connection between the building and the CLEC's fiber ring and (2) the institutional barriers, such as the ability to negotiate for access rights with the building owner. On the other side of the equation, the CLEC must assess the potential level of revenue available if it deploys facilities at that location. Geographical proximity (i.e., being in the same MSA or even the same serving wire center) does not create uniform (or even closely similar) conditions with respect to these key economic considerations. Thus, the fact that a CLEC has successfully deployed facilities to a particular building in a given wire center only shows that the economic conditions for deployment are satisfied with respect to *that particular building*. The same economic considerations may or may not apply to another building served from the same wire center or to other wire centers (including and especially those where no collocations have been established) elsewhere within the MSA.

In its recent report on the effectiveness of the FCC's special access regulation (discussed in more detail later in this chapter), the Government Accountability Office (GAO) also found that the "triggers" in FCC's pricing flexibility rules did not accurately predict either the existence or the effectiveness of competition.⁶⁶ Beyond the findings (discussed above) that actual percentage of buildings with competitive fiber quite low, the GAO observed that (1) "[t]he data also show that the theoretically more competitive phase II areas generally have a lower percentage of lit buildings than phase I areas, indicating that FCC's competitive triggers may not accurately predict competition" and (2) "the data also show that there has been a decline in some MSAs in the level of competitive collocation in the wire centers used by the price-cap incumbents to obtain pricing flexibility." In light of the obvious shortcomings of the FCC's approach, the GAO made a point of doing its analysis at a building-specific level.⁶⁷

In several of the decisions issued since it adopted the pricing flexibility rules for special access, the FCC has actually recognized that the likelihood that a customer in a particular building will have competitive options cannot be

65. (...continued)

urbanized portion of the Omaha MSA includes more than two-thirds of its total population but only 4.1% (about 180 square miles) of the total area. The remaining 4,183 square mile (non-urbanized) portion has a population density of approximately 55.5 per square mile. That the FCC can seriously believe that whatever competitive conditions might exist in downtown Omaha – or in the core business center of any other MSA – can be extrapolated MSA-wide is, if nothing else, a demonstration of bureaucratic rigidity in the extreme.

66. U.S. Government Accountability Office, *FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services*, Report to the Chairman, Committee on Government Reform, House of Representatives, GAO-07-08, November 2006 (GAO Report).

67. "[The GAO's] competition analysis, while not a complete representation of competition, is a more granular view than that taken by FCC in its Pricing Flexibility Order—which was to extrapolate the state of competition throughout an MSA by the presence of competitors' equipment collocated in incumbent firms' wire centers. [The GAO] analyzed the extent of competitive entry in a market at the level of individual buildings—that is, at individual locations where business or government end users would choose from service providers to purchase dedicated access." GAO Report at 22. Even so, the GAO acknowledged that even if competitors "may have a connection to a building, they are unable to connect to businesses on all floors within that building. In this case, our analysis would be overstating the level of competition." *Id.*

predicted on the basis of MSA-wide conditions. In its *Triennial Review* and *Triennial Review Remand* orders,⁶⁸ the Commission specifically acknowledged that competitors require the ability to obtain facilities from the ILEC at cost-based rates, unless there was evidence of end-user demand – *in a particular building* – for capacity of three DS-3 circuits or more. In those orders, the FCC also expressly rejected the notion that making a building-specific determination would be unnecessary if the building was located in an MSA where the ILEC had previously obtained pricing flexibility.⁶⁹ In a similar vein, the FCC rejected Qwest’s request for forbearance from regulation *throughout* the Omaha MSA, finding it more appropriate to determine which specific *portions* of that metropolitan area showed signs of actual competition.⁷⁰ Notwithstanding these subsequent decisions, where the FCC has used a more focused approach to determining where competition exists, and the GAO’s pointed criticisms, the FCC has steadfastly refused to revise its special access pricing flexibility rules.

The FCC’s piecemeal approach to identifying potential *opportunities* for competitive entry also fails to account for a unique aspect of telecommunications service – the customer’s requirement for network connectivity.

Even where competitive fiber is available at a specific location, the CLEC frequently cannot vie for the customer’s business unless it is also able to offer service at all locations required by the customer. Telecommunications differs fundamentally from other types of services and commodities because its purpose is to provide connectivity among multiple locations (i.e., a network). With distribution services like water, natural gas, electricity, etc., a customer is only concerned about getting the service at a particular location; the fact that the same utility also serves other nearby or even distant locations is of no real importance from the customer’s perspective. But in the case of telecom, the value of the service arises from its ability to connect to other locations. Thus, the more extensive a carrier’s network, the greater the likelihood that the carrier will, in fact, have facilities available at both endpoints of any point-to-point connection that is requested by a prospective customer.

As shown in the diagrams in Figure 1 below, the number of potential point-to-point connections that can be created on a network increases exponentially with the number of individual “nodes” on the network. For example, only one possible point-to-point connection can be created on a network serving only two nodes (A-B). A network with three nodes can support three different point-to-point connections (A-B, A-C and B-C); a network with four nodes can support six different point-to-point connections (A-B, A-C, A-D, B-C, B-D and C-D), and so on.

This is a critically important point and is one that is frequently overlooked in the analysis of network-based industries. Suppose that we are analyzing the market for coffee shops, such as Starbucks. Each individual shop serves a limited geographic market defined, for example, by how far a person will walk in order to get a cup of coffee. But as to the specific shop that serves each customer’s relevant geographic market, from the customer’s perspective the number and locations of other shops is largely unimportant. By contrast, in order for the presence of a CLEC in a particular

68. *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, FCC No. 03-36, 18 FCC Rcd 16978 (2003) (“Triennial Review Order”); *Order on Remand*, 20 FCC Rcd 2533 (2005) (“Triennial Review Remand Order”).

69. Triennial Review Order, at para. 114 (“the ‘impair’ test and the test for pricing flexibility are different, reflecting these different aims”); see also, Triennial Review Remand Order, at para. 61.

70. *In the Matter of Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, WC Docket No. 04-223, *Memorandum Opinion and Order*, 20 FCC Rcd 19415, 19417, 19470 (2005).

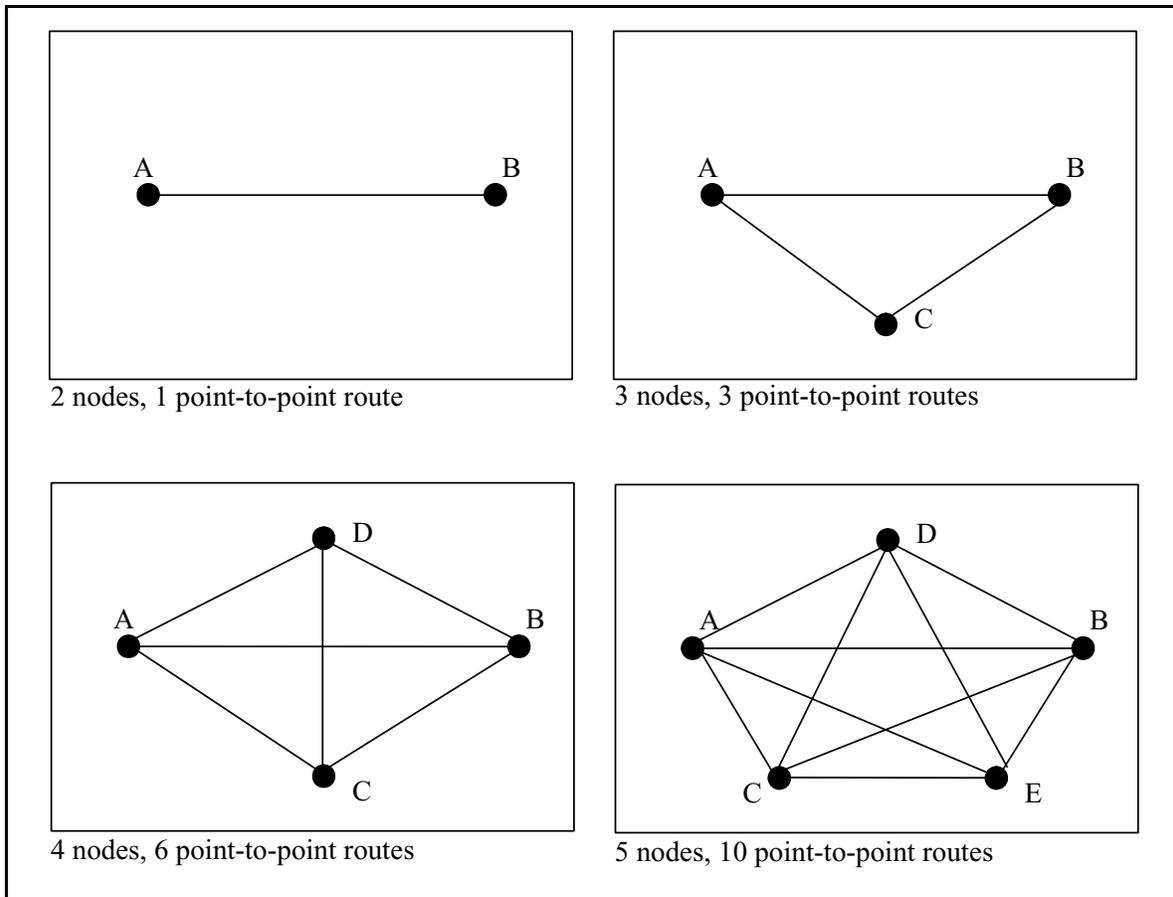


Figure A3. The number of potential point-to-point connections that can be created on a network increases exponentially with the number of individual “nodes” on the network.

building to matter to potential customers in that building, the CLEC must also have a presence in (or be capable of providing connectivity to) the other locations to which that customer requires connectivity.⁷¹

71. The requirement for connectivity is also identified by the GAO Report as a key determinant of the business customer’s demand for dedicated access:

[F]rom a business’ perspective, demand for dedicated access will be determined by that business’ individual location and the other locations where the business needs dedicated access, such as field offices or branches. These other locations could be within the same MSA or could be spread out over several MSAs, several states, or even nationwide. For example, a bank may have 30 or 40 locations in 12 states in one region of the country that require dedicated access. To serve that customer wholly over its own facilities, a competitor would need to extend its network to all of those locations.

GAO Report at 22. The GAO noted that it lacked the data to analyze an individual customer’s total demand, but observed that “because the percentage of buildings in these MSAs with a competitor appears to be relatively small, our analysis suggests that it is unlikely that a single competitor would have very many of its own facilities to serve such a customer.” *Id.* at 23.

The physical presence of a competing carrier in a given building presents a competitive challenge to the incumbent only to the extent that the entrant is able to provide customers in that building with the connectivity they require between that building and other sites. Incumbent carriers with ubiquitous networks can almost always provide the required connectivity precisely because they serve virtually every building within their overall footprint. Where a carrier owns facilities to only a small fraction of the potential locations at which such connectivity might be required, it can compete with the ubiquitous incumbent only to the extent that it can obtain access to those locations where it *does not* have its own facilities deployed. In the view of the ILECs – who already have ubiquitous networks – the *ability* to serve all of these other locations is merely a matter of having the inclination to do so. But this facile explanation is not consistent with the economics confronting new entrants, who have to justify each and every deployment by examining the *specific costs* and the *specific, committed revenues* for each new fiber connection. If the construction of facilities is not cost-justified, the competitor still has the option of serving the customer using ILEC special access facilities – but if it must pay an excessive price for such facilities, the new entrant’s ability to fashion a competitive offering is undermined.

The Government Accountability Office (GAO) has confirmed the minimal extent of competition for the DS-1 and DS-3 special access facilities to 99% of all special access customer locations.

In November 2006, the Government Accountability Office (GAO) issued a detailed report on special access pricing that had been requested by the House Committee on Government Reform. That report – *FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services* – fully corroborates what the AdHoc Committee has repeatedly told the FCC with respect to special access competition, in particular:

- that competitive alternatives to ILEC special access services do not exist at the vast majority of commercial locations where customers need to buy those services; and
- that the presence of one or more competitors offering facilities at specific buildings in no way translates into a competitive marketplace for services at other locations – including locations in close geographic proximity to the places where competitive services are being offered.

The GAO confirms and corroborates the “on the ground” experience of AdHoc member companies – that the minimal level of competition for special access services is simply insufficient to discipline BOC pricing or otherwise to constrain the BOCs’ market power. According to the GAO’s findings based upon its own investigation to supplement the paltry data available from the FCC, purchasers of special access service had no option other than the BOC in at least 94% of the buildings at which they required service at the DS-1 level.

The GAO study expressly criticizes the FCC for failing to gather, maintain, or review data sufficient to permit it to accurately evaluate the extent of competition that actually exists for special access services, finding that the data being used by the Commission was not “current, specific or reliable.”⁷² The GAO concludes that:

the data [used by the FCC to assess the presence of competition for special access] are not current. The data that FCC receives from incumbents when they apply for pricing flexibility represent a one-time assessment of the state of competition for dedicated access services. Once it grants pricing flexibility, FCC does not review the state of competition in dedicated access for those incumbent markets. Because many pricing flexibility applications were granted in 2001 and 2002, FCC has not reviewed the state of competition in 4 to 5 years in markets, such as Atlanta, Los Angeles, Phoenix, and Pittsburgh, where pricing flexibility has been granted. Additionally, FCC has no mechanisms in place in its rules to review competition. ...

72. GAO Report, at 39.

Appendix 3: Excluding FiOS and Lightspeed Outlays

Based upon its analysis, the GAO concludes “that wireline facilities-based competition may not be a realistic goal for some segments of the market for dedicated access.”⁷³

Long-standing entry barriers continue to exist and are not likely to be alleviated. Where demand for dedicated access is less than 3 or 4 DS-1's, it would appear unlikely that any competitor would extend its network for that business.⁷⁴

Data compiled by the GAO clearly confirms its conclusion. First, with respect to individual locations, the overwhelming demand for special access services remains squarely at the DS-1 level. 97% of the roughly 183,000 individual buildings in the sixteen MSAs studied by the GAO require service only at the DS-1 level – i.e., 24 or fewer voice-grade channels. If the “low demand” segment is expanded to include DS-1s and single DS-3, that share increases to 99.2% – *and all but 6% of that demand is being served by incumbent LECs.*

Service level (demand)	Total number of buildings in segment	Number of buildings with a “lit” CLEC competitor	Percent of buildings with a “lit” CLEC competitor
DS-1	177,571	10,322	5.8%
DS-3	3,916	599	15.3%
2 or more DS-3s	1,510	375	24.8%
Source: GAO Report, Table 2.			

Second, with respect to buildings presenting no more than a DS-1 level of demand, the incumbents maintain an absolute monopoly at some 94.2% of those locations. Put differently, in the sixteen MSAs, there are more than 167,000 commercial buildings where customers confront no competitive alternative to the incumbent LEC, even though some or all of the FCC’s pricing flexibility “triggers” have nominally been satisfied in these areas.⁷⁵

GAO notes that this data “may overstate the availability of facilities-based competition to some extent. Some equipment that does not provide service, no longer provides service, or no longer exists may remain in the database, falsely indicating a competitive presence. Several companies and government agencies, such as mobile telephone companies and GSA, are included in the number of competitors, even though they do not provide dedicated access connectivity for businesses. Also, according to GeoResults, cellular phone sites are significantly underrepresented in the

73. GAO Report, at 42.

74. *Id.*

75. This data is corroborated by evidence submitted to the FCC by the pre-merger AT&T. As of January 2003, AT&T was providing service at the DS-1 or higher capacity level to approximately 186,000 commercial buildings across the US. Of these, only about 6,700 buildings were being served using AT&T-owned facilities, and another 3,300 locations were being served using facilities leased from other CLECs. Thus, competitive alternatives to ILEC special access service are available at only about 10,000 locations, or roughly 5.7% of the 186,000 AT&T enterprise customer locations, and at less than 0.4% of the 3- to 4-million commercial buildings nationwide. Reply Declaration of Lee L. Selwyn on behalf of AT&T Corp., *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Federal Communications Commission RM No. 10593, filed January 23, 2003, at para. 18.

number of buildings with demand for dedicated access. However, cellular sites with competitive fiber are included in the number of buildings with a fiber-based competitor. Furthermore, these numbers include bankrupt companies, such as Jato Communications and Ciera Network Systems, whose equipment is still listed in the database. It is unclear whether these assets are being used by another company or have been liquidated. These data also include equipment owned by the former AT&T and MCI prior to the recent mergers. We did not filter out these data because DOJ has required divestiture of some of these assets and the courts have yet to finalize that action. DOJ’s analysis is discussed further later in this report.”⁷⁶

Because these percentages represent an *average* of multiple MSAs, they also tend to overstate the level of competitive fiber in many locations, especially in larger MSAs like Los Angeles. Among the nine MSAs with Phase II pricing flexibility (presumed to be the *more competitive* locations), competitors were in only about 6% of buildings with a demand of DS-1 or greater, 8.5% of buildings that had demand of one DS-3, and 15.4% of building with demand of two DS-3s or greater. However, one of the smaller Phase II MSAs (Norfolk) had an extremely atypical level of competitive deployment (e.g., more than 12 times the average of the other eight MSAs). Removing this outlier from the average, the averages drop significantly.

Table A7			
Percentage of Commercial Buildings with CLEC Fiber at Various Demand Levels			
Phase II MSAs	Percentage DS-1	Percentage DS-3	Percentage 2+DS-3
All (9)	5.9	8.5	15.4
All but Norfolk (8)	3.4	6.8	14.2
Los Angeles	2.2	4.0	12.8
Source: GAO Report at 20.			

Even in areas with the greatest concentration of enterprise customer demand, the vast majority of CLEC customers are being served by means of special access services purchased by the CLEC from the RBOC.

Of course, an MSA is a broad geographic area, consisting not only of the urban center but also of various residential, suburban, and industrial areas. The ILECs are reluctant to admit that any of these areas lack significant competition, but they have argued that there is, without doubt, robust competition in the downtown central business districts of large metropolitan markets. Yet even in these areas with the greatest concentration of demand, competitors serve a large portion of their customers using special access obtained from the ILEC, because it is not economically justified for the CLEC to connect specific buildings to their fiber “rings” by means of location-specific facilities (known as “laterals”). Take, for example, the view of competitive fiber in the San Francisco financial district as shown by a map SBC submitted to the FCC in 2003 (Figure A4 below). An analysis of that map identified more than 436 instances where SBC special access services was being provided to CLEC customers located on streets where competitive fiber is in place.⁷⁷ Conditions in San Francisco are more typical than unique, as the data for several other SBC markets demonstrates (Table A8). Outside the central business districts, competitive fiber deployment is even more sparse. Again using San Francisco as an example, looking at the entire city (as opposed to just the financial district) adds only three additional CLEC locations (a 4% increase), even as the total number of ILEC special access locations increases by 64%.

76. GAO Report, at 21.

77. SBC August 18, 2004 *ex parte*, at Attachment A.



Figure A4. SBC map showing locations of SBC Special Access Services being used by CLECs to provide local service to enterprise customers in the San Francisco metro area.

City	All locations		SBC Spc. Access on streets with CLEC fiber
	SBC Spc. Access	CLEC fiber	
San Francisco (city wide)	1160	71	658
San Francisco (financial dist.)	719	68	436
Oakland	181	18	111
San Jose	95	24	63
Dallas	124	27	109

Although the FCC has established certain limited policy distinctions between relatively low bandwidth services (DS-1/DS-3) vis-a-vis the largest digital fiber optic “pipes” (OC-n level services), the BOCs themselves have generally sought to portray the full range of special access services – from the DS-1 (equivalent of 24 voice-grade channels) on up through OC-192 (equivalent to 155,000 voice-grade channels) – as constituting a single product market. For example, in its 2006 *Petitions for Forbearance* in six MSAs (Boston, Providence, New York, Philadelphia, Pittsburgh and Norfolk), Verizon offers evidence purporting to show the presence of CLEC “lit” buildings, but makes no mention as to the level of service demand that is actually being supported by those CLEC facilities at each location. From the GAO’s findings, it is highly likely that few, if any, of the CLEC “lit” buildings identified by Verizon are serving only DS-1 and single DS-3 demand levels; Verizon is asking the FCC to *infer*, from the extremely limited CLEC penetration at a small number of very high demand locations, that competition is present in all product markets and throughout the entirety of each MSA’s geography. GAO, by contrast, has expressly sought to examine the extent of CLEC presence at each of several different service volume levels. Using data for sixteen (16) MSAs, the GAO compiled these statistics:

In light of these statistics and the claims of broadly based competition being advanced by Verizon and AT&T in their various forbearance and other deregulatory initiatives, the RBOCs’ reaction to the GAO’s findings is particularly noteworthy: Apparently unable to refute the GAO’s analysis of the marketplace conditions for DS-1 services (because the GAO’s analysis was right on point), the incumbents have sought to attribute the GAO’s conclusion as to the overall lack of special access competition to GAO’s *inclusion* of DS-1 services within the overall special access product market.⁷⁸ Had GAO defined the special access product market as being limited to the “DS-3” level of demand and above, the ILECs have suggested, it would have found a far greater level of competition.⁷⁹ True enough, but if DS-1 service is to be excluded from the special access product market *definition*, then DS-1 demand should also be excluded from pricing flexibility, regulatory forbearance, and any other deregulatory initiatives and policies pertaining to special access. By their reaction to the GAO’s findings, the ILECs have thus conceded that there is virtually no competition at the DS-1 level, and the FCC now needs to conform its various policies regarding special access to only those segments of the special access market where competition can be demonstrated to exist.

Examination of actual price levels being charged under the FCC’s pricing flexibility rules compels the conclusion that special access service – particularly at the DS-1 and DS-3 levels – is not subject to effective competition.

Documented repeatedly in a variety of FCC proceedings, the experience of *actual customers* – such as the members of the Ad Hoc Committee and others⁸⁰ – confirms that the ILECs have increased, not decreased their prices for high capacity services in those areas where they have been granted Phase II pricing flexibility. In many cases, almost unbelievably, those prices are now higher than the prices for areas still regulated under price caps.⁸¹

78. GAO Report, at 46-47.

79. *Id.*

80. See footnote 16 *supra*; See also, *AT&T Corp. Petition for Rulemaking To Reform Regulation of Incumbent Local Exchange Carrier Rates For Interstate Special Access Services*, RM Docket No. 10593, *WorldCom Comments*, filed December 2, 2002 p. 1 - citing Qwest Corporation Transmittal 145 (filed October 31, .2002), increasing DS1 rates virtually across the board in pricing flexibility MSA, Density Zone 1; and *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, *Reply Comments of Sprint*, filed July 17, 2002 (“01-338 Reply Comments of Sprint”) at pp. 24-25 (discussed in more detail below).

81. Reiterating the evidence discussed in Chapter 3, Verizon’s price for a ten-mile DS1 special access circuit (using two channel terminations and ten miles of interoffice mileage) in downtown Providence, RI (a city designated for Phase II pricing (continued...))

When it removed the generally available pricing for special access from under price caps and Part 69 rules, the FCC expressed its expectation that market forces would “govern” the rates for these access services.⁸² However, as these examples demonstrate, comparing the prices for the generally available special access services in MSAs where Phase II Pricing Flexibility has been granted with the prices still set in accordance with the Commission’s price cap and Part 69 rules – for the same services, from the same companies, and in the same states and density zones – reveals a consistent pattern of *higher* prices being charged in the Phase II MSAs – areas for which the “triggers” had been satisfied and for which the inference of “actual or potential competition” had been made. Notably, *our review did not identify any instances of lower prices being charged for generally available services in Phase II MSAs.*

The GAO study also confirms AdHoc’s assessment that special access price levels in the putatively competitive areas subject to pricing flexibility are higher than in areas where price regulation remains in effect.

In addition to showing the overwhelming ILEC dominance of special access facilities discussed in above, the GAO Report provides conclusive evidence that prices for special access services in areas subject to Phase II pricing flexibility are higher than they would have been had those prices remained subject to some form of FCC price regulation. The GAO Report confirms and corroborates the “on the ground” experience of AdHoc member companies – that the minimal level of competition for special access services is simply insufficient to discipline BOC pricing or otherwise to constrain the BOCs’ market power. According to the GAO’s findings, prices for special access services in MSAs where full pricing flexibility had been granted were higher than the prevailing prices in those areas in which price cap type regulation was still in effect.⁸³ Even after accounting for volume and term plans and “contract tariffs,” the GAO research confirms that average revenues were higher by a statistically significant amount in MSAs in which full phase II pricing flexibility had been granted than in either Phase I or price-caps MSAs.⁸⁴ GAO thus corroborates AdHoc members’ experience that the extremely limited presence of competition for special access services does not constrain the BOCs’ market power or their ability to dictate the overall price level.

The basis for the FCC’s decision to introduce “pricing flexibility” for special access services was the notion that the incumbent carriers needed the ability to respond rapidly to competitive challenges and that the presence of competition for special access would work to discipline ILEC pricing and thereby obviate the need for ongoing price

81. (...continued)
flexibility) is presently \$914.82 per month – 30% higher than the \$701.80 price that would be in effect if Providence had not been granted Phase I flexibility. Verizon maintains three pricing schedules for the territories comprising the former NYNEX states – i.e., Massachusetts, New York, and the remaining New England states – but the results would be quite similar for any MSA in which pricing flexibility has been made available in those states, although the exact price levels would differ. In downtown Manhattan – perhaps the most competitive telecommunications market in the US – the price for DS-1 special access between two locations served by the same wire center would be \$387.76, more than \$30.00 (i.e., close to 10%) higher than the rates that would be in effect if the Commission had not granted Phase II pricing flexibility to NYNEX for New York City. Even in Manhattan, with its enormous telecom demand and business concentration, the level of competition is not sufficient to constrain Verizon’s prices. Several other examples were provided in Chapter 3 as well.

82. *Id.*, at 14 FCC Rcd 14301, para. 155.

83. GAO Report, at 12.

84. *Id.*, at 64.

Appendix 3: Excluding FiOS and Lightspeed Outlays

regulation.⁸⁵ An ILEC could qualify for pricing flexibility in a given MSA by satisfying certain “triggers” that had been established by the FCC. As discussed earlier, these “triggers” are not direct measures of competitive activity, but could better be described as offering “shadow evidence” of competition by reflecting conditions that were deemed to be consistent with the presence of competitive activity.

If, having nominally satisfied the “trigger,” a particular MSA was in fact experiencing effective and price-constraining competition, then one would expect, all else equal, that prices in such putatively “competitive” MSAs would be lower than those in “non-competitive” areas that were still subject to price regulation. *Competition, if it is present, should be driving prices down.* Testing this hypothesis on the basis of the more than five years’ experience under pricing flexibility offers a far more accurate and far more objective means for assessing the presence of competition than reliance upon the nominal satisfaction of arbitrary triggers.

In our August 2004 white paper, *Competition in Access Markets: Reality of Illusion*, and in several subsequent submissions,⁸⁶ AdHoc provided substantive quantitative analysis demonstrating that where pricing flexibility had been authorized, *special access prices were higher than in areas subject to continued price regulation*. Now the GAO has reached precisely the same conclusion based upon its analysis of sixteen MSAs. The GAO concluded:

First, our comparison of 1,152 list prices for channel terminations and dedicated transport for both monthly and multiyear terms found that price-flex list prices were almost always higher than price-cap list prices. ... However, according to representatives of the incumbent firms, many of the largest customers in pricing flexibility markets are under price-flex contracts. Many of these contracts provide discounts off of the applicable price-cap or price-flex list price. Because of the differences in the underlying list prices, contract prices for dedicated access in phase II areas will still be higher than phase I areas. Some contracts also contain terms and conditions that, competitors argue, may limit a customer’s ability to choose other vendors. Third, average revenue for channel terminations and dedicated transport for DS-1 and DS-3 in 2005 are generally lower than average revenue in 2001 and 2002, although the decline in average revenue for channel terminations is larger in phase I areas compared with phase II areas. Furthermore, as of 2005, average revenue for channel terminations is higher, on average, in phase II areas than in phase I areas or price-cap areas.⁸⁷

ILECs seek to portray special access prices as decreasing universally in all areas. They do this by expressing the price in terms of a fixed unit of bandwidth – “Voice Grade Equivalents” or “VGEs.” This claim is extraordinarily misleading. The unit price per VGE is considerably lower for the high bandwidth OC-n level services than it is, for example, for DS-1s, the service that constitutes the vast majority of all special access demand. While the demand for special access has been growing steadily in recent years, in terms of the number of VGEs, that growth is highest at the high bandwidth end of the market. Thus, all else equal (and of course all else is decidedly *not* equal), if the demand for OC-n services is growing at a faster rate than the demand for DS-1s, then over time a successively larger percentage of VGEs will be supplied in the high bandwidth services, thereby leading to a drop in the *average* price per VGE. Comparisons based

85. *Access Charge Reform*, CC Docket No. 96-262; *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers*, CCB/CPD File No. 98-63; *Petition of U S West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, CC Docket No. 98-157, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, FCC No. 99-206, 14 FCC Rcd 14221 (1999) (“Pricing Flexibility Order”).

86. *Competition in Access Markets: Reality or Illusion*. prepared for the Ad Hoc Users Telecommunications Committee by Economics and Technology, Inc., August 2004.

87. GAO Report, at 27-28.

upon per-VGE price levels thus teach nothing about the price relationships as between pricing flexibility and price regulation areas.⁸⁸

To overcome this problem, the GAO has made direct service-for-service price comparisons. Specifically, prices for DS-1 and DS-3 channel terminals and fixed transport were compared, like-for-like, with price levels that had prevailed prior to the onset of any pricing flexibility for special access services. Both monthly and term contract rates were examined, as were prices in each of several “density zones” within the subject MSAs. These “like-for-like” comparisons revealed a consistent pattern across all density cells and all term commitment levels – *prices in areas subject to pricing flexibility had increased, whereas prices in areas still subject to price caps had fallen.*

Table A9		
Changes in Special Access Prices for Like Services Since the Onset of Pricing Flexibility All Density Zones		
Service	Pricing flexibility areas	Price cap areas
DS-1 Channel Termination, Monthly	↑ \$ 20.56	↓ \$ 3.45
DS-1 Channel Termination, 3-year term	↑ \$ 2.74	↓ \$ 12.54
DS-1 Fixed Transport, Monthly	↑ \$ 4.16	↓ \$ 4.16
DS-1 Fixed Transport, 3-year term	↑ \$ 0.39	↓ \$ 6.79
DS-1 Variable Transport, Monthly	↑ \$ 1.37	↓ \$ 2.00
DS-1 Variable Transport, 3-year term	↑ \$ 0.65	↓ \$ 2.50
DS-3 Channel Termination, Monthly	↑ \$137.37	↓ \$ 118.78
DS-3 Channel Termination, 3-year term	↑ \$ 90.59	↓ \$115.75
DS-3 Fixed Transport, Monthly	↑ \$ 21.95	↓ \$ 52.55
DS-3 Fixed Transport, 3-year term	↑ \$ 3.46	↓ \$ 66.64
DS-3 Variable Transport, Monthly	↑ \$ 3.84	↓ \$ 13.46
DS-3 Variable Transport, 3-year term	↑ \$ 2.18	↓ \$ 14.01
Source: GAO Report, Appendix II, Tables 11, 12, at pp. 67-70.		

CLEC fiber, where it exists, is for the most part to be found mainly in areas of high density, i.e., in the central business districts of an MSA. Special access rates are generally deaveraged into three “density zones,” with Zone 1 representing the highest density areas, and Zone 3 the lowest. If CLEC presence had any competitive significance for the ILECs, one might then expect ILEC prices in Zone 1 to reflect the relatively higher level of competition that exists in those areas, and reflect the downward pressure that such competition provides. From the GAO analysis, however, it is apparent that

88. Such VGA-based comparisons also assume 100% utilization of the facility despite the fact that the economic crossover point is considerably lower. For example, a single DS-1 supports 24 VGEs, whereas a DS-3 supports the equivalent of 28 DS-1s, or 672 VGEs. However, DS-3s are typically priced at between 3 and 4 times the price of a DS-1. Hence, a customer with a demand level of as little as 96 channels will often purchase a DS-3 because it is cheaper than four DS-1s. Treating that customer’s DS-3 as if it were actually being used for the theoretical 672 voice-grade channels grossly understates – by a factor of nearly 7 times – that customer actual per-VGE price.

this is not happening. This can be seen in Table A10 below, which summarizes GAO’s price change comparisons for pricing flexibility and price cap areas, but confines these to only the highest density areas, i.e., Zone 1:

Table A10 Changes in Special Access Prices for Like Services Since the Onset of Pricing Flexibility Density Zone 1		
Service	Pricing flexibility areas	Price cap areas
DS-1 Channel Termination, Monthly	↑ \$17.76	↓ \$1.20
DS-1 Channel Termination, 3-year term	↑ \$ 0.87	↓ \$9.80
DS-1 Fixed Transport, Monthly	↑ \$ 3.60	↓ \$4.11
DS-1 Fixed Transport, 3-year term	↑ \$ 0.07	↓ \$6.11
DS-1 Variable Transport, Monthly	↑ \$ 1.28	↓ \$1.91
DS-1 Variable Transport, 3-year term	↑ \$ 0.51	↓ \$2.39
DS-3 Channel Termination, Monthly	↑ \$ 127.88	↓ \$112.81
DS-3 Channel Termination, 3-year term	↑ \$ 82.17	↓ \$114.37
DS-3 Fixed Transport, Monthly	↑ \$ 21.72	↓ \$52.32
DS-3 Fixed Transport, 3-year term	↑ \$ 3.12	↓ \$66.19
DS-3 Variable Transport, Monthly	↑ \$ 3.51	↓ \$11.83
DS-3 Variable Transport, 3-year term	↑ \$ 2.05	↓ \$12.30
Source: GAO Report, Appendix II, Tables 11, 12, at pp. 67-70.		

Triggers or not, whatever “competition” may be present at the DS-1 and DS-3 end of the special access market within the sixteen MSAs studied by the GAO is having no measurable effect upon ILEC prices. The effect of that competition is purely cosmetic, affording the Bells the ability to promote their deregulatory agenda without actually having to respond in any meaningful way to competitive pressures. As we noted earlier, the FCC’s “triggers” are at best “shadow evidence” of competition, in that establishing a certain number of collocations would be something that a competitor would be expected to do. However, the fact that such collocations exist in no way demonstrates that the competitor is being successful or effective in constraining the incumbent’s prices. Persistently high rates of return – now in the triple-digit range for several of the RBOCs – is far more compelling evidence of the *lack of competition*, and should be afforded substantial greater weight than the arbitrary conditions upon which the FCC has based its current policies.

The Authors

Lee L. Selwyn, President and founder of Economics and Technology, Inc., is an internationally recognized authority on telecommunications economics, regulation, and public policy. Since founding ETI in 1972, Dr. Selwyn has formulated numerous policy recommendations and regulatory devices that have been widely embraced by policymakers at all levels. He has provided expert testimony and analysis on technology, rate design, service cost analysis, market structure, form of regulation, and numerous other telecommunications policy issues before more than forty state commissions, the FCC, the United States Congress and a number of foreign regulatory bodies on behalf of commercial organizations, institutions, and local, state and federal government authorities. Dr. Selwyn regularly speaks on telecom policy at government and industry conferences worldwide, and has published dozens of articles on telecommunications industry issues. [Ph.D. in Management, Alfred P. Sloan School of Management, Massachusetts Institute of Technology; Master of Science in Industrial Management, MIT; B.A. with Honors in Economics, Queens College, City University of New York.]

Susan M. Gately, Senior Vice President of ETI, is a leading expert in telephone industry pricing, services, and network management. Active in telecom policy for twenty-five years, Ms. Gately is among the nation's foremost experts in access charge rate structure, cost development, and policy. She advises large corporate telecom users in the evaluation and procurement of custom network service packages. Ms. Gately serves as primary contact point and coordinator for ETI's major corporate user clients, providing advice in the areas of strategic planning, service procurement negotiation, and pricing and policy trends. She has designed and presented training sessions for corporate users and public utilities commission staff in subject areas ranging from tariff structures and regulatory schemes to in-depth exploration of public policy issues. [B.A., Economics, Smith College.]

Helen E. Golding, Vice President at ETI, has thirty years experience in the utilities field. At ETI, Ms. Golding has managed and participated in a broad range of projects involving the transition from regulation to competition, including incentive regulation, interconnection, universal service and access charge reform, and the public interest review of mergers and BOC long distance entry requirements. Ms. Golding also has an extensive public sector background, having worked at the FCC and as Assistant General Counsel and Acting General Counsel at the Massachusetts Department of Public Utilities. Prior to joining ETI in 1994, Ms. Golding's other private sector employment included a private law practice specializing in telecommunications and public utility regulation, and as Telecommunications Counsel at Honeywell Inc. [J.D., Boston University School of Law; A.B. cum laude, Bryn Mawr College.]

Colin B. Weir, Senior Analyst, assists Senior Consulting Staff with economic research and analysis on all aspects of the telecommunications industry for ETI's clients. His experience includes work on a variety of issues, including: wireless ETF and handset locking practices; NANPA numbering policy; Universal Service policy; pricing and regulation of Unbundled Network Elements; rate-of-return regulation; pricing flexibility for special access services; and telecommunications tariff and contract pricing. Additionally, he is responsible for the maintenance of ETI's comprehensive databases of interstate and international interexchange carrier and local telephone company tariffs. During his undergraduate studies, Mr. Weir published his senior thesis "Sales Forecasting in Supermarkets: A Comparison of Econometric and Non-Econometric Methods." [B.A. *cum laude* in Business Economics, The College of Wooster].

Economics and Technology, Inc. has been primarily and continuously engaged in the telecommunications policy field for nearly thirty-five years. ETI has participated in more than 500 regulatory and policymaking proceedings in more than forty states, at the FCC, the Canadian Radio-television and Telecommunications Commission, and in a number of other countries. The firm has served as consultants on a broad range of policy and ratesetting issues to the FCC, to numerous state utility commissions and state consumer advocacy agencies across the US, as well as to numerous corporate, government, consumer and competitive carrier clients.



ECONOMICS AND
TECHNOLOGY, INC.

ONE WASHINGTON MALL, 15th FLOOR
BOSTON, MASSACHUSETTS 02108
+1-617-227-0900