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OFFICE OF THE SECRETARY

March 18, 1998

Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW - Room 222
Washington, DC 20554

Re: CC Docket No. 96-262 - Access Reform
CC Docket No. 96-45 - Universal Service

Dear Ms. Salas:

Enclosed is a copy of a letter and attachments delivered today from Roy Neel, President and CEO of the United States Telephone Association to Chairman Kennard.

An original and four copies of this notice and copies of the letter are being filed in the Office of the Secretary. Please include a copy of the notice and letter in the public record of both proceedings.

Respectfully submitted,

Mary McDermott

Mary McDermott
Vice President - Legal & Regulatory Affairs

cc: Chairman Kennard (w/o attachments)
Commissioner Furchtgott-Roth
Commissioner Ness
Commissioner Powell
Commissioner Tristani
John Nakahata
Thomas Power
Richard Metzger
Ruth Milkman
James Schlichting
Glenn Reynolds
Jane Jackson
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UNITED STATES
TELEPHONE
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USTA 100 Years 1897-1997

March 18, 1998

The Honorable William E. Kennard
Chairman
Federal Communications Commission
1919 M Street, N.W.
Room 814
Washington, D.C. 20554

Re: Customer Impact of New IXC Charges

Dear Chairman Kennard:

On behalf of all of the members of the United States Telephone Association, I want to thank you for your quick response to my letter of February 11 regarding the customer impact of the new charges being assessed by the major interexchange carriers (IXCs), AT&T, MCI and Sprint. We greatly appreciate your efforts to obtain the facts regarding these new charges as well as to encourage these IXCs to provide accurate information about these new charges to their customers.

We received a copy of the last of the three IXC responses on March 9 and our analysis is continuing. However, I felt it was important to promptly write to you to point out that the IXC letters are not at all responsive to your February 26 request. Attached is an affidavit prepared by William E. Taylor of the National Economic Research Associates who reviewed the data that was supplied by the IXCs. His analysis confirms our initial calculations: that the major IXCs have not passed through the access charge reductions which became effective on January 1, 1998 and are instead profiting from the new charges imposed on customers. In fact, the IXCs appear to be trying to conceal the fact that they have not reduced their per minute charges by only discussing reductions which occurred before January 1, 1998, or by discussing reductions which occurred due to marketing tactics which may result in lower average prices, but which have nothing to do with access charge reductions.

Specifically, Dr. Taylor's analysis of the responses reveals a troubling lack of candor on the part of the IXCs. 1). None of the IXCs provided the specific information you requested regarding the changes in revenue from the new charges, the changes in costs from reductions in per-minute access charges and increases in PICCs, changes in payments to the USF or provided information explaining whether and how they passed reductions in usage-sensitive access charges to consumers. Without that information, your specific questions cannot be answered.

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2). Comparisons of the access cost data that was provided reveal that both AT&T and MCI are over-recovering the costs they incurred on January 1. Sprint did not provide sufficient data to make any comparison, but stated that its costs had risen on January 1 which may imply that it will have to raise rates in 1998. 3). The data that was provided by AT&T does not relate specifically to the January 1 reductions; however, Dr. Taylor states that even for the time period on which it reports AT&T raised basic per-minute rates relative to per-minute access charges.

The IXCs claim to have made significant reductions in per-minute charges and use reductions in Average Revenues Per Minute (ARPM) to substantiate their claims. Dr. Taylor explains that reductions in the ARPM occur whenever customers migrate to new calling plans and increase their toll usage. Marketing tactics have nothing to do with access charge reductions. The best measure of whether customers have benefited is to compare the actual price paid on December 31 and January 2. No customer pays based on the ARPM. It is disingenuous to attribute the introduction of new calling plans as the pass through of access charge reductions. In a truly competitive market, customers should receive the benefit of the competitive introduction of new products as well as the benefit of reductions in costs.

The responses of the big three long distance carriers simply perpetrate the debate about whether ARPM is a proper means to judge the general question of whether access charge reductions have been "passed through" to consumers. What is ignored, however, is the fact that a very significant access restructure occurred on January 1, 1998. In addition, the FCC, in conjunction with the Joint Board, instituted a new set of universal service funding obligations. The general statements of the IXCs are not helpful in assessing how each carrier treated these significant events. On one of these items, the Universal Service Fund, none of the IXCs seriously dispute the fact that they are recovering or have plans to recover their own contributions to the Universal Service Funds via a surcharge on customer bills. (Let me emphasize that USTA does not quarrel with the IXCs' decision to proceed in this manner.)

As to the access charge restructure, it is clear from the IXC bills USTA has seen, and undoubtedly those that have been submitted to the FCC, that the three IXCs have imposed new flat rate charges on some significant portion of their customers to reflect the PICC charges. This restructure, just like the access charge restructure, was a discrete, identifiable event. General discussions of ARPM and calling plans simply fail to address the issue.

The campaign of obfuscation apparently being conducted by the IXCs disserves the public. Customers should have the facts about the new charges and should have the facts about whether they are receiving any benefits from the reductions in access charges implemented by the incumbent LECs. Dr. Taylor provides a list of data which the IXCs could provide which would provide the answers you requested. USTA strongly urges you to continue your efforts to get the facts.

Finally, let me correct a mis-impression that has arisen in some quarters. USTA is not calling for the "re-regulation" of the long distance industry. However, if the FCC wishes to ensure that access charge reductions and restructures broadly benefit the American public, it must work to remove the remaining roadblocks to competition in the long distance industry. I urge you to make this effort a priority and promptly approve Bell Company applications to enter the long distance market.

Cordially,

Roy M. Neel
President and CEO

Attachments

DATA THE FCC NEEDS:

To determine the effect of the January 1998 access charge changes, the Commission should recognize that whatever rate changes the IXCs might have made before January 1, 1998 are irrelevant to the question of whether they have passed through per-minute access charge reductions filed on that date. The Commission should also recognize that changes in ARPM that do not account for the change in the mix of services consumed are inadequate measures of the IXC's toll rate changes for the purpose of ensuring that access charge reductions are passed through in the long distance market, as they would be passed through in an effectively competitive market. AT&T, MCI and Sprint should submit to the FCC the following data:

- Report revenues and quantities of all switched services during, say, 4Q97. Include all calling plan subscription fees, recurring and nonrecurring charges for the dedicated portion of one-ended switched services such as WATS, 800 service, and Megacom. Also report the calculation of ARPM, where the total revenues from all those components are divided by total conversation minutes, including any minutes provided for free as part of calling plans or block-of-time services. (Exclude internal IXC "official" revenues and minutes. Also exclude all employee "concession" revenues and minutes. For comparability, exclude access charges attributable to official and concession service as well.) Segment the revenue and demand quantities between business and residential customer segments. Document the data sources, and include copies of the (proprietary) internal company reports from which the data are drawn.

- By customer segment, calculate what revenues those same quantities would generate at the rates in effect after January 1, 1998. Itemize the portion of those revenues obtained from PICC charges and from USF charges. (If the IXC plans significant revisions in its PICC/USF recovery process before June 1998, then document those plans-on a proprietary basis-and their estimated revenue impact.) Report the calculation using two methods, using two alternative assumptions: (a) customers subscribe to the same calling plans and services they had in 4Q97, so a pure "rate change" effect can be visible; and (b) assume some well-documented migration pattern among services and calling plans (but holding each customer's demand constant), explicitly based on historical, documented migration patterns. (The historical data must not be more than two years old.) Include tariff or other price schedule pages and documentation of the calculation method. Show the calculation procedure in a PC-readable format such as Lotus 1-2-3, Microsoft Excel, etc.

- If, under method (b) above, an IXC assumes an increase in the proportion of residential customers who subscribe to calling plans, then reconcile that assumption with the Yankee Group data showing a decrease in the percentage of residential customers subscribing to calling plans from 1996 to 1997.

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	**CC Docket No. 96-262**
Customer Impact of New IXC Charges	)	**CC Docket No. 96-45**
	)	

AFFIDAVIT OF WILLIAM E. TAYLOR

I. INTRODUCTION

I, William E. Taylor, being duly sworn, depose and say:

1. I am Senior Vice President of National Economic Research Associates, Inc. (NERA), head of its telecommunications economics practice, and head of its Cambridge office. I received a B.A. degree in economics, *magna cum laude*, from Harvard College in 1968, a master's degree in statistics from the University of California at Berkeley in 1970, and a Ph.D. in Economics from Berkeley in 1974, specializing in industrial organization and econometrics. I have taught and published research in the areas of microeconomics, theoretical and applied econometrics, and telecommunications policy at academic institutions (including the economics departments of Cornell University, the Catholic University of Louvain in Belgium, and the Massachusetts Institute of Technology) and at research organizations in the telecommunications industry (including Bell Laboratories and Bell Communications Research, Inc.). My research has appeared in numerous telecommunications industry publications as well as *Econometrica*, the

American Economic Review, the *International Economic Review*, the *Journal of Econometrics*, *Econometric Reviews*, the *Antitrust Law Journal*, *The Review of Industrial Organization*, and *The Encyclopedia of Statistical Sciences*. I have served as a referee for these journals (and others) and the National Science Foundation, as an Associate Editor of the *Journal of Econometrics*, and as a commentator on the PBS Nightly News Hour. I have participated in telecommunications regulatory proceedings before state public service commissions, the Federal Communications Commission, the Department of Justice and the Canadian Radio-Television and Telecommunications Commission concerning competition, price cap regulation, productivity, access charge reform, telecommunications mergers, cost allocation methods for joint supply of video, voice and data services on broadband networks, local telephone company entry into interLATA markets, and pricing for economic efficiency.

2. The United States Telephone Association (USTA) has asked me to analyze responses by AT&T, MCI and Sprint to Chairman Kennard's February 26, 1998 letters.[1] Chairman Kennard asked the three interexchange carriers (IXCs) for three things: (i) changes in revenue from new end user charges, (ii) changes in costs from reductions in per-minute access charges and increases in flat-rate primary interexchange carrier charges (PICC)s, and (iii) changes in payments to the universal service fund (USF). In addition, Chairman Kennard asked for:[2]

> detailed information explaining whether and how your company has passed reductions in usage-sensitive access charges along to consumers.

That request presumably requires a comparison of actual IXC prices with what those prices would have been, absent the change in access charges.

3. Whatever else the IXCs' responses were designed to accomplish, they do not address either of the Chairman's requests. No IXC presented an auditable measure of recent changes in IXC prices to recover the PICC or USF access charge changes implemented on January 1, 1998,

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[1] e.g., letter, William E. Kennard (Chairman, Federal Communications Commission) to Bert Roberts (CEO, MCI Communications Corporation) (February 26, 1998), p. 2.

[2] *Ibid.*

along with their associated measures of demand.[3] No IXC presented estimates of the per-minute access charge changes implemented on January 1, 1998 or the associated volume of demand to which those changes would be applied.[4] No IXC presented a measure of the change in flat-rate PICC charges it faced on January 1, 1998 or a measure of the volume of demand to which those charges would be applied.[5] No IXC supplied an auditable estimate of the change in USF costs it incurred on January 1, 1998.[6]

4. In response to the Chairman's request concerning the pass-through of access charge reductions, every IXC waxed enthusiastic about its reductions in average revenue per minute (ARPM) relative to its reductions in access charges. AT&T asserts that its ARPM dropped by $2.5 billion during the period January 1, 1997 to June 30, 1998. MCI speaks of "half a billion dollars of additional savings since July 1, 1997," and claims "$1.80 savings per $1 of access" for the industry in the second half of 1997 and $467 million of "extra customer savings" for MCI for the second half of 1997 and the first half of 1998 combined. Sprint compares industry ARPM and access costs between 1992 and 1996 and graphs Sprint ARPM and access costs between 1996 and 1997. I address below the economic question of whether access charge flow-throughs should be measured by reductions in ARPM or reductions in price. That issue

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[3] AT&T gives two examples of end user charges for business customers for USF and PICCs along with an estimate of total PICC and USF recovery through June 1998. Similarly, MCI supplies the total amount recovered for the first half of 1998 along with an incomplete description of prices; it provides no data on demand volumes. Sprint is silent on the subject.

[4] AT&T compares access charges "representative" of the January 1, 1996 to June 30, 1997 period, with access charges "revised to reflect revisions" effective July 1, 1997 and January 1, 1998. Neither set of access charges nor the volume(s) to which they were applied is revealed in AT&T's letter. From the analysis presented, nothing whatsoever can be learned about the January 1, 1998 reduction in per-minute access charges. MCI gives total access charge changes for three periods, from which the January 1, 1998 change might be inferred. It shows neither the per-minute access charge changes nor the demand volumes used. Sprint presents a per-minute reduction in access charges "between the first quarter of 1997 and the first quarter of 1998" without explanation and without demand volumes. It is thus silent on the topic of the effect of January 1, 1998 access charge changes.

[5] AT&T and MCI present half-year changes in PICC expenditures but no separate price changes or quantities. Sprint provides no information on the topic.

[6] AT&T and MCI give half-year totals but not the revenue shares nor the revenues to which those shares were applied in calculating the total. Sprint attempts to correct the USTA estimate but provides no information of its own.

notwithstanding, it is certainly the case that no IXC attempted to show what its prices (or ARPM) would have been absent the January 1998 reduction in access charges. Rather, the IXCs ignore all other sources of reductions in price (or ARPM) and attribute all such reductions to the pass-through of access charge reductions. Moreover, the timing of the ARPM and access charge changes is not responsive to the Chairman's request. AT&T and MCI measure ARPM and access charge changes across two access charge reductions (July 1997 and January 1998), so their numbers cannot be used to gauge pass-through from the January 1998 access charge changes. Sprint presents no data after January 1998 and finds itself in the odd position of having to claim to have reduced ARPM "[i]n anticipation of access reform."[7] Sprint's clairvoyance is particularly troublesome since it reveals on the previous page that

> ...the premise of cost reductions is wrong. There were no access and universal services cost reductions on January 1, 1998. On the contrary, Sprint estimates that its interstate access costs and USF costs, taken together, rose by some $28 million on January 1, 1998, as compared with July 1, 1997 levels.[8]

Sprint's newly-minted principle of "forward pricing" is thus off to a bad start, as it predicts long distance price increases rather than decreases after January 1998.

5. Economic analysis of the IXC submissions is obviously premature. To measure changes in revenues and costs stemming from a change in access charges, an economist needs to know (i) how prices (of access and of each long distance service) have changed, (ii) what volumes of usage pertain to those price changes, and (iii) how prices would have changed absent the change in access charges. That information is not currently available, and no responsible answer to Chairman Kennard's question can proceed without it.

6. The remainder of this affidavit addresses Chairman Kennard's two questions in more detail. First, I compare—where possible—the USTA measures of access charge changes and end user

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[7] Letter from J. Richard Devlin (Sprint) to the Honorable William E. Kennard, March 4, 1998 (Sprint letter), p. 2, emphasis added.

[8] Sprint letter, p. 1.

charge changes with those presented by the IXCs, and I outline the additional data required to respond to the Chairman's questions. Second, I address the underlying economic question regarding whether an IXC can satisfy its obligation to pass through a reduction in access charges with a showing that—over some period—ARPM has declined by as much as or more than the reduction in access charges.

II. CHANGES IN CARRIER ACCESS COSTS AND IXC PRICES

7. There were three significant changes in carrier access charge structure and level that took place in January 1998:

- For the price-cap local exchange carriers (LECs), access reform shifted a larger portion of non-traffic sensitive access costs to flat-rate recovery through increases in subscriber line charges for some types of customers and through implementation of PICC per presubscribed line.
- The charge for the universal service fund—assessed as a flat fee based on revenue—increased to support schools and libraries and to provide additional support to high-cost areas and lifeline customers.
- A reduction in the Transport Interconnection Charge (TIC) by approximately one-third of the total 1997 level took place.

As each of these price changes are applied to different bases (switched access minutes, toll revenues and presubscribed lines), and we would expect in an effectively competitive market that the principle of cost-causation would lead to three different changes in the IXCs' long distance price structure. IXCs would (i) have to reduce per-minute long distance prices to reflect their reduced per-minute costs, (ii) assess their customers the increased USF charge on a basis related to revenue, and (iii) implement flat-rate charges for presubscribed lines. Chairman Kennard's letter requests a detailed analysis of the relationship between these access charge changes and the ensuing long distance end-user price changes.

A. Access cost changes

8. According to the calculations supplied to the Commission by USTA, the annual per-minute access charge reduction amounted to $3.49 billion, offset by an increased USF charge of $1.22 billion, a PICC charge of $1.85 billion, and a special access trunking increase of $0.08 billion.[9] The annual per-minute access reduction is based on the updated access tariff roll-up supplied on February 18, adjusted as described in USTA's March 11 filing. The pertinent revenue basis for the USF calculation was supplied in USTA's February 20 filing, along with the presubscribed line information for calculating the PICCs.[10]

9. Using this information, some comparisons are possible, despite the lack of price and quantity data underlying the IXCs' submissions. First, MCI's view of the industry measure of the PICC expense agrees closely with USTA's: $1,856 and $1,851 million respectively, but its estimate of the industry USF (including the old USF IXC annual amount of $993) differs substantially: $3,144 and $2,212 million, respectively. The comparative view of per-minute access charge reductions is reasonably close: -$4,118 and -$4,483 million, respectively, assuming the MCI per-minute access charge decrease includes the removal of the old HCF. Combining the new PICC and USF costs with the change in per-minute access charges, MCI estimates a net increase in industry access charges of $912 million per year while USTA estimates a net reduction of $340 million. AT&T provides no view of access charge changes for the industry, and Sprint adjusts an early USTA figure to arrive at a net increase of $316 million.

10. Second, MCI's view of access charge reductions is at different than the FCC's view of changes in per-minute access charges. MCI claims that the access charge reduction for 2H97 was $800 million, and the reduction for 1H98 was $2,859 million.[11] Net of the continuing

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[9] *Ex parte* Notice in CC Docket Nos. 96-262 and 96-45: Attachment to letter from Mary McDermott (USTA) to Magalie Roman Salas (FCC), March 11, 1998.

[10] *Ibid.*, p. 5.

[11] Letter from John B. Sallet to Chairman William E. Kennard, March 2, 1998 (MCI letter): attachment, *Access Reform, The Impact on MCI*, March 2, 1998 (MCI attachment), p. 9.

effect of the decrease on July 7, 1997, the incremental decrease for 1H98 due to the January 1, 1998 access charge decrease was—according to MCI—$2,059 million. However, according to the FCC's access charge calculations, from July 1, 1996 to July 1, 1997, the LECs reduced per-minute access charges from $0.0604 per conversation minute to $0.0526 per conversation minute—a reduction of $0.0078 per minute.[12] Then on January 1, 1998, the LECs reduced access charges to $0.0451—a reduction of $0.0075 per minute.[13] So, according to MCI, a reduction of $0.0078 per minute on July 1, 1997, produced total savings of $800 million, yet a reduction of $0.0075 per minute on January 1, 1998 produced total savings of $2,059 million. Since demand had not tripled in six months, MCI's data are totally inconsistent with the FCC data.

B. Long distance price changes

1. New AT&T PICC and USF charges, combined with lower per-minute access charges, exceed AT&T's increased PICC and USF costs.

11. The AT&T price changes described in its letter appear to under-recover the annual increase in PICC and USF costs that AT&T says it will experience. Based on its letter, AT&T expects to recover $835 million per year—$439 and $396 million respectively—from new PICC and USF charges. Its estimate of the change in its annual PICC and USF costs is $2,414 million: $1,086 and $1,328 million from new PICC and USF costs,[14] respectively. On a comparable basis, USTA's industry cost change implies annual AT&T cost changes of $2,102 million ($1,171 and $931 million for PICC and USF respectively).

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[12] Federal Communications Commission, *Trends in Telephone Service* (February 1998), Table 1.2.

[13] In *Trends in Telephone Service*, *Ibid.*, Table 1.2 shows a figure for January 1, 1998 of $0.0492. According to John Scott of the FCC staff, the latter figure includes the PICC, represented as on a per-minute equivalent basis. After subtracting off the PICC component from Mr. Scott—$0.0041 per minute—the per-minute access charges on January 1, 1998 average $0.0451.

[14] The AT&T USF estimate does not net out AT&T's anticipated annual reduction of $629 million from the elimination of the old high cost fund. Following AT&T, we will account for that as an access charge reduction.

12. On the other hand, AT&T's anticipated annual under-recovery of PICC and USF cost changes appears to be more than offset by the reduction in its per-minute access charges. AT&T's calculated access charge reductions combine July 1997 and January 1998 access charge reductions and cannot be compared to the above PICC and USF under-recovery. USTA's calculated industry access charge reduction implies an AT&T annual access charge reduction in January 1998 of $1,773 million plus removal of the old High Cost Fund of $418 million.[15] Including the special access trunking rate increase of $34 million, USTA's industry numbers imply that the PICC and USF recovery claimed in AT&T's letter will over-recover its change in PICC, USF, special access trunking, and per-minute access charges by about $578 million per year. Table 1 below summarizes the effect on AT&T's profits from the various changes on January 1, 1998. As discussed further below, since I have found no evidence that AT&T changed per-minute toll rates on or after that date, I have entered $0 for the change in toll rates. As a result, if AT&T is truly to break "even" and not benefit from access reform, holding other factors constant, I would expect to see AT&T's toll revenues decrease by $578 million.

Table 1: 1/1/98 Impact on AT&T (millions)

	PICC	USF	1/98 Access	1/1/98 Change in Toll Price	Trunking	Old HCF	Total
Revenue	+$439	+$396	-	$0	-	-	+$835
Cost	+$1,086	+$1,328	-$1,773	-	+$34	-$418	+$257
Net Effect	-$647	-$932	+$1,773	$0	-$34	+$418	+$578

[15] There is a considerable discrepancy between AT&T's estimate of its annual share of the current HCF ($629 million) and the estimate constructed from USTA total industry data. If AT&T is correct, its access savings—and over-recovery—would be about $200 million greater than the calculation based on USTA industry estimates.

Any future additional recovery of PICC and USF charges—such as those threatened at the bottom of page 4 of AT&T's letter—would simply add to this over-recovery.

2. MCI's estimates imply under-recovery, but USTA's industry estimates imply over-recovery.

13. For MCI, a conservative estimate of the new PICC and USF charges outlined on page 19 of MCI's attachment results in additional annual revenues of $527 million. Like AT&T, according to MCI, its new PICC and USF charges do not fully recover its expected increase in PICC and USF expenses. According to MCI's undocumented estimate, its own increased annual expense from PICC and USF charges amounts to $960 million ($360 and $600 million, respectively). USTA's industry figures imply lower annual increases of $670 million: $268, $388, and $14 million per year, for new PICC, USF, and special access trunking charges, respectively. As discussed above, there appears to be a discrepancy between MCI's view of its obligations under the new USF and that of USTA.

14. Nonetheless, using the same methodology as above, when combined with its estimated reductions in per-minute access charges of $852 million, it is clear that MCI's new PICC and USF prices will over-recover its change in access cost (PICC, USF, special access trunking charge, and per-minute access charges) in January 1998 by about $579.[16] Table 2 below summarizes the effect on MCI's profits from the various changes on January 1, 1998. Since we have found no evidence that MCI changed per-minute toll rates on or after that date, I have entered $0 for the change in toll rates.

[16] The estimates for MCI's share of the old cost fund and increased trunking cost are calculated by taking the total size of the respective figures using the same methodology as above, and applying MCI's share of long distance revenues.

Table 2: 1/1/98 Impact on MCI (millions)

	PICC & USF	1/98 Access	1/1/98 Change in Toll Price	Trunking	Old HCF	Total
Revenue	+$527	-	$0	-	-	+$527
Cost	+$960	-$852	-	+$14	-$174	-$52
Net Effect	-$433	+$852	$0	-$14	+$174	+$579

C. Other issues

1. AT&T's choice of analysis time periods avoids the issue and undercounts the January 1, 1998 per-minute access charge reduction.

15. The concern of the USTA was that the IXCs did not pass through the January 1, 1998 reductions in per-minute access charges. Thus, Chairman Kennard asked for information specifically about that question. Yet AT&T presents data that do not relate specifically to the January 1, 1998 reductions. Instead, it reports the difference between its access bill for the period July 1, 1996 to June 30, 1997, and what its access bill would be (with those prior access quantities) for the period July 1, 1997 to June 30, 1998; and it compares that access bill change with its change in ARPM from on or near July 1, 1997 to on or near June 30, 1998. What AT&T has attempted to do is hide the fact that it did not reduce per-minute rates in 1998 by broadening the discussion to include a much wider time period, in which its ARPM did fall.

16. During those periods for which AT&T calculates the change in access charges, the level of per-minute access charges were as follows:[17]

July 1, 1996	$0.0604 per conversation minute
July 1, 1997	$0.0526 per conversation minute
January 1, 1998	$0.0451 per conversation minute.

Instead of annualizing the January 1, 1998 access charge reduction—which is the only one at issue—AT&T's chosen end-period only counts six months of that reduction. Thus, it understates its effect by half. (Granted, it also counts the July 1, 1997 access charge reduction.)

2. Even given AT&T's broadened timed period, it raised rates relative to access charges for consumers.

17. We have insufficient data at this time to state how AT&T changed rates for its business customers or for business and residence customers combined. We have unambiguously determined that, even for the time period on which it reports, AT&T raised basic per-minute rates relative to per-minute access charges for consumers:[18]

	Average Basic Rate (Per Conversation Minute)	Percent Change	Access Charges (Per Conversation Minute)	Percent Change	Basic Rate Net of Access Charges (Per Conversation Minute)	Percent Change
12/1/96	$0.1976	5.9%	$0.0604	-1.9%	$0.1372	9.8%
7/2/97	$0.1861	-5.8%	$0.0526	-12.9%	$0.1335	-2.6%
11/8/97	$0.1911	2.7%	$0.0526	0.0%	$0.1385	3.7%
1/1/98	$0.1911	0.0%	$0.0451	-14.3%	$0.1460	5.4%

[17] Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, *Trends in Telephone Service* (February 1998), Table 1.2.

[18] Based on AT&T's tariffs on each date and on 1996 calling data for AT&T customers in the U.S. from PNR and Associates' database "Bill Harvesting III," Release 2 (May 1997).

One can see that AT&T's average basic rate net of per-minute access charges increased from $0.1372 to $0.1460 per minute from December 1, 1996 to January 1, 1998. Since the percentage of AT&T households that subscribe to a calling plan decreased from 1996 to 1997, it is unlikely that the average discount received by customers would have increased. Therefore, AT&T's average per-minute rate actually paid by consumers—even accounting for discounts—must also have increased from December 1996 to January 1998.

3. AT&T's explanation of its ARPM calculation technique is vague, and its calculation possibly distorts the result.

18. Although AT&T was fairly explicit about how it calculated the change in access charges, it was much more vague about how it calculated its rate change. It is not clear what it means when it says:

> AT&T has estimated that, for the period July 1, 1997 to June 30, 1998, AT&T's ARPMin for interstate services has dropped by nearly $2.5 billion. (AT&T, p. 2)

For instance, it could mean that AT&T calculated its ARPM on July 1, 1997, just before its July 2, 1997 rate reductions, and it compared that figure with what it expects its ARPM to be on June 30, 1998. Then, to get, a total dollar figure, it might have multiplied the difference in ARPM times the number of minutes on July 1, 1997 (or June 30, 1998). One of the alternative interpretations is that—in a somewhat parallel manner that it dealt with access charges—it calculated the ARPM for the year prior to July 1, 1997, and it compared that result to the ARPM for the year after July 1, 1997. The results of the two calculations could be quite different.

4. AT&T has excess charges.

19. AT&T claims that the LECs are collecting access charges that exceed their "true economic costs by almost $10 billion."[19] Later it revises its estimate down from the $10 billion to

[19] AT&T letter, p. 1.

somewhere between $8 to $9 billion.[20] Yet AT&T itself is collecting revenues that far exceed its true economic costs. At least one reseller charges less than $0.10 per DDD minute (with no subscription charge) for residential and small business customers.[21] It follows that $0.10 must be an upper limit on retail costs in the IXC market. AT&T charges an average of $0.156 per minute for domestic interstate interLATA DDD calls (accounting for discounts).[22] AT&T's markup is thus $0.056 per minute. Assume that the markup is the same for non-DDD minutes. AT&T had about 70 percent of residential customers in 1996.[23] The total number of residential access lines in the U.S. was 104 million as of December 31, 1996.[24] Assume that the average telephone household has 1.1 lines. Then the number of AT&T customers is about 68 million.[25] The average usage per residential customer is roughly 100 minutes per month.[26] So AT&T's excess profits from residential customers is about 4.6 billion per year.[27] Presumably, it also makes additional excess profits from small business customers and perhaps even, to a lesser extent, medium and large business customers.

20. An alternative approach is to assume that AT&T's claim is, essentially, that virtually all of the $0.0451 per conversation minute of switched access charges is profit. AT&T's profit from residential customers—as calculated above—is about $0.056 per minute. Thus, AT&T's excess profits per minute exceed what it claims the LECs are receiving in profit per minute

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[20] AT&T letter, p. 6.

[21] Affidavit of Robert Hall on behalf of MCI in *Application of SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc., for Provision of In-Region, InterLATA Services in Oklahoma*, CC Docket 97-121, ¶ 36.

[22] We used a representative set of domestic interstate interLATA DDD calls from PNR and Associates' database "Bill Harvesting III," Release 2 (May 1997). We priced out this set of calls using AT&T's current basic interstate interLATA DDD rates. We then reduced that average price by the average discount that AT&T customers receive, which we also calculated from the Bill Harvesting database.

[23] FCC, *Long Distance Market Shares—Third Quarter 1997* (January 1998), Table 4.1.

[24] FCC, *Preliminary Statistics of Communications Common Carriers* (June 30, 1997), Table 2.5.

[25] 0.70*104 million lines/1.1 lines per customer = 68 million customers.

[26] Analysis of "Bill Harvesting III," *Op. Cit.*

[27] 68 million customers*100 minutes per customer per month*$0.056 markup per minute*12 months per year = $4.6 billion per year.

from switched access service. Indeed, in industries characterized by a high proportion of fixed or common costs—as in local exchange—it is not at all surprising to find prices in excess of forward-looking incremental cost.

III. REDUCTIONS IN ARPM DO NOT DEMONSTRATE THE FLOW-THROUGH OF REDUCTIONS IN MARGINAL COST IN COMPETITIVE MARKETS.

A. Principles

21. All three IXCs claim to have made significant reductions in per-minute charges to offset implementation of PICCs. AT&T, MCI and Sprint each point to a number of actions that they have taken including 5-Cent Sunday plans,[28] new product offerings,[29] and customer migration to lower rate products like AT&T's One Rate plan.[30] According to MCI, much of its putative reduction in ARPM in 1997 was due to its 5-cent-a-minute Sunday plan,[31] and Sprint credits its promotions and products listed in Attachment 3 as the mechanism by which it practices "forward pricing."[32] For a number of reasons described below, it is highly misleading to point to reductions in customers' bills resulting from innovative marketing plans—which respond to market forces and would likely have taken place independent of access reductions—as being the result of a Commission-ordered pass-through of access charges. When alleged price reductions are viewed in the context of what would have happened in the absence of access reductions, it becomes clear that the Commission cannot simply take all measured reductions in ARPM over some interval—before or after an access charge reduction—as a measure of the pass-through of changes in marginal costs that customers would expect to see in an effectively competitive market.

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[28] MCI letter, p. 2.

[29] Sprint letter, Attachment 3.

[30] AT&T letter, p. 2.

[31] MCI letter, p. 2.

[32] Sprint letter, p. 2.

B. Changes in ARPM do not represent changes in price.

22. First, a fundamental error that the IXCs make in their responses is their inability to distinguish changes in price from changes in revenue brought about by other effects. Consider MCI's 5-cent Sundays, for example. In its Emergency Petition, it proudly states:

> Many customers have reduced their long distance costs even more dramatically, by shifting from basic rates to the heavily promoted MCI One or moving more of their calling to Sunday... The bottom line is that users of MCI services are buying cheaper minutes of long distance than they were a year ago.[33]

Movement of customers from basic rates to a discount plan or from weekday calling to Sunday calling does *not* constitute a reduction in price. It is possible that MCI could have *raised* the price of every service, (basic and discount, weekday and Sunday) while MCI average revenue per minute (ARPM) could still have fallen if enough customers switch to the lower priced services. In fact, as AT&T and MCI basic service prices have increased, the price of most discounted services have increased as well, since most discounted services are priced at a fixed percentage discount off the basic price.

23. Examples of reductions in ARPM that correspond to no reduction in any price abound. The movement towards giving free minutes with discount programs rather than a $100 check reduces ARPM, as does AT&T's practice of giving long distance credits to its new subscribers to its cellular service. The increase in holding times reduces ARPM as a smaller fraction of minutes that are charged at the higher, initial-minute rate. AT&T claims:

> The best measure of price is the amount customers actually pay for long distance in a given period. The industry standard for measuring price is ARPMin...[34]

AT&T is half right. The best measure of price is the price customers actually pay—but no customer buys service at an IXC's ARPM. Like any price index, ARPM averages together low

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[33] *In the Matter of Tariffs Implementing Access Charge Reform*, CC Docket No. 97-250, *MCI Emergency Petition for Prescription*, February 24, 1998, p. 12-13.

[34] AT&T letter, p. 2.

prices paid by high-volume business users, wholesale prices paid by resellers, and relatively high prices paid by low-volume residential customers. However, unlike any valid price index, ARPM rises and falls as the mix of services purchased changes. To an economist, ARPM is not an acceptable price index and is not used (for example, by the Bureau of Labor Statistics) to measure changes in the prices that consumers pay. For example, one would never think of measuring the change in automobile prices by the change in average revenue per car because the resulting ARPC would change whenever the mix of large and small, or luxury and basic cars changed, and customers are not indifferent to that mix. Suppose no automobile prices change, but a low-priced Yugo is introduced which I buy instead of my usual Cadillac. ARPC will fall but the welfare and competitive effects of that reduction are very different from the effects of an overall reduction in price that results in the same reduction in ARPC. In long distance, the introduction of 5-cent Sundays (possibly) reduced the price of a Sunday call, but the reduction in MCI's ARPM caused by a shift in demand towards Sunday calling is not a price reduction, as will become clear when your parents' anniversary falls on a Tuesday.

24. The important economic dispute is whether the pass-through of access charge reductions should be measured by reductions in ARPM or reductions in price. The IXCs clearly believe that if—at any time in history—enough customers shift their calling to low-priced services, their obligation to pass through access charge reductions will be fulfilled without the need for them to reduce any price. To settle this dispute, it is instructive to examine what would happen in an effectively competitive market. Consider a multiproduct firm earning a normal economic profit from services in two competitive markets. Profit maximization implies that the firm will price its services so that its margin (incremental revenue less incremental cost) is the same for both services; otherwise profits could be increased by supplying less of one service and more of the other. If the price of Sunday calling (for example) is less than weekday calling in equilibrium, it is because the incremental cost of Sunday (off-peak) calling is less than that of weekday calling. Suppose, then, that the LEC reduces access charges by 1 cent, which reduces the IXC's

marginal cost by 1 cent and average costs by more than 1 cent.[35] Suppose also that the IXC responds by changing no prices but, over time, enough of its customers migrate from weekday calling to Sunday calling so that its ARPM falls by 1 cent. Would that reduction in ARPM be all the pass-through that would occur in a competitive market?

25. No. In equilibrium, migration of customers from high-priced services to low-priced services has no effect on the amount of pass-through to output prices that would occur in a competitive market. Suppose both high-priced and low-priced markets are competitive and the IXC earns normal profits in each. As customers shift over time to Sunday calling, the IXC's costs fall because it costs less to call off-peak on Sunday: the lower cost of Sunday calling explains why equilibrium prices for Sunday calling were lower than weekday prices. If the market is competitive, the IXC's price must fall as its costs fall or else the shift in demand would lead to supra-normal profits, additional entry and a lower market price. If, in addition, access charges fell by a penny, the market price would fall by that penny plus the amount by which the shift in demand caused incremental costs to fall plus the amount by which the stimulation of demand caused average costs to fall. Reductions in ARPM stemming from shifts in demand would have no effect on the market price reductions that competitive forces would bring about.

26. Second, it is disingenuous to imply that the creation of new product offerings by MCI in 1997 was due to access reform and would not have taken place absent such reform. There are many factors, apart from a reduction in access charges, that would compel an IXC to introduce new product offerings such as 5 Cent Sundays. As MCI states, 5 Cent Sundays is an effort for

[35] In an effectively competitive market with no barriers to entry, a reduction in access charges translates into a reduction in marginal costs, which would be passed through—penny for penny—in lower per-minute long distance prices. The resulting lower long distance prices would lead to additional long distance demand, and, because long distance carriers bear significant fixed costs, this demand stimulation would reduce the IXCs' average unit costs by more than the per-minute reduction in access charges. If the incumbent long distance carriers did not reduce prices to the new, lower average costs, then additional entry would occur to drive prices down to average unit costs. Thus, in an effectively competitive industry with important fixed costs, low entry barriers and relatively elastic demand, a one-cent-per-minute reduction in carrier access charges would result in a reduction in long distance prices of more than one cent.

"increased call volume, sales productivity and customer retention levels."[36] Given MCI's stated motivations for introduction of this promotion, attributing such plans to a pass-through of access charges is a misrepresentation of the facts.

27. The basic economic point that eludes the IXCs is that in a competitive market, a reduction in marginal costs results not in a lower output price, but in a lower output price than otherwise would be the case. If other costs are falling in the industry, market price will fall, and an additional reduction in marginal cost—e.g., from a reduction in access charges—will give rise to an additional reduction in market price. Similarly, if demand is shifting towards less expensive products or services, ARPM will fall, but a reduction in marginal cost would cause an *additional* reduction in market price and in ARPM. MCI asserts:

> The incumbents do not seem to be able to grasp, for example, that MCI, with the introduction of its 5 Cents Sunday program and other initiatives, passed through savings well in excess of access charge savings to every MCI customer even before January access restructuring came into effect. That is because competitors see *creative opportunity* in price reductions where monopolies see only legal requirements.[37]

In saying that, MCI implicitly acknowledges that 5-cent Sundays were not required by market forces stemming from access charge reductions but from a creative opportunity that it (and AT&T and Sprint) observed. In a competitive market, customers benefit from such creative opportunities through the competitive introduction of new products, but they also—additionally—benefit from lower prices whenever marginal or average costs for all competitors fall.

28. In the current case, it is evident that—even measured by ARPM—no IXC has reduced per-minute prices since the January 1998 access charge reduction. This observation is confirmed by MCI's acknowledgement that it "passed through savings well in excess of access charges to

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[36] MCI Corporate Release, "MCI Quarterly Revenue Tops $5 Billion For First Time" released January 28, 1998.

[37] MCI letter, pp. 1-2 (emphasis added).

every MCI customer even before January access restructuring came into effect."[38] Sprint, too, must invent a new concept—"forward pricing"—to permit it to use ARPM reductions that occurred in the past as a pass-through for the January 1998 access charge reduction. The IXCs cannot count every event that causes them to reduce their prices or their ARPM as an access charge pass-through, and—at a minimum—reductions in ARPM that occurred prior to an access charge reduction cannot have been caused by access charge reductions and inexorable market forces.

C. Implementation Inconsistency Problems With ARPM

29. AT&T carefully explains how it calculated its reduction in access charges, clearly indicating that its calculation was on a reprice basis.[39] It held access quantities constant, and it calculated its access bill under two different access tariffs. This procedure is consistent with the way economists calculate price changes (except as discussed further below), and it is consistent with the theorems of price index theory. Inconsistently, AT&T compares the access price change calculated on that reprice basis with toll rates calculated using average revenue per minute (ARPM). The latter technique can yield misleading results and violates the proper procedure specified by price index theory.

30. Many extraneous factors can reduce ARPM even though AT&T could have kept rates constant or even raised them. Most disturbing is the following scenario: suppose that AT&T had been substituting either dedicated access or its own switched access for LEC-provided switched access.[40] It would have been decreasing its switched access bill by deploying dedicated access. Yet, since it holds its access demands constant in its calculation of the change in access rates, this reduction in its access bill does not show up in what it reports as its reduction in access charges. Suppliers in a competitive market would have passed through not

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[38] *Ibid.*, pp. 1-2.

[39] AT&T letter, p. 2.

[40] AT&T might also have excluded from its calculations what it pays to competitive access providers such as MFS.

only the reduction in charges for LEC-provided access, but also the reduction in costs enabled by the substitution of dedicated or self-provisioned switched access for LEC-provided access. Thus, when an IXC is deploying dedicated and self-provisioned switched access, one should expect that rates should fall by more than just the reduction in rates for LEC-provided access.

31. Furthermore, even though AT&T's calculation technique precludes our seeing reductions in access costs from the above-described type of substitutions, AT&T inconsistently chooses a technique for calculating toll "rates" that *does* enable substitutions to have an effect. For instance, if AT&T provides a customer with dedicated access instead of switched access, it reduces the customer's toll price per minute and imposes a fixed monthly charge. AT&T does not reveal whether it includes these fixed monthly charges in its calculations of average revenue per minute. Sprint appears explicitly to exclude fixed monthly charges from its calculation of ARPM.[41]

IV. DATA THE FCC NEEDS

32. To determine the effect of the January 1998 access charge changes, the Commission should recognize that whatever rate changes the IXCs might have made before January 1, 1998 are irrelevant to the question of whether they have passed through per-minute access charge reductions filed on that date. The Commission should also recognize that changes in ARPM that do not account for the change in the mix of services consumed are inadequate measures of the IXC's toll rate changes for the purpose of ensuring that access charge reductions are passed through in the long distance market, as they would be passed through in an effectively competitive market. AT&T, MCI and Sprint should submit to the FCC the following data:

- Report revenues and quantities of all switched services during, say, 4Q97. Include all calling plan subscription fees, recurring and nonrecurring charges for the dedicated portion of one-ended switched services such as WATS, 800 service, and Megacom. Also report the calculation of ARPM, where the total revenues from all those components are divided by

[41] "Revenue per minute was calculated by dividing total *minute-driven* revenues by total billed revenue minutes." Sprint letter, Attachment 2 (emphasis added).