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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
Access Charge Reform	)	CC Docket No. 96-262

PETITION FOR RECONSIDERATION
ON BEHALF OF AD HOC TELECOMMUNICATIONS USERS COMMITTEE

The Ad Hoc Telecommunications Users Committee ("Ad Hoc"), pursuant to section 1.429 of the Federal Communications Commission's Rules ("Commission"), hereby requests that the Commission reconsider its *Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262.*[1] Specifically, Ad Hoc shows below that the Commission acted in an arbitrary and capricious manner in giving no weight to the two studies that Economics and Technology, Inc. ("ETI") prepared for Ad Hoc and that Ad Hoc submitted in this proceeding.[2]

Attached hereto is the declaration of Patricia D. Kravtin, Vice President and Senior Economist at ETI. Ms. Kravtin's declaration persuasively shows that the *Price Cap Order* was factually wrong in finding that, "Ad Hoc submitted its models in the proprietary format of a commercial software program to which [the Commission did] not have access," and that there are other significant factual errors in the Commission's analysis of the ETI Reports. The Commission also

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1 Price Cap Performance Review for Local Exchange Carriers; Access Charge Reform, *Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262,* 62 Fed. Reg. 31939, (June 11, 1997) ("Price Cap Order").

2 The ETI reports are entitled: *Establishing the X-Factor for the FCC Long Term Price Cap Plan,* December, 1995, and *Reply to X-Factor Proposals for the FCC Long Term LEC Price Cap Plan,* March 1, 1996, ("ETI Reports").

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failed to address important arguments and data set forth in the ETI Reports. These errors caused the Commission to reject important elements of the ETI Reports, which if used would have produced an "X-Factor" of over nine percent. As a result of these errors, the Commission adopted an "X-Factor" that is far too low.

This petition does not repeat the arguments set forth in the Kravtin declaration. That declaration is part of this petition and provides good reason for Commission reconsideration of the *Price Cap Order.*

Accordingly, Ad Hoc requests that the Commission reconsider its rejection of the ETI Reports and make corresponding upward adjustments to the "X-Factor." The corrected X-Factor should exceed nine percent.

Respectfully submitted,

Ad Hoc Telecommunications Users Committee

By: _____

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July 11, 1997

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Attachment

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Before the
FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of	)	
	)	**CC Docket 94-1**
Price Caps Performance Review for Local Exchange Carriers	)	
	)	
Access Charge Reform	)	**CC Docket No. 96-262**

DECLARATION OF PATRICIA D. KRAVTIN

I, Patricia D. Kravtin, declare the following:

1. I am Vice President and Senior Economist at Economics and Technology, Inc. ("ETI"), a research and consulting firm specializing in telecommunications economics, regulation, management and public policy. I am an economic consultant to the Ad Hoc Telecommunications Users Committee ("Ad Hoc Committee" or "Ad Hoc") in connection with CC Docket 94-1, Price Cap Performance Review for Local Exchange Carriers.

2. I have been actively involved in telecommunications regulatory proceedings before the Commission and in state jurisdictions throughout the country encompassing a wide range of

issues, including revenue requirement, rates and tariffs, cost and demand studies, competition, alternative regulation, access charges and infrastructure/plant modernization. Over the past several years, I have done extensive analysis of price cap plans and related issues. My Statement of Qualifications is provided as Attachment 1 to this declaration.

3. I am the co-author (with Dr. Lee L. Selwyn, President of Economics and Technology, Inc.) of two reports prepared on behalf of the Ad Hoc Committee and submitted to the FCC in CC Docket 94-1: *Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan,* December, 1995, and *Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan*, March 1, 1996.

The Commission's decision not to give any weight to Ad Hoc's X-Factor estimates appears to have been predicated upon factual error and a misunderstanding of the nature of the software that was used in the preparation of our analysis.

4. This declaration addresses findings made by the Commission in the *Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262* (FR&O/SR&O), (adopted May 7, 1997) concerning the Total Factor Productivity (TFP) models submitted by the Ad Hoc Committee in CC Docket No. 94-1. As demonstrated below, the reasoning behind the Commission's decision "not to give any weight to Ad Hoc's X-Factor estimates" is based upon a number of factual errors.

5. In paragraph 33 of the FR&O/SR&O, the Commission finds that of the TFP models submitted by Ad Hoc, AT&T, and USTA, "no study in the record embodies the best TFP

calculation practices."[1] On this basis, the Commission Staff developed a model that in the Commission's view "calculates TFP using the most reasonable parts of each TFP study as it was presented by the record."[2] Based upon this paragraph in the FR&O/SR&O, and other subsequent paragraphs in which various aspects (both positive and negative) of the various models are discussed,[3] it would be reasonable to expect the Commission to have relied, at least in some part, upon each of the three TFP models identified in paragraph 33, including the model submitted by Ad Hoc. Yet, in paragraph 38, the Commission proceeds, in summary fashion, to state that no weight will be given to Ad Hoc's X-Factor estimates. For the reasons set forth in this declaration, the Commission's decision not to give weight to Ad Hoc's X-Factor estimates would appear to be more result-driven, i.e., influenced by the fact that Ad Hoc's estimates were at the high end of those submitted by the various parties, rather than based upon a careful and accurate review of the record evidence.

6. The Commission summarily dismisses Ad Hoc's X-Factor estimates on the following grounds: (1) "Ad Hoc submitted its models in the proprietary format of a commercial software program to which [the Commission did] not have access;" (2) "[Ad Hoc's] input price index appears to suffer some of the same infirmities as USTA's original model, and to exhibit erratic fluctuations;" and (3) "the revisions Ad Hoc does make to USTA's original TFP model do not

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1. FR&O/SR&O, para. 33.

2. *Id.*

3. See e.g., paras. 60-63 of the FR&O/SR&O wherein the Commission cites (and ultimately adopts) Ad Hoc's depreciation assumptions. See also paras. 104 wherein the Commission agrees with Ad Hoc's position that the input price differential results derived from the price indices in USTA's TFP study are not invalid just because USTA did not intend to use them, and in fact, can be used to produce reliable results regarding the input price differential.

improve the model."[4] I address the factual errors made by the Commission relative to each of these three objections in turn below.

The "TSP" econometric analysis software that was used to run Ad Hoc's models is publicly sold and distributed worldwide, is readily available to government agencies, including the Commission, is familiar to the Commission Staff, and is no more "proprietary" than software utilized by other parties or the Commission itself in models prepared for this proceeding.

7. The "TSP" (Time Series Processor) software that was employed by Ad Hoc to run its TFP models is a well-known, highly regarded, and widely used computer program that is a standard and common analytical tool among academic and consulting economists.[5] As noted in a letter from a TSP representative (provided as Attachment 2 to this declaration), "[t]he TSP (Time Series Processor) computer program has been available to the general public for almost twenty years and is sold and distributed worldwide, including government agencies."[6] In fact, TSP has been and/or is being used by a number of government agencies including the Federal

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4. FR&O/SR&O, para. 38.

5. See the following published independent evaluations of TSP:

Jeffrey K. Mackie-Mason, "Econometric Software: A User's View," *Journal of Economic Perspective*," Vol. 6, No. 4, Fall 1992, 165-187.

Junghun Kim and Pravin K. Trivedi, "Econometric Time Series Analysis Software : A Review, "*The American Statistician*, November 1884, Vol. 48, No. 4.

Julian Silk, "Systems Estimation: A Comparison of SAS, SHAZAM, and TSP," *Journal of Applied Econometrics*, 1996, Vol. 11, 437-450.

6. See Letter from Rossannah Reeves on behalf of TSP International, dated July 3, 1997 (Attachment 2 to this Declaration).

Trade Commission, the Federal Reserve Board, the Bureau of Labor Statistics, and the Treasury Department.[7]

8. There is no inherent difference in availability, proprietary status, or access to TSP as compared with any other publicly available software program on the market, such as Microsoft Excel or Lotus 1-2-3, which were used by other parties. TSP does, however, contain a number of specialized applications in economics, and because of this specialization, the marketing and distribution of TSP is targeted to the economics profession. TSP is advertised for sale on a regular basis in a number of well-known economic journals including the *American Economic Review* (AER) published by the American Economic Association (AEA); a copy of one such advertisement is provided here as Attachment 3.[8]

9. In its initial Report, submitted to the Commission December 1995 in CC Docket 94-1, Ad Hoc explicitly identified the TSP software that it had used and provided the full name, address, and telephone number of the company that both markets and supplies technical support for the TSP software.[9]

10. Subsequent to the filing of the initial Ad Hoc Report in CC Docket 94-1, a number of Ad Hoc's legal and economic advisors, including myself and other ETI personnel, had

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7. See Letter from Rossannah Reeves, *op cit.*

8. The TSP advertisement reproduced in Attachment 3 appeared in the *American Economic Review* numerous times over the course of the year.

9. Lee L. Selwyn and Patricia D. Kravtin, *Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan*, submitted with the Ad Hoc Telecommunications Users Committee Initial Comments, CC Docket No. 94-1, December, 1995, p.154, footnote 160.

numerous telephone conversations and *ex parte* meetings with FCC staff members regarding the Ad Hoc models. At no time was there any indication given to suggest that (1) the FCC considered Ad Hoc's use of TSP to be a problem, (2) that FCC economists were unfamiliar with the TSP software; and/or (3) that the FCC did not have access or could not readily gain access to the TSP software. Indeed, to the extent that any of the above conditions were true, Ad Hoc would have undertaken to provide the FCC with a copy of TSP and would have been available to instruct any FCC economist unfamiliar with the TSP program.[10]

11. In point of fact, there was no such indication that the FCC staff members assigned the task of reviewing and verifying the Ad Hoc models needed any assistance to complete their analysis. Moreover, the analysis set forth in Appendix D of the FR&O/SR&O suggests that FCC economists possessed a detailed knowledge of, and had no difficulty understanding or analyzing, the workings of the Ad Hoc models.[11] Unlike the Commission's finding at para. 38, the FCC Staff economists made no distinction between the Ad Hoc and other parties' models with respect to the consideration that was afforded each of the submission; certainly the Staff economists did not dismiss the Ad Hoc model out-of-hand or complain of any particular difficulties that they may have encountered in reviewing, running, or using it.

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10. TSP representatives have indicated to me that, notwithstanding the public availability of the TSP program, TSP would have readily granted ETI permission to provide the FCC (or other governmental agency) with a copy of the TSP software for purposes of verifying ETI' results. Conversation with Rossannah Reeves, representative of TSP, July 2, 1997.

11. See Appendix D, *Estimation of TFP under FCC Rules, FCC Synthesis*, C. Anthony Bush and Lori Huthoefer at D-7, D-8.

12. Ad Hoc's decision to use TSP was based on the accuracy, efficiency, and ease with which TSP computes the fundamental components of a total factor productivity analysis.[12] The ability of TSP to provide an independent check on the spreadsheet formulas that were used in the USTA/Christensen and AT&T models provided another important rationale for the use of TSP.

13. For the reasons set forth above, it is both illogical and factually incorrect for the Commission to conclude that it did not have access to the TSP software used by Ad Hoc to develop X-Factor estimates. The Commission's determination that the Ad Hoc model is to be given no weight is inconsistent with the factual conditions relating to the TSP software and is without support even from the Commission's own Staff.

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12. Ad Hoc/ETI Report, *Establishing the X-Factor*, *op cit*, p.154, footnote 160.

Fluctuations in Ad Hoc's input price index results reflect a consistent pattern of corrections to the data; remaining fluctuations are a function of the underlying empirical data rather than the result of Ad Hoc's choice of methodology.

14. The Commission asserts that the Ad Hoc input price index "appears to suffer some of the same infirmities as USTA's original model and to exhibit erratic fluctuations."[13] The Commission subsequently appears to generalize its criticism of the Ad Hoc model (at para. 137):

> Also as discussed above, Ad Hoc's model relies heavily on methodologies USTA employed in its *original* TFP model reviewed in the *LEC Price Cap Performance Review* and discussed in the *Price Cap Fourth Further Notice*. Ad Hoc's adjustments to the USTA *original* model do not adequately address the problems we found with that model.

Emphasis supplied. Unfortunately, because the Commission does not identify the specific infirmities to which it refers, one cannot systematically evaluate the basis for the Commission's finding. However, since USTA's *revised* or "simplified" model[14] employed fundamentally the same study methodology as the original,[15] it is totally unclear what infirmities the Ad Hoc and original USTA model would share that would not also be shared by the revised USTA model.[16]

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13. FR&O/SR&O, Para. 38.

14. See *Total Factor Productivity Methods for Local Exchange Carrier Price Cap Plans*, Attachment A to USTA's January 16, 1996 Initial Comments, CC Docket 94-1.

15. See *Reply to X-Factor Proposals*, *op cit*, pp. 2-3, pp. 26-33.

16. The Commission's treatment at para. 137 of USTA's "revised" or "simplified" X-factor estimate is, at the very least, confusing. While assigning the same "no weight" conclusion to USTA's X-factor estimates as it did to Ad Hoc's model, the Commission nonetheless includes USTA's X-factor calculations in the *Summary of X-factors* table in para. 137. By contrast, Ad

(continued...)

15. Similarly, the Commission does not specify the "intermediate results" of the Ad Hoc model which provide the basis for the Commission's conclusion that the Ad Hoc input price index exhibits "erratic fluctuations."[17] Presumably, the results to which the Commission is referring are the results presented in the Ad Hoc reports submitted in CC Docket No. 94-1 which provide a breakdown of the X-Factor into the component parts of TFP, Input Price Differential (IPD), and Consumer Productivity Dividend (CPD).[18] Those results do indicate varying levels of the input price *differential* (determined by the Ad Hoc model as the difference between the input price index and the GDP-PI) depending upon the application of certain corrections including the incorporation of an hedonic price adjustment,[19] and also depending upon the time period studied.[20] It would appear that the FR&O/SR&O mistakenly identifies and treats the input price differential presented by Ad Hoc as the input price *index*.

16. The results that formed the basis of Ad Hoc's X-Factor recommendation covered the entire post-divestiture period for which consistent data was available, i.e., the period 1984 to

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16. (...continued)
Hoc's estimates, which presumably were afforded equally "no weight," are not presented in that summary table at all.

17. *Id.*

18. See *Establishing the X-Factor, op cit,* at Chapter 4, and *Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan*, March 1, 1996, at Chapter 3.

19. See comparison of Tables 3, 4, and 5 in *Establishing the X-Factor for the FCC Long-Term LEC Price Cap Plan,* pp. 55-57.

20. See *Reply to X-Factor Proposals, op cit*, Tables 2, 3, and 4, pp. 36-38.

1993.[21] For that study period, the input price differential results presented by Ad Hoc are extremely robust. The "uncorrected" or "base case" version of Ad Hoc's input price differential (2.1%) is extremely comparable to the input price differential calculated in the FCC Staff model (2.2%)[22] and in the AT&T model (2.35%).[23] Application of a number of appropriate corrections to the USTA model (discussed in more detail below) produced an increase in the input price differential of 1.3%. A further correction to reflect an hedonic price adjustment (also discussed in more detail below) produced an additional increase in the input price differential of 0.9%. These additives (to the input price differential) were consistently produced by the Ad Hoc model for all time periods evaluated.[24]

17. Other than these consistent adjustments for corrections to the USTA model, the remaining fluctuations observed in the Ad Hoc model's input price differential are a function of the underlying empirical data rather than the choice of modeling technique. The fluctuations are not limited, as the Commission implies, to the Ad Hoc and original USTA models. The

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21. As clearly stated in the Ad Hoc reports, Ad Hoc strongly endorsed use of data for the *entire* post-divestiture period, and not the truncated study periods examined in the revised USTA study. *Establishing the X-Factor*, pp. 54-55; and *Reply to X-Factor Proposals,* pp. 25-26, p. 36. Among other compelling rationale for selecting the entire post-divestiture period as the appropriate study period, Ad Hoc explained that data gathered over a longer time period will be more robust for predictive purposes "except where it can be shown that some fundamental charge has occurred - such as occurred at the time of divestiture." *Reply to X-Factor Proposals,* pp. 25-26, p. 36.

22. See FR&O/SR&O, Appendix D, *op cit.*, Chart D1, Comparison of FCC LEC Price Cap X-Factor [Excluding CPD].

23. AT&T 1997 Reply, App. G at 34.

24. Compare Tables 3 and 5 in *Establishing the X-Factor*, pp. 55, 57, and Tables 2 and 3 in *Reply to X-Factor Proposals,* pp. 36-37.

fluctuations are attributed to the natural variation occurring in the underlying data used in the development of the input price differential, the input price index for the LECs – which is comprised of factor price indices for labor, materials, and capital, weighted by the relative factor shares, and the benchmark input price index for the economy as whole (GDP-PI in the case of the Ad Hoc Model, the U.S. Nonfarm Business Sector input price index in the case of the FCC Staff model).

18. Even the model developed by the FCC Staff and upon which the FCC relies in setting the X-Factor exhibits a considerable degree of year-to-year fluctuation in input price growth rates and the associated input price differential. For example, the input price index calculated under the FCC Staff model ranges from +4.94% (in the year 1986) to –2.36% (in the year 1989), with the corresponding input price differential ranging from –2.13% (in the year 1986) to +0.21% (in the year 1992).[25]

The Commission dismisses the Ad Hoc model without giving reasonable consideration to the corrections made in the Ad Hoc models.

19. The third rationale advanced by the Commission for its dismissal of the Ad Hoc X-Factor estimates is the finding that the revisions Ad Hoc makes to USTA's original TFP model does not improve the model.[26] The Commission identifies three specific revisions in the FR&O/SR&O: (1) An adjustment for an interstate-only TFP; (2) an adjustment for hedonic

25. See FR&O/SR&O, Appendix D, *op cit.*, Chart D1, Comparison of FCC LEC Price Cap X-Factor [Excluding CPD].

26. FR&O/SR&O, para. 38.

price changes, and (3) no weighting of the capital input index on a residual earnings basis.[27] As discussed below, the Commission does not give careful consideration to the arguments presented by Ad Hoc in response to the first two adjustments. The third adjustment does not appear to be discussed at all beyond this initial mention, and moreover, it would appear to relate to a correction relative to the revised USTA model rather than to the original model as suggested in the FR&O/SR&O.[28]

20. With respect to the adjustment for an interstate-only TFP, the Commission finds that none of the parties taking a position on the subject "provide a factual or theoretical explanation as to why its assumption might be correct."[29] This statement is simply not accurate as pertains to Ad Hoc.

21. In the Ad Hoc/ETI Report, *Establishing the X-Factor*, four specific factual and/or theoretical rationales were presented and explained in support of the Ad Hoc position of a valid distinction between interstate and intrastate TFP. These include: (1) differences in the rate of demand growth for individual services; (2) differences in the input mix for individual services; (3) disproportionate presence of highly capital-intensive, switched services in the interstate jurisdiction; and (4) arbitrary assignment of rate base and operating expenses as between the interstate and state jurisdictions.[30] The Ad Hoc/ETI Report further discussed the reasons why

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27. *Id.*

28. See *Reply to X-Factor Proposals*, *op cit*, pp. 27-32.

29. FR&O/SR&O, para. 110.

30. *Establishing the X-Factor*, pp. 46-48.

use of a total company TFP measure as the basis for an interstate X-Factor will create a systematic upward bias in year-to-year changes in interstate rate levels, and why the presence of that bias will permit the LEC to keep the interstate windfall while claiming poverty in the state jurisdiction.[31]

22. The Commission did not substantively address the varied factual and theoretical arguments presented by Ad Hoc. Instead, the Commission focused solely upon the very last point concerning the ability of a LEC to keep an interstate windfall, finding that "unsupported claims of a potential LEC windfall do not by themselves convince us that there is any factual basis for concluding there is a systematic difference between interstate and intrastate productivity."[32] The fact is that Ad Hoc did present a factual basis, only it was ignored by the Commission.

23. Significantly, the position taken by Ad Hoc that output growth for interstate services has differed substantially from intrastate services was acknowledged by NYNEX and Ameritech.[33] NYNEX went so far as to embrace the desirability of refining TFP results "to reflect the intuited greater degree of interstate productivity," while Ameritech indicated a willingness to consider an adjustment for an interstate output growth factor.[34] The

31. *Id.*, pp. 48-49.

32. FR&O/SR&O, para. 111.

33. See NYNEX Comments, p. 13; Ameritech Comments, p. 7.

34. *Id.*

Commission appears to have ignored entirely these LEC comments that give strong credence and corroboration to the Ad Hoc position.

24. The Commission similarly finds nothing in the record to support an hedonic price adjustment of the type proposed by Ad Hoc and AT&T.[35] According to the Commission, "neither Ad Hoc nor AT&T have shown that their hedonic adjustments accurately measure the effects of technological improvements ... Based on the record before us, there is no need to include an hedonic adjustment."[36] The Commission's finding is again factually incorrect.

25. First, Ad Hoc presented a substantial body of evidence in support of the proposed adjustment for hedonic price changes. Ad Hoc's discussion, found at pages 36 to 42 of *Establishing the X-Factor,* is reproduced in Attachment 4 to this declaration.

26. Second, the 10 percent annual adjustment incorporated in the Ad Hoc model is not stated as an unsupported assumption as asserted by the Commission.[37] Rather, as stated in the Ad Hoc/ETI Report, the 10% figure, which is applied only to asset price deflators most closely associated with computers, is a highly conservative amount *strongly supported* by economic literature. This literature (summarized in the excerpt provided in Attachment 3 to this declaration) provides evidence of persistent and significant technological advances and product improvements that have occurred in the computer industry over the past decade and that have

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35. FR&O/SR&O, para. 67.

36. *Id.*

37. *Id.*

had dramatically altered the quality and capacity of many types of capital inputs used by the LECs.[38] Indeed, in a recent proceeding adopting digital television standards, the Commission expressly recognized the decreasing costs and prices for digital products that are expected to occur.[39]

27. In rejecting the use of any adjustment for hedonic effects, both the Commission Staff Model along with the USTA model implicitly assume an hedonic price change of *zero*. *The only evidence in the record on the subject of hedonic effects supports an adjustment well in excess of the modest 10% used by Ad Hoc*; there is no support in the record whatsoever for an adjustment of zero. In light of the evidence detailed in Attachment 3 of this declaration, the Ad Hoc use of a ten percent hedonic price adjustment is much more credible than the USTA assumption of zero.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

Patricia D. Kravtin

Date: July 11, 1997

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38. *Establishing the X-Factor*, p. 57.

39. See Federal Communications Commission, 47 CFR Part 73, MM Docket No. 87-268; FCC 97-116] at para. 78.

ATTACHMENTS

Attachment 1:	Statement of Qualifications
Attachment 2:	Letter from TSP Representative
Attachment 3:	Advertisement as appeared in *The American Economic Review*, May, June, September, and December, 1996
Attachment 4:	Discussion of Hedonic Price Changes Excerpted from Ad Hoc/ETI Report, *Establishing the X-Factor for the FCC Long-Term LEC Price Cap Plan; Price Cap Performance Review for Local Exchange Carriers*, December, 1995

Attachment 1

Statement of Qualifications

PATRICIA D. KRAVTIN

Patricia D. Kravtin is Vice President and Senior Economist at ETI. Ms. Kravtin did graduate study in the Ph.D. program in Economics at the Massachusetts Institute of Technology, where she was a National Science Foundation Fellow. Her fields of study have included Industrial Organization, Government Regulation of Industry, and Urban and Regional Economics. While at M.I.T., Ms. Kravtin performed research for the Sloan School of Management and the Joint Center for Urban Studies of M.I.T. and Harvard. Her own empirical work has centered on multiproduct industries and has included econometric estimation of multiproduct cost functions and measurement of product-specific economies of scale and economies of joint production.

While in Washington, D.C., Ms. Kravtin gained valuable insight into the regulatory process performing research and policy analysis at the United States Department of Commerce, the Securities and Exchange Commission, and the Private Radio Bureau of the Federal Communications Commission.

Since joining ETI in 1982, Ms. Kravtin has been actively involved in telecommunications regulatory proceedings in state jurisdictions throughout the country and has frequently testified as an expert witness before regulatory commissions. Ms. Kravtin has testified before the Rhode Island Public Utilities Commission, the Maine Public Utilities Commission, the Florida Public Service Commission, the New York Public Service Commission, the Louisiana Public Service Commission, the Minnesota Public Utilities Commission, the Mississippi Public Service Commission, the Arizona Corporation Commission, the Kentucky Public Service Commission, the Delaware Public Service Commission, the Georgia Public Service Commission, the Tennessee Public Service Commission, the New Hampshire Public Utility Commission, the New Jersey Board of Regulatory Commissioners, the Arkansas Public Service Commission, the Kansas Corporation Commission, the California Public Utilities Commission, and the Puerto Rico Telecommunications Regulatory Board. Ms. Kravtin has also testified as an expert witness in anti-trust litigation before the United States District Court for the Eastern District of Tennessee at Greeneville.

Ms. Kravtin's assignments have involved the analysis of both rate design and revenue requirements issues. She has performed analyses of various cost methodologies used by telephone companies to determine costs and set rates, and econometric demand models used to develop estimates of repression and stimulation of demand as a result of price changes. She has conducted numerous analyses of the costs and benefits of local measured service.

Ms. Kravtin has also been involved in the analysis of issues relating to telephone company modernization expenditures and plant utilization. Ms. Kravtin has presented testimony on the subject of infrastructure/plant modernization before the Ohio General Assembly senate select Committee on telecommunications Infrastructure and Technology and the New Jersey Senate Transportation and Public Utility Committee.

More recently, Ms. Kravtin has gained extensive expertise in the area of video and multi-media information service markets. Ms. Kravtin has submitted numerous filings before the FCC concerning the economics of video dialtone investment and/or VDT tariffs proposed by New Jersey Bell, Pacific Bell, Ameritech, Southern New England Telephone, US West, GTE, Bell Atlantic, BellSouth, NYNEX, Puerto Rico Telephone Company and Carolina Telephone in over 25 Section 214 Application proceedings. Over the past year, Ms. Kravtin has actively participated in a number of proceedings relating to the implementation of local competition pursuant to federal and state legislation, covering such topics as universal service, cost of basic service, interconnection, unbundling of network elements, and tariff development for new entrants.

Ms. Kravtin has authored and co-authored numerous papers and reports pertaining to these issues. These include the following:

"The Economic Viability of Stentor's 'Beacon Initiative,' Exploring the extent of its financial dependency upon revenues from services in the Utility Segment," prepared for Unitel, submitted as evidence before the Canadian Radio-television and Telecommunications Commission, March 1995.

"A Public Good/Private Good Framework for Identifying Pots Objectives for the Public Switched Network" prepared for the National Regulatory Research Institute, October 1991;

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990;

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990; and

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

Ms. Kravtin has also been actively involved in the analysis of issues relating specifically to industry structure, BOC market power and MFJ restrictions, regulatory reform, price caps regulation, access charge reform, and local and long-distance competition in the telecommunications industry at both the state and federal level and persuant to the 1996 Telecommunications Act. Ms. Kravtin has served as an expert witness in antitrust cases involving BOC monopolization. She has co-authored numerous papers and reports pertaining to these issues. These include the following:

"Reply to Incumbent LEC Claims to Special Revenue Recovery Mechanisms," submitted in the Matter of Access Charge Reform in CC Docket 96-262, February 14, 1997.

"Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empitical analysis of the "Gap" between embedded and forward-looking costs," submitted in CC Docket 96-262, January 29, 1997.

"Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the "Gap" between Historical Costs and Forward-looking TSLRIC," Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, submitted in FCC CC Docket 96-98, May 30, 1996.

"Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, March 1, 1996.

"Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, December, 1995.

"Fostering a Competitive Local Exchange Market in New Jersey: Blueprint for Development of a Fair Playing Field," prepared for the New Jersey Cable Television Association, January 1995.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," February 1994.

"A Note on Facilitating Local Exchange Competition," prepared for E.P.G., November 1991;

"Testing for Effective Competition in the Local Exchange," prepared for the E.P.G., October 1991;

"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990;

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, Virginia, December 1988;

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society at MIT, July 1988;

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988;

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Ms. Kravtin attended George Washington University on an Honor Scholarship where she received a B.A. with Distinction in Economics. She was elected to Phi Beta Kappa and Omicron Delta Epsilon in recognition of high scholastic achievement in the field of Economics. Ms. Kravtin is a member of the American Economic Association.

Attachment 2

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To Whom It May Concern:

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Sincerely,

Rossannah Reeves

Rossannah Reeves
on behalf of TSP International