

compute the LECs' X-Factor for interstate access services is therefore conceptually unsound and legally unjustified.

4. The USTA model made erroneous capital input calculations.

As Dr. Norsworthy points out (App. A at pp. 31-58), the USTA model's capital input calculations are deficient in several major respects: (1) some of the data used in USTA's capital input calculations are derived from non-public, inaccessible sources and compiled according to unspecified LEC procedures, which cannot be assessed or audited by outside parties; (2) the USTA model erroneously applies an assumed cost of capital in its capital input calculation; (3) the USTA model does not distinguish between debt and equity in the financial capital structures of the LECs; (4) the USTA model erroneously assumes a cost-minimizing utilization of capital for all LECs at all times, thus disregarding the actual performance of the LECs; (5) the USTA model uses improper depreciation rates based on an outdated study of allegedly "economic" depreciation, that is not related to the telecommunications industry, and thus disregards depreciation rates prescribed by this Commission; and (6) the USTA model does not adjust for changes in the performance of capital.

Cost of Capital. The USTA model misstates the long-run cost of capital to be used in the TFP method (App. A at pp. 31-47). As the Commission observed, the cost of capital in the USTA

model (Christensen Study) was derived from yields on Moody's Public Utility Bonds.¹⁸ USTA assumes, incorrectly, that the LECs have an all-equity capital structure and that Moody's bond yields can be used to represent the after-tax cost of equity. USTA is wrong in basing the LECs' entire cost of capital solely on the cost of debt, and thus it overstates the cost of capital. Rather, the proportion of debt and equity capital in the LECs' financial capital structures should be recognized, as it is in the regulatory process.

Moreover, the USTA model improperly assumes a fixed (hypothetical) cost of capital, and that the capital stock is adjusted to a cost-minimizing level each year (App. A at pp. 31-45). As a result, the weight assigned to capital in its TFP measure is misstated, and the actual rate of return performance of the LECs is ignored. The appropriate treatment of capital should recognize that the capital stock is not always adjusted to a cost-minimizing level, and the actual level of capital input should be used to compute the rate of return realized by the LECs. The LECs' actual return levels should be used in computing the weight of the capital input in the TFP calculation. (App. A at pp. 31-47, 78-81.)

¹⁸ Fourth Further Notice, ¶ 34; First Report and Order, 10 FCC Rcd. at 9014 (¶ 116, n. 191).

Consequently, the USTA model, premised on these untenable assumptions, does not allocate all of the LEC revenues to inputs. In particular, the USTA allocation of revenues to capital may exceed or fall short of the actual return to capital realized by the LEC. The proper procedure (not followed in the USTA model) is to attribute all revenues received by the LEC to some category of input, i.e., labor, capital or materials. This would conform to the economic theory of the enterprise operating in the short- or long-run.

A principal difference between the USTA model and the Performance-Based Model involves their respective assignments of costs to capital. The Performance-Based Model, like the regulatory process itself, treats the difference between total revenues and expenses (for labor and materials) as a gross return on capital. Thus, in the Performance-Based Model, all revenues received by the LECs are assigned to some input cost category. On the other hand, the USTA model assumes a long-term user cost per unit of capital, and assigns a total cost of capital that is the product of the quantity of capital input and the long-term user cost, which is based on an assumed rate of return.

The long-term user cost in the USTA model assumes that the capital stock is fully adjusted to a level that minimizes total cost in each period. The USTA assumption is therefore based on a hypothesis of full competition, i.e., that the markets

for inputs and outputs are fully competitive. Clearly, these conditions do not exist currently in the local telecommunications markets. Because these conditions are not present, there will be residual revenues in the USTA model. This residual may be positive or negative. If positive, it represents an excess return to capital compared to the long-run equilibrium user cost. (App. A at pp. 35-45.)

There are important reasons why total revenues should equal the total costs assigned to the inputs. This is required, in principle, by the economic theory of production, and it is mandated, in practice, by the regulatory authorities. In a competitive market the existence of a positive residual (excess) return will attract new entrants, while the existence of a negative residual return will cause the firm to withdraw some resources and direct those resources to other uses promising higher returns.

Because the USTA model ignores the excess return to capital in its calculation of TFP, there would be no incentive under its approach for the LECs to adapt the quantity of capital to the overall cost-minimizing level. In other words, under the USTA approach whatever level of capital a LEC chooses to put in place is guaranteed a normal rate of return, just as under the former rate-of-return regulation. And under price cap regulation the LEC gets an added bonus if its residual return is positive --

that is, if total revenues exceed the costs of labor and materials plus a normal rate of return on capital -- by permitting the LEC to keep the excess. Unlike the situation in a competitive market, there would be no incentive for the LEC to move toward a cost-minimizing technology.

Depreciation. The USTA model employed what was characterized to be "economic" depreciation rates rather than the depreciation rates prescribed by the Commission. Fourth Further Notice, ¶ 37. USTA used rates allegedly coming from a Jorgenson study, but which in fact came from a 15-year old study (Hulten and Wykoff, 1981). The source study for the USTA depreciation rates used data not reflecting the effects of divestiture and the introduction of significant technological advances (e.g., fiber transmission and advanced digital central office switches) (App. A at pp. 47-49). In fact, the Hulten-Wykoff study was based on data ending in 1972, and it did not even deal with telecommunications plant and equipment. In short, the actual rates of "economic" depreciation under current conditions cannot be determined in the manner employed in the USTA model, which is dependent on estimates that are clearly inapplicable and out of date. There is no basis for USTA to abandon depreciation rates prescribed by the Commission under Part 32 of its Rules, pursuant to Section 220(b) of the Communications Act.¹⁹ This is sure to distort the capital input measures in its model.

¹⁹ See Fourth Further Notice, ¶¶ 38-40.

Performance changes in capital. The USTA capital input calculation ignores significant performance (quality) changes in the LECs' plant during recent years. This practice substantially overstates the growth in prices for the LECs' telephone plant. Disregarding quality improvements in telephone plant results in higher measured capital input growth and understates the input price differential. (See App. A at pp. 49-58.)

5. Other infirmities in the USTA model detract from its validity and reliability in calculating the LECs' X-Factor.

Dr. Norsworthy's statement (App. A at pp. 59-66) enumerates other deficiencies in the USTA model. These include (1) the improper aggregation of outputs in the USTA model exclusively by revenue weights, and (2) the USTA model's failure to allow for changes in quality of service. These points are explained in the statement of Dr. Norsworthy (*id.*) and are discussed briefly below.

First, the USTA model aggregates output using revenue weights exclusively. Under recognized economic principles, marginal cost weights should be used. Revenue weights approximate marginal cost weights in circumstances where full competition exists in the output market. In such a competitive market, rates tend to be pushed toward marginal costs. Until the LECs' interstate access market reaches a fully competitive status

(which is not the case at present), revenue weights cannot be assumed to approximate marginal cost weights.

Second, the USTA model makes no allowance for changes in the quality of telecommunications service. As Dr. Norsworthy points out, there is evidence suggesting that quality has declined as the LECs' productivity and profitability have increased. Under LEC price cap regulation, there may be an incentive to subordinate quality in order to achieve productivity gains. Although there are other ways of preserving quality of service in a price cap regime, consideration should be given to taking into account changes in quality of service in the procedures to measure the TFP.

6. Because of the pervasive deficiencies in the USTA model, its results substantially understate the LECs' X-Factor.

USTA proposed to the Commission on January 18, 1995, that the appropriate X-Factor to be used in the LEC price cap plan should be set as equal to the TFP growth differential for all LECs relative to economy-wide TFP growth. On the basis of the USTA model (whose deficiencies were described above), USTA calculated this TFP differential to be 2.5 or 2.6 percent, determined by five-year moving averages ending in 1990, 1991, and 1992. First Report and Order, 10 FCC Rcd. at 9014-15 (¶¶ 117-18). Given the fact that it assumed (erroneously) that the input price differential between the LECs and the U.S. economy was

zero, USTA's model purported to produce an X-Factor of only 2.5 - 2.6 percent -- a value that grossly understates the LECs' X-Factor, if properly measured.

As demonstrated below (pp. 27-29) and in Dr. Norsworthy's statement (App. A), the Performance-Based Model, which is based on the TFP method but corrects for the manifest errors in the USTA model, indicates that the LECs' X-Factor is substantially more than that calculated by USTA. The Performance-Based Model produces an X-Factor of 7.33 percent for the LECs' interstate access services on the basis of the period 1985-1994. The results of that model further quantify the understatements related to two of the major deficiencies in the USTA model -- (1) its omission of the input price differential, and (2) its measurement of productivity on a total company basis, rather than on an interstate only basis. The results from the Performance-Based Model indicate that the omission of the input price differential in the USTA model understates the X-Factor in the amount of 2.54 percent. Also, as the Performance-Based Model results show, USTA's failure to measure productivity growth on the basis of interstate only data further understates the TFP (and thus the X-Factor) in the amount of at least 1.93 percent. (See App. A at p. 28.)

The substantial understatements inherent in the USTA model are readily apparent from the actions of the LECs following

the Commission's adjustment of the X-Factor in the First Report and Order. The Commission in the LEC Performance Review proceeding chose not to adopt the results of the USTA model. Instead, it adjusted its original LEC price cap methodology (by excluding its previously used 1984 data point) to recalculate and establish the minimum X-Factor at 4.0 percent, rather than the former 3.3 percent. First Report and Order, 10 FCC Rcd. at 9053-54 (¶¶ 208-09). On a going-forward basis, the Commission set the minimum X-Factor at 4.0 percent for the interim plan, and also increased the number of X-Factor options from two to three. The other optional X-Factors were set at 4.7 percent and 5.3 percent. Id. at 9055 (¶ 214).

Notably, five of the seven Regional Bell Operating Companies (Ameritech, Bell Atlantic, BellSouth, PacTel, and Southwestern Bell) elected the highest X-Factor of 5.3 percent; GTE elected 5.3 percent for 38 out of its 46 study areas; and other major independent LECs (United, Rochester and Lincoln) similarly chose the 5.3 percent X-Factor. Fourth Further Notice, ¶ 8. In other words, the overwhelming majority of the price cap LECs selected an X-Factor that substantially exceeded that produced by the USTA model. The actions of the LECs themselves, in adopting a much higher X-Factor for their own price cap adjustments, certainly belie the validity and accuracy of the results reached by the USTA model.

B. The Appropriate TFP Method For Calculating the X-Factor Is The Performance-Based Model.

In response to the Commission's statement in the Fourth Further Notice (§ 25) that the "TFP approach appear[s] ideally suited to determining the X-Factor," AT&T developed a TFP method that did not have the many substantive defects of the USTA model. AT&T's TFP model, developed in collaboration with Dr. Norsworthy, a recognized TFP expert, is known as the Performance-Based Model.

The Performance-Based Model corrects many of the infirmities of the USTA model. Among other things (1) this model properly takes into account the input price differential between the U.S. economy and the LECs; (2) the model relies entirely on data that are publicly available and auditable; (3) the model correctly relies on interstate only data, not total company data; and (4) the model allocates capital input expenses on the basis of the actual performance of the LECs, rather than by assuming a fixed rate of return and a cost-minimizing level of capital. The following table compares various aspects of the Performance-Based Model with the model submitted by USTA (see App. A at pp. 67-83).

**Differences Between The Performance-Based Model
and The USTA (Christensen) Model**

PERFORMANCE-BASED MODEL	USTA MODEL
<ul style="list-style-type: none"> • Calculations based on publicly available data and fully documented procedures 	<ul style="list-style-type: none"> • Calculations based on non-public, partially "proprietary" data that are not auditable
<ul style="list-style-type: none"> • Directly measures the total US - LEC input price differential 	<ul style="list-style-type: none"> • Ignores US-LEC input price differential on assumption it is zero
<ul style="list-style-type: none"> • Calculates separate X-Factor for LECs' interstate access services 	<ul style="list-style-type: none"> • Only total company X-Factor is computed
<ul style="list-style-type: none"> • Measures actual utilization of capital at LECs. Allows for excess or deficient returns to capital input 	<ul style="list-style-type: none"> • Assumes optimal (cost-minimizing) utilization of capital at all times. Makes no allowance for excess or deficient returns to capital input
<ul style="list-style-type: none"> • Computes cost of capital and rate of return on basis of actual performance of the LECs 	<ul style="list-style-type: none"> • Assumes a user cost of capital that differs from actual capital costs assessed on ratepayers
<ul style="list-style-type: none"> • All input costs are accounted for in calculations 	<ul style="list-style-type: none"> • Some costs levied on customers (excess return on capital) are omitted
<ul style="list-style-type: none"> • Measures actual performance of the LECs 	<ul style="list-style-type: none"> • Assumes that all inputs, including capital, are at cost-minimizing levels for all LECs in all years
<ul style="list-style-type: none"> • Allows for separate costs of debt and equity capital 	<ul style="list-style-type: none"> • Costs of capital do not distinguish debt from equity, and thus are distorted
<ul style="list-style-type: none"> • Depreciation for TFP input cost calculation based on Commission -- prescribed rates 	<ul style="list-style-type: none"> • Employs outdated depreciation rates as part of TFP input costs
<ul style="list-style-type: none"> • Adjusts capital stock for technological changes in performance of capital goods 	<ul style="list-style-type: none"> • Makes no adjustment to capital stock for technological changes in performance of capital goods
<ul style="list-style-type: none"> • Uses actual material price index 	<ul style="list-style-type: none"> • Uses national output prices (GDP-PI) as proxy

PERFORMANCE-BASED MODEL	USTA MODEL
• Same historical period used for all elements	• Different data periods used for different elements

Under the procedures for the Performance-Based Model, described in Dr. Norsworthy's statement (App. A at pp. 66-89), the model produced the following productivity results for the LECs' interstate access services during the period 1985-1994:²⁰

TFP Growth -- LECs	4.94%
Less: TFP Growth -- Non-Farm Business Sector	<u>0.15%</u>
TFP Growth Differential	4.79%
Input Price Differential	<u>2.54%</u>
X-Factor	<u>7.33%</u>

On the basis of the proper procedures for measuring TFP and the input price differential, the correct X-Factor for interstate access to be reflected in the LECs' price cap plan is, therefore, 7.3 percent (rounded).

²⁰ See Table 7, App. A at pp. 28 and 76. The beginning year for the Performance-Based Model is 1985, consistent with the Commission's exclusion of 1984 for purposes of X-Factor measurement. See First Report and Order, 10 FCC Rcd. at 9053 (¶ 208).

C. The Commission Should Retain Multiple X-Factors And Should Not Adopt A Five-Year Moving Average.

In the First Report and Order, the Commission tentatively concluded that the long-term plan should include at least two X-Factors. First Report and Order, 10 FCC Rcd. at 9035 (¶ 165). The Commission also tentatively concluded that there might be some benefits to adopting a moving average X-Factor. Id. at 9030 (¶ 153). The Commission seeks comment on both issues. See Fourth Further Notice, ¶¶ 96-111. For the reasons explained below, the Commission should include two fixed X-Factors in the long-term plan, but should reject the USTA proposal of moving average X-Factors. The X-Factors should be respecified, if necessary, at the end of a three-year performance review period.

1. The Commission should permit a choice of two X-Factors.

Although a single, industry-wide X-Factor would most closely replicate the conditions the LECs would face in a competitive market, the Commission has consistently held since the inception of LEC price cap regulation that a single X-Factor would not adequately take into account the different circumstances that each LEC faces. See, e.g., Fourth Further Notice, ¶ 109; First Report and Order, 10 FCC Rcd. at 9035 (¶ 165). The Commission has recognized several sources of variability in economic conditions, such as varying levels of economic growth in regional economies and varying proportions of

rural and urban areas in a LEC's service area. E.g., Fourth Further Notice, ¶ 109. As the Commission notes in the Fourth Further Notice, a single X-Factor could "unfairly penalize or reward LECs which face conditions that differ from the industry average." Id.

The Commission should therefore establish two X-Factors in the long-term plan.²¹ According to AT&T's measure of the LECs' productivity growth for interstate access services -- using the Performance-Based Model that applies the correct TFP and input price differential methodologies -- the average X-Factor for the industry has been 7.3 percent over the period 1985-94. The long-term plan should provide strong incentives for the LECs to maintain productivity growth at that level. Accordingly, it is recommended that the lower X-Factor be set at 7.3 percent, plus the Consumer Productivity Dividend (CPD) of 0.5 percent (see pp. 35-36 infra). Thus, the lower option would be 7.8 percent, and a LEC selecting this option would be subject to the same sharing requirements that currently accompany the lowest X-Factor option established in the First Report and Order.²² The adoption of sharing requirements for the lower X-Factor is a necessary

²¹ The Commission should establish only two X-Factors, and not three, as was done in the First Report and Order. Experience has shown that the third, intermediate X-Factor is unnecessary: none of the LECs chose the 4.7 percent intermediate X-Factor for 1995-96. See Fourth Further Notice, ¶ 8.

²² See First Report and Order, 10 FCC Rcd. at 9058 (¶ 222).

part of the LEC price cap plan, so that LECs that are capable of achieving productivity growth greater than the industry average are not induced to choose a lower X-Factor.

The higher X-Factor option should be set one percentage point higher -- at 8.8 percent (which includes the CPD). This higher option should be exempt from the sharing requirement, in order to induce the LECs to select this option and to reward the LECs that exceed the industry average productivity growth.

The Fourth Further Notice (§ 110) also seeks comment on whether the selection of an X-Factor should be voluntary or assigned. The assignment of an X-Factor to individual LECs would involve a myriad of administrative burdens and does not appear to be feasible at this time. On the other hand, each LEC should be permitted to elect which of the two X-Factors is most appropriate to its own circumstances (provided the lower X-Factor option has sharing obligations, as discussed infra). Once a LEC chooses the higher X-Factor, however, it should not be permitted to select the lower one again until the next triennial performance review. If a LEC is permitted to switch back and forth each year between the two X-Factors, the LEC could take unfair advantage of the system in several ways. For example, a LEC could attempt to time the recognition of two years' worth of productivity gains in one year (when it has elected the higher X-Factor and is not subject to the sharing requirement), and then return to the lower X-

Factor in the following year. The Commission should prohibit such attempts to circumvent the objectives of the price cap incentive system.

2. The Commission should not adopt moving average X-Factors.

The Commission should also reject USTA's proposal to adopt moving average X-Factors for several reasons. First, by design, moving averages are likely to be consistently inaccurate for the year in which the average actually forms the basis for the X-Factor. As AT&T's Direct Model demonstrated, the X-Factor for the LECs has been increasing during the early 1990's. Under those circumstances, the moving average X-Factors will systematically understate a LEC's productivity growth. This is especially true in the case of the USTA proposal, which advocates a five-year moving average with a two-year time lag.

Therefore, the moving average system would only deprive ratepayers of some of the benefits of price cap regulation that they now enjoy, while conferring an unwarranted windfall on the LECs.²³ The Commission most certainly should gain experience

²³ Even if productivity growth were declining, a moving average would still produce perverse results. During a period of declining productivity growth, the X-Factor would become smaller, providing less and less challenging productivity targets for the LECs. Then, as soon as productivity began to increase, the X-Factor would be at its lowest point, thus permitting an unwarranted windfall for the LECs. Thus, the moving average procedure would consistently thwart the goals
(continued...)

with whatever new methodology it adopts to determine the X-Factor before it places the entire system on automatic pilot. For the present, continuation of fixed X-Factors, coupled with periodic performance reviews and revisions if necessary, provides the most effective way to monitor the LECs' productivity and to make the necessary changes to the price cap system. See Fourth Further Notice, ¶ 97.

Moreover, a moving average system would undercut the LECs' efficiency incentives. Under a moving average mechanism, each of the LECs might have an incentive to engage in inefficient investment and other cost-increasing tactics designed to reduce short-run productivity measures.²⁴ See Fourth Further Notice, ¶ 98. The Commission should therefore establish the proper incentives by setting a fixed X-Factor that is derived from historically achieved levels of productivity growth.

(...continued)

of price cap regulation: whenever the LECs actually achieve increasing levels of productivity growth, the moving average is guaranteed to eliminate or delay the rewards to ratepayers produced by those productivity gains. The Commission's present system does not do so and thus should be maintained in that regard.

²⁴ See, e.g., Critique of USTA's Modest Proposal for a New Price Cap Option by the Ad Hoc Telecommunications Users Committee, pp. 15-18, CC Docket No. 94-1, filed February 2, 1995 (ex parte).

D. The Commission Should Retain the Consumer Productivity Dividend.

Finally, the Commission should retain the Consumer Productivity Dividend (CPD) of 0.5 percent for two basic reasons. First, both the AT&T and the USTA TFP studies are based in part on data from the period preceding price cap regulation. Therefore, to the extent that these studies reflect productivity growth from the pre-price cap era, the Commission should retain a Consumer Productivity Dividend to account for the expected gains in productivity that price cap regulation is designed to achieve.

Second, the Consumer Productivity Dividend creates a realizable "stretch factor" for the LECs. As Dr. Norsworthy points out (App. B at pp. 29-30), the quantitative evidence indicates that the LECs can accommodate such a stretch factor. Because the existing X-Factor is generous to the LECs, they have remaining opportunities to achieve further efficiencies (*id.*). Moreover, there is reason to believe that the LECs should be able to increase productivity growth in the near future through technological advances and learning effects gained from added experience with new technologies. See Fourth Further Notice, ¶ 95. The LECs have installed considerable new technology in recent years. It is typical for an industry to learn to make more efficient use of such new technological developments over an extended period following adaptation. Therefore, an increase in the LECs' total factor productivity growth is to be expected in

the period between now and the next performance review (see App. B at pp. 29-30). The Commission should retain the Consumer Productivity Dividend for this reason as well.

II. THE COMMISSION SHOULD RETAIN THE SHARING REQUIREMENTS BUT SHOULD DISCONTINUE THE LOW-END ADJUSTMENT.

As the Commission notes in the Fourth Further Notice (§§ 112-116), the sharing mechanism of the present LEC price cap plan has served several important purposes. Sharing provides an incentive for each LEC to select the X-Factor that most accurately reflects its own productivity levels; it also provides a "backstop" mechanism if a LEC's chosen X-Factor turns out to be too low. The Commission seeks comment on whether the sharing and low-end adjustment mechanisms should be retained and, if so, how they should be designed. Fourth Further Notice, §§ 117-29 (Issues 5a-5f).

The sharing mechanism is an integral part of the LEC price cap scheme and should be retained for the reasons explained below. The low-end adjustment, however, has not served the purposes for which it was intended, and it should now be discontinued.

A. The Sharing Mechanism Should Be Retained As An Incentive For Each LEC To Choose An X-Factor Appropriate To Its Own Circumstances.

The sharing requirement should be retained for several reasons. First, the sharing mechanism is absolutely essential to ensure that a LEC voluntarily "matches" its X-Factor with its own economic circumstances (assuming the X-Factor is accurately measured). As the Commission properly observes in the Fourth Further Notice, "without some benefit associated with picking a higher X-Factor, a LEC would select the lower X-Factor regardless of its actual productivity rate." Fourth Further Notice, ¶ 113; see also First Report and Order, 10 FCC Rcd. at 9045, 9048-49 (¶¶ 186, 194). Therefore, as the Commission has recognized, multiple X-Factors would be of no value in the absence of meaningful sharing requirements that induce the LECs to pick the productivity measure appropriate for its economic circumstances.

The LECs' behavior following the First Report and Order has dramatically emphasized the validity of the Commission's observation. As noted above, five of the seven RBOCs, along with most of the GTE operating companies, and major independent exchange carriers, chose the highest X-Factor (5.3 percent) for 1995-96 in order to avoid sharing obligations. See Fourth Further Notice, ¶ 8. These actions confirm how powerful the sharing mechanism can be as an inducement for each LEC to act according to its own assessment of its potential productivity gains. As the Commission noted in the Fourth Further Notice,

"LECs that expect to achieve higher productivity and, consequently, higher earnings will have an incentive to choose a higher X-Factor in order to enjoy less restrictive sharing requirement and keep more of their earnings." *Id.* at ¶ 113.

Second, there is no merit to the argument that sharing should be completely eliminated merely because it "blunts," at the margin, the efficiency incentives of price cap regulation. *See id.* ¶ 114. A system of multiple X-Factors, coupled with sharing requirements for the lower X-Factors, would provide better overall incentives than a system without any sharing requirement at all.

Sharing should be eliminated only for the highest X-Factor, so that any LEC that can achieve the higher level of productivity will in fact choose that X-Factor. Such LECs would then have powerful incentives both to choose the correct X-Factor (to avoid sharing requirements) and to become as productive as possible (to achieve higher earnings levels). LECs that are not as productive need not and should not be rewarded with the prospect of unlimited profits at lower-than-average productivity growth. Sharing thus improves the overall incentive structure by providing an added incentive to move to the highest X-Factor whenever a LEC's circumstances permit.

In sum, it is recommended that the Commission retain the same sharing mechanism that presently exists for the lowest X-Factor. That is, if a LEC chooses the option of the 7.8 percent X-Factor, it would be subject to 50-50 sharing for a rate of return range of 12.25 to 13.25 percent, and 100 percent sharing would apply for rates of return above 13.25 percent.²⁵ The LECs choosing the higher X-Factor option (8.8 percent), however, would not be subject to any sharing requirement.

B. The Commission Should Discontinue The Low-End Adjustment.

The Commission should eliminate the low-end adjustment mechanism for two basic reasons. First, the low-end adjustment has proven unnecessary and has not fulfilled the purposes for which it was intended. The Commission stated, in the original price cap proceeding, that the low-end adjustment was necessary to avoid the negative effects of prolonged underearnings caused by various forces beyond the control of a LEC. Such forces included errors in measuring the productivity factor, inappropriate application of an industry-wide productivity factor to certain individual LECs, and local or regional economic recessions. See LEC Price Cap Order, 5 FCC Rcd. at 6804 (¶ 147).

²⁵ This assumes that the Commission's presently prescribed rate of return continues to be 11.25 percent. Should that prescription change, the sharing zones would change accordingly.

Actual experience with price caps, however, has shown that these concerns were unfounded. As the Commission has recognized, the productivity factor has been substantially understated in the LEC price cap formula. See First Report and Order, 10 FCC Rcd. at 9053 (¶ 208) (the "rapid rise in LEC earnings under price caps . . . suggests that the productivity factor used during the initial price caps period was too low."). Moreover, the record is devoid of evidence that any LEC has suffered low earnings caused by adverse economic conditions or other unique circumstances.

Second, the low-end adjustment mechanism has been misused by the few LECs that have invoked it. Most notably, NYNEX undertook a corporate "downsizing" in 1991, and included the expenses of this program in calculating its 1991 rate of return. This resulted in earnings below the 10.25 percent threshold. NYNEX then claimed a \$69 million low-end adjustment the following year to recoup that charge. Such use of this adjustment mechanism -- which was permitted by the Commission²⁶ -- would allow LECs to recover costs that are completely within their control, thus relieving them of business risk. Significantly, the low-end adjustment mechanism undermines the LECs' incentive to become more productive, which is the very purpose of price cap regulation.

²⁶ See, 1992 Annual Access Tariff Filings, 7 FCC Rcd. 4731, 4735 (1992).

Therefore, the low-end adjustment should be discontinued for all X-Factor options. Individual LECs would still have the ability to seek special relief in unusually adverse circumstances -- such as by seeking a waiver of the price cap rules or requesting a declaratory ruling in the event that an extraordinary occurrence results in prolonged underearnings that might threaten the LEC's ability to attract capital and provide service. Under the current price cap system, the Commission frequently entertains similar waiver requests without any apparent undue burden.²⁷

**III. THE COMMISSION SHOULD ADOPT A "PER-LINE" FORMULA FOR THE
COMMON LINE BASKET.**

In the First Report and Order, the Commission tentatively concluded, based on an overwhelming record, that a "per-line" formula for capping common line charges was "superior" to the current "Balanced 50/50" formula. First Report and Order, 10 FCC Rcd. at 9079 (¶ 271). The Commission should now formally adopt the "superior" formula.

The LECs' common line costs are not traffic-sensitive. Nonetheless, the Commission concluded in the original LEC Price Cap Order that the LECs had some ability to stimulate demand for

²⁷ See AT&T's Reply to Oppositions, CC Docket No. 94-1, filed July 12, 1995, p. 5 n.8.

common line use, as well as interexchange carriers.²⁸ Therefore, the Commission instituted the "Balanced 50/50" formula to "split the gains and losses in usage per line between the LECs and their customers in order to provide incentives for both to stimulate demand." First Report and Order, 10 FCC Rcd. at 9074 (¶ 258).

As the record in the recent LEC Price Cap Performance Review proceeding demonstrates, however, the premise that LECs can influence common line demand growth is both empirically and conceptually incorrect. The Commission explicitly found that "[t]he record does not support a finding that LECs have a significant effect on common line usage." First Report and Order, 10 FCC Rcd. at 9078 (¶ 266); see also id. at 9078 (¶¶ 267-68). Thus, the Commission found that "the per-line formula properly recognizes that loop costs are not traffic-sensitive," and tentatively concluded that "the per-line formula is superior to the per-minute and 50-50 formulas for the long term." Id. at 9079 (¶¶ 270-71).

In short, maintaining the "Balanced 50/50" formula both distorts the incentives inherent in the system of price cap regulation and provides an unwarranted windfall for the LECs.

²⁸ LEC Price Cap Order, 5 FCC Rcd. at 6794 (¶ 65).