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October 26, 1994

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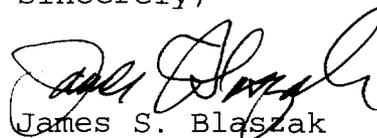
William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: **Ex Parte Contact in CC Docket No. 94-1**

Dear Secretary Caton:

On October 26, 1994, Dr. Lee Selwyn and the undersigned, on behalf of the Ad Hoc Telecommunications Users Committee discussed the above-referenced docket with personnel in the Tariff Division of the Common Carrier Bureau, legal advisors to Commissioners Ness and Chong, special assistant to Chairman Hundt and Deputy Bureau Chiefs of the Common Carrier Bureau. Attached hereto is a copy of materials which were distributed and discussed at these meetings.

Sincerely,


James S. Blaszk

JSB/jas
Enclosures
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STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

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Illinois Bell Telephone Company	:	
	:	
Petition to Regulate Rates and	:	92-0448
Charges of Noncompetitive	:	
Services Under An Alternative	:	
Form of Regulation.	:	
	:	
Citizens Utility Board	:	
-vs-	:	
Illinois Bell Telephone Company	:	
	:	
Complaint for an investigation	:	93-0239
and reduction of Illinois Bell	:	
Telephone Company's rates under	:	
Article IX of the Public	:	Consol.
Utilities Act.	:	
	:	

ORDER

October 11, 1994

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11. COMMISSION CONCLUSIONS

The Commission concludes that with respect to the establishment of a price regulation formula, it would be inappropriate to adopt the position of any party in its entirety. Each of the proposals regarding the price regulation formula has advantages and disadvantages. The Commission concludes that it will adopt a price regulation formula which selects various components on the basis of the most persuasive evidence presented in the record.

a. Staff & CUB Approach

Staff's price regulation recommendations have provided the Commission with valuable insights. Staff's analysis reflects a clear recognition that any plan for alternative regulation should offer specific advantages over traditional ROR regulation, and Staff's revenue needs analysis attempts to quantify the rate impacts which can be expected from a change to price regulation. Staff also recognizes that a considerable degree of judgment must be exercised by the Commission when establishing a price regulation formula.

However, the Commission has several significant concerns regarding the Staff's approach. First, Staff acknowledges that its approach departs from the methodology utilized for establishing price regulation plans in other jurisdictions. Although the Commission must exercise judgment in the development of an appropriate plan, we conclude that Staff's approach is too unstructured. Staff's reliance on an unspecified mix of the revenue needs analysis and a selection of results in other jurisdictions in order to determine a "judgmental X-factor", does not provide a stable methodology which can be reliably used for the development of price regulation plans in the future.

For example, there is no established economic theory which supports the establishment of a price regulation formula on the basis of a revenue needs analysis. While at first blush the approach may appear to offer greater precision in calculating an appropriate X-factor, that advantage is largely illusory. The revenue needs modeling approach relies on an analysis which is at least as complicated and as potentially contentious as traditional ROR regulation. It can be described fairly accurately as a traditional ROR analysis with a five-year projected test year period.

Furthermore, Staff has acknowledged that its modeling was highly dependent on Company-supplied data. The risks of the approach were dramatically demonstrated when Staff, which initially

recommended a 5% X-factor, revised its position on rebuttal in response to forecast changes. There is unanimous opinion among the expert witnesses in this proceeding that a price regulation formula should be based on standards established through the use of economy-wide or industry-wide data. Staff has not demonstrated how its reliance on Company projections and data would be reduced over time or how its approach would incorporate economy-wide or industry-wide standards. As a result, we do not believe that the revenue needs modeling approach, in its present stage of development, provides a sustainable methodology for establishing the specific parameters of a price regulation formula. Therefore, we will not address the various parties' arguments regarding the appropriateness of the numerous Staff assumptions. We thereby avoid having to grapple with the additional complexities of evaluating five-year forecasts in an environment of increasing change.

The Commission also notes Staff's reliance on the results of alternative regulation in California. The Company presented persuasive evidence that the California economy and the performance of telecommunications carriers in that State are unique, and should not form the basis for the selection of the X-factor.

The Commission also rejects the revenue needs analysis performed by CUB witness Dr. Kahn, particularly the assertion that a 6.01% X-factor is necessary to ensure that ratepayers will be no worse off under alternative regulation, and the Company will not obtain excess profits. CUB's analysis suffers from the same conceptual limitations previously discussed in connection with Staff's revenue needs analysis. More importantly, Dr. Kahn's analysis is premised on assumptions regarding revenue growth and revenue requirement levels that are not supported by the record, and which are rejected elsewhere in this Order. Therefore, the Commission concludes that CUB's quantitative analysis can be accorded little or no weight when determining an appropriate "X" adjustment or for determining whether consumers will benefit from adoption of this plan.

Particularly in the Commission's first implementation of price regulation, we believe that it is important to establish a price regulation formula which is reasonably consistent with established economic theory. By doing so, we can assure ourselves that the plan we adopt can incorporate more readily any further developments in that theory, and the results from price regulation in other jurisdictions can, when appropriate, be used as a frame of reference for the analysis of results in Illinois, and for the identification of any emerging or potential problem areas.

Our conclusion does not mean that we believe that the Staff's approach is totally without value. On the contrary, because the Staff's revenue needs modeling approach is so consistent with traditional regulatory analyses, it provides a particularly insightful check upon the reasonableness of the price regulation formula we adopt.

b. Measure of Economy-wide Inflation

With respect to the selection of a measure of economy-wide inflation, we conclude that use of the GDPPI is preferable to the Staff's recommended use of the GDP Implicit Price Deflator. Although Staff has asserted that use of the GDP Implicit Price Deflator would represent an improvement over the widely prevalent existing approach, we are not persuaded. We note that the FCC specifically has rejected the use of this index; its progenitor, the U.S. Commerce Department, explicitly cautions against its use as a measure of inflation; and that Dr. Selwyn and Dr. Christensen, both nationally recognized experts on price regulation, advocate use of the GDPPI. The FCC pointed out that the Implicit Price Deflator cannot be used to measure price changes on a period-to-period basis, since changes in the quarterly composition of GDP can affect the Deflator even if there were no changes in prices. If, for example, the price of a good remains stable, but the quantity increases, the GDPPI would remain constant and the Deflator would show the change as inflation. The GDPPI divides current prices times base period demand by base prices times base period demand; the Deflator simply divides total current GDP by total prior period GDP.

Staff witness TerKeurst identified a potential period-to-period comparability problem associated with use of GDPPI and suggested that if the Commission elects to use GDPPI, the Company be required to include in its annual price regulation filing an identification and reconciliation of any periodic updates to the GDPPI weights. We agree that this suggestion is reasonable and it is adopted.

c. Input Prices in Price Regulation Formula

The uncontroverted evidence in this proceeding is that input prices for Illinois Bell have lagged significantly behind the GDPPI. Dr. Christensen confirmed Dr. Roddy's calculation that the GDPPI grew at 3.7% per year during 1984-1991, while IBT's input prices grew at the GDPPI minus 1.6%. This implies that IBT's input prices grew at a rate 2.5% slower than economy-wide input prices. What is at dispute is whether that differential will continue into the future.

Illinois Bell suggests that this price experience is only a temporary anomaly, which will not continue into the future as a result of tax law changes, increases in interest rates, and an end to differential growth in wages paid to its employees compared to wage growth nationally. The Company contends that the GDPPI therefore remains an appropriate measure of Illinois Bell's expected input price growth in the future.

The AG argues that structural changes resulting from the AT&T divestiture and price trends for new telecommunications equipment support the conclusion that IBT's input price differential would be permanent. In any event, the AG suggests that input prices, similar to productivity, must be historically based and to try to adjust for possible future changes is inappropriate.

The Commission agrees with the AG that there should be an input price adjustment to the GDPPI. The Commission is cognizant of the importance of this issue. Underestimating the differential between the GDPPI and IBT's inputs would harm the ratepayers. As Dr. Roddy testified, not recognizing the differential between the GDPPI and IBT's input prices could lead to charging consumers excessive rates.

Although the GDPPI may ultimately prove to predict IBT input price growth accurately over an extended period of time, we do not believe that a particularly long-term view, such as the three decades measured in Dr. Christensen's pre-divestiture Bell System study is appropriate for our use. It is our hope that price regulation will be superseded by competitive market forces significantly sooner than in thirty years. Since Article XIII of the Act sunsets in 1999, a five-year time frame is sufficient for establishing the appropriate parameters of a price regulation formula.

We are also unpersuaded that Dr. Christensen's post-divestiture analysis provides a sufficiently accurate basis for the conclusion that the unadjusted GDPPI is likely to reflect adequately the input price experience of Illinois Bell or the telecommunications industry in general over the next five years. It is always possible to isolate various cost categories or historical events selectively and to contend that past overall cost trends will not continue into the future. The validity of those assertions is best tested after verifying that expected price trends in all factors of production have been analyzed. It is apparent that Dr. Christensen has not conducted such a comprehensive analysis. Therefore, we agree with the AG that an explicit adjustment should be made to the GDPPI to reflect the divergence between economy-wide input price growth and the actual IBT input price experience.

However, we do not believe that it is reasonable to project that the full amount of the historical post-divestiture input price divergence will continue into the future. The propriety of some adjustment, at a minimum, to reflect the impact of known tax law changes on the telecommunications industry is supported by the record. We will adopt Dr. Christensen's calculation of a 0.5% impact from the tax law change, which was largely unrebutted in this proceeding.

Having made what we believe to be a reasonable adjustment to reflect Dr. Christensen's analysis, we reject Illinois Bell's suggestion that the remaining input price differential of 2.0% be halved, since the proposal is largely unsupported by any persuasive substantive rationale other than that of simply raw compromise. We also reject the Company's suggestion that its actual price experience be revisited in three years. The Company's own witness, Dr. Christensen, testified on rebuttal that it would be inappropriate to update the price index formula based on Illinois Bell's performance with respect to TFP and input price growth, because to do so would undermine the incentive structure that provides the primary rationale for adoption of the Alternative Regulatory Plan. We concur with this assessment. In addition, revisiting the issue in three years necessarily would invite reconsideration of numerous other issues which should be resolved with a greater degree of finality and certainty through this Order. We have no desire to invite frequent and lengthy proceedings, the avoidance of which is one of the purported advantages of price regulation. We conclude that an appropriate estimate of input price growth for the purpose of establishing a price regulation formula for Illinois Bell is the GDPPI minus 2.0%.

d. Productivity Factor in Price Regulation Formula

We further conclude that Dr. Christensen's calculation of Illinois Bell's differential TFP of 1.3% is appropriate for use as a measure of productivity in the price regulation formula. This is correct since we already have concluded that the historical input price differential should be measured as the full difference between IBT input price growth of 2.1% and the economy-wide input price growth rate of 4.6%, as adjusted by 0.5% for the tax effect explained above. This approach is also consistent with the methodology employed by the FCC and other jurisdictions which use differential productivity growth rates. The telephone industry has experienced lower input price growth and higher productivity growth than the economy as a whole, and this has been reflected in lower output price growth by the telephone industry. Our adoption of a price regulation formula which establishes an output price index for Illinois Bell that is essentially reflective of the

historical differentials between economy-wide and Illinois Bell input prices and productivity mirrors this phenomenon.

e. Depreciation Reserve Deficiency Adjustment

In this Order we have determined a just and reasonable level of rates for Illinois Bell. This was done for two reasons. First, to evaluate CUB's rate reduction complaint; and second, to determine appropriate rates for the initial year of the alternative regulation plan. When we determined just and reasonable rates, we adopted a reasonable treatment of the depreciation reserve deficiency. The Commission therefore rejects Illinois Bell's proposal to incorporate in the price cap formula any adjustment or allowance for a depreciation reserve deficiency. Since the Commission is not adopting Illinois Bell's view of its revenue requirement shortfall or its reserve deficiency, the adjustment proposed by Illinois Bell is not appropriate.

f. Consumer Productivity Dividend

Section 13-506.1 of the Act requires that an alternative plan of regulation identify specifically: how ratepayers will benefit from any efficiency gains; cost savings arising out of the regulatory change; and improvements in productivity due to technological change. We are persuaded that the adoption of an additional increment to the price regulation formula is the most direct and appropriate way to achieve these goals. Acceptance of Illinois Bell's argument that a continuation of historical productivity performance would provide sufficient ratepayer benefits is inconsistent with the notion that a change in the form of regulation would enhance efficiency incentives. By including a stretch factor or consumer productivity dividend component in the price cap formula, we ensure that ratepayers will receive the first cut from any improvements beyond historical performance which arise from technological and regulatory change.

The evidence in the record indicates that the selection of an appropriate consumer dividend is largely judgmental. The Commission believes that the specific consumer dividend figure to be selected is dependent on the overall alternative regulation plan. As will be discussed below, we will not include an earnings sharing component in the plan. Therefore, the selection of an appropriate consumer dividend becomes paramount because the X-factor chosen becomes an important consumer benefit arising from alternative regulation. With this in mind, the Commission agrees with Dr. Selwyn's recommended 1% consumer dividend.

g. Summary and Additional Rationale

To summarize, the Commission will adopt a price regulation formula equal to the GDPPI minus 2.0% (input price differential) minus 1.3% (productivity differential) minus 1.0% (consumer productivity dividend). The sum of the input price, productivity, and consumer dividend provisions can be referred to as the total offset (to GDPPI). The price regulation formula we will adopt can be restated as the GDPPI minus 4.3%.

As discussed above, several parties, including Staff, CUB and IBT provided present value revenue requirements (PVRR) studies comparing traditional ROR regulation to alternative regulation under various scenarios. The Commission has rejected the use of these studies as an appropriate basis for establishing the X-factor in the price regulation formula. It is unnecessary, and would be highly misleading, to attempt to reconcile the PVRR studies with the methodology the Commission has adopted. The Commission's incorporation into the price regulation formula of a consumer productivity dividend is one of many conceptual differences between the two approaches.

Nevertheless, the results of Staff's revenue needs analysis corroborates the overall reasonableness of the Commission's price regulation formula. We note that Staff, unlike CUB and IBT, utilized revenue requirement assumptions which are close to those ultimately adopted by the Commission. In addition, the growth assumptions utilized by Staff are at least plausible. The Staff analysis, and recommendation of a 4.1 X-factor, therefore provides additional corroborative support for our conclusion that a price regulation formula incorporating a 4.3 X-factor will yield just and reasonable rates.

An additional fact that supports the overall reasonableness of the formula is that the FCC permits LECs to choose between a 3.3% and a 4.3% offset to the GDPPI. The 4.3% total offset we adopt is within the range. Many of the parties pointed to the FCC's price regulation formula in support of their specific recommendations regarding a total offset. There is no evidence in the record which would lead us to conclude that the FCC's price cap formula is theoretically deficient or leads to unreasonable results, particularly with respect to excessive prices or earnings. Furthermore, despite the parties' repeated references to the FCC formula, IBT has not raised any argument to rebut the essential fairness of the FCC's formula. In other words, there is no persuasive evidence in the record that IBT's actual input price and productivity experience and/or its prospective economic and financial situation is so unique that it must be viewed as an

"outlier" to which application of the FCC formula, which is based on nationwide standards, has been or would be inappropriate.

Finally, the most current WEFA Group projections for the GDPPI reflected in the record are as follows:

1994	3.50%
1995	3.50%
1996	3.50%
1997	3.40%
1998	3.50%
1999	3.70%

If these GDPPI projections prove to be accurate, the price regulation formula we have adopted will yield an annual decrease in Illinois Bell's noncompetitive rates. This is something which ROR regulation would be unlikely to accomplish because of the inherent upward rate bias associated with the fact that a utility ordinarily initiates its own general rate filings, and will do so only when it believes that some level of upward repricing can be justified readily.

We wish to emphasize that by making this comparison we are not suggesting that a price regulation formula is reasonable only if it leads to price decreases, or that regulators should adjust a price regulation formula in light of inflation projections to ensure that it will achieve price changes in the direction and of a magnitude deemed to be desirable. Our point is merely that the price changes we can expect from the formula over the next five years are not inherently unreasonable. This contrasts with the Company's original proposal for a 0.7% total offset to the GDPPI which presumably would have led to rate increases every year, absent significant deflation; a result difficult to reconcile with our determination herein of just and reasonable rates using the traditional ROR regulation analysis. Under traditional ROR regulation, once rates are established they can reasonably be expected to remain in effect for several years. Under Illinois Bell's original proposal, the rate reduction we have ordered would be overtaken quickly by rate increases through the operation of the price regulation formula. Therefore, replacing traditional ROR regulation with a formula that would provide the Company with almost automatic annual rate increases would not offer the ratepayer any readily apparent advantage.

D. Earnings Sharing

One of the most contentious issues in this proceeding has been the concept of "sharing", under which a portion of the company's earnings would be redistributed to ratepayers.

**CC Docket 94-1
Price Cap Performance Review**

**CAPTURING LEC PRODUCTIVITY GROWTH
AND RELEVANT INPUT PRICE EXPERIENCE
IN THE PRICE ADJUSTMENT MECHANISM**

Ad Hoc Telecommunications Users Committee

October 26, 1994

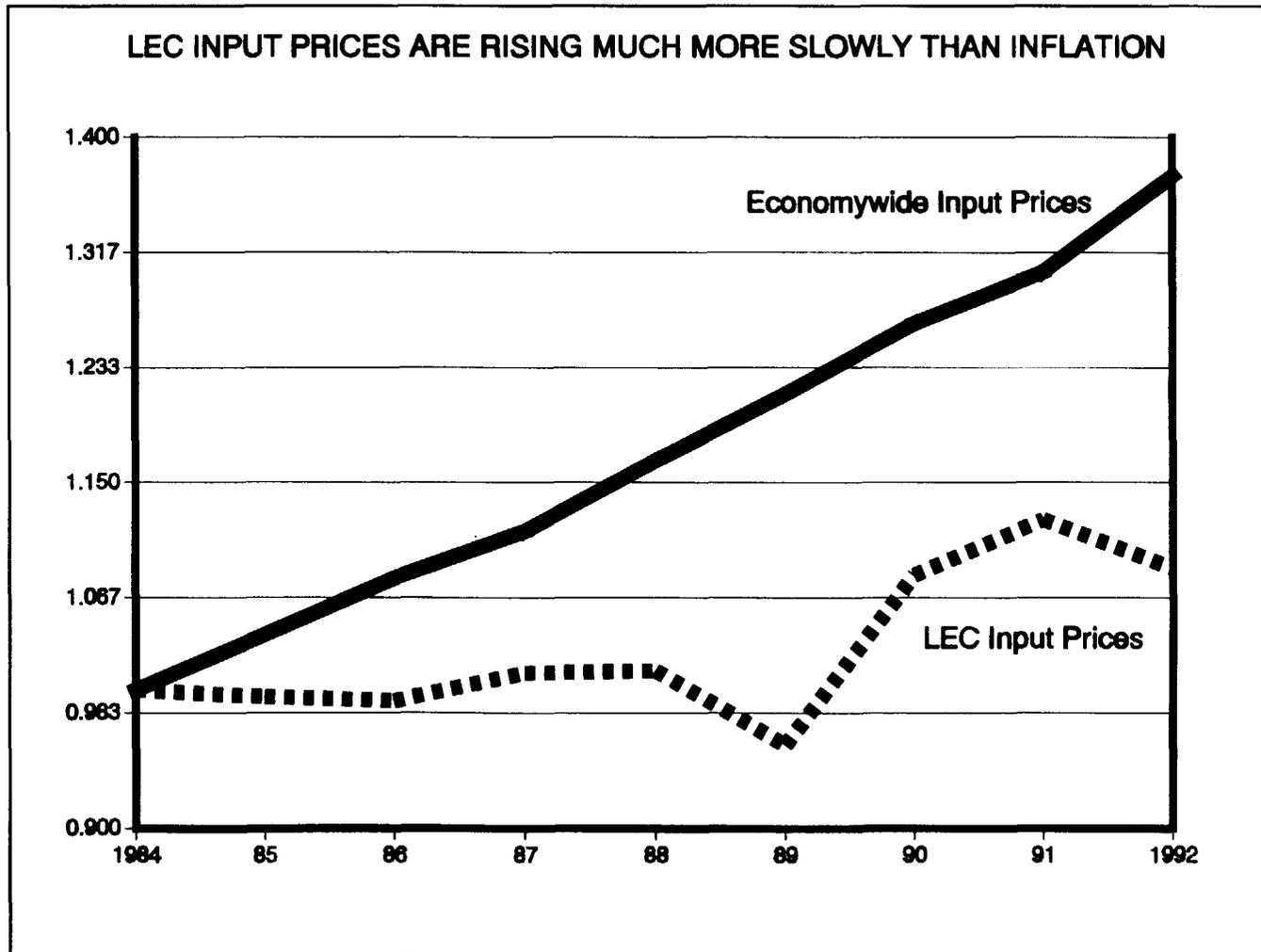
The basic function of a price cap plan is to reflect, to the greatest extent possible, competitive market conditions.

The basic function of the "X factor" in the price cap formula is to capture and reflect the "competitive result" of normal industry-wide cost conditions.

The principal drivers affecting LEC industry costs are

- **Economy-wide inflation rates, reflected in the GDP-PI;**
- **Productivity growth within the LEC sector;**
- **Productivity growth within principal LEC supplier sectors that are flowed through to LECs in the prices LECs pay for their inputs; and**
- **Salutary effects of incentive regulation on overall LEC efficiency**

LEC input prices have risen far more slowly than economy-wide inflation rates



The slow rate of LEC input price growth is the result of

- **Substantial competition in the provision of LEC inputs, particularly capital equipment and other capital assets**
- **Accelerating rate of technological innovation in the telecommunications equipment sector, pushing prices down and capabilities/capacities up**
- **Capital-intensiveness of LECs**
- **Low interest rates**
- **Moderate growth in LEC wages due to rapidly declining LEC demand for labor**

USTA claims that over the long term (i.e., since 1948), LEC input prices have grown at the same rate as economy-wide input prices.

- **Pre-divestiture LEC input price experience cannot capture current market conditions**
- **Post-divestiture BOCs are not engaged in the same business as the pre-divestiture Bell System**
 - **CPE rentals, which represented in the range of 20% or more of pre-divestiture Bell revenues, are no longer offered**
 - **InterLATA long distance services which, exclusive of access charges, represented at least 10% of pre-divestiture Bell revenues, are no longer offered**
- **And, most importantly, the vertical integration of the pre-divestiture Bell System no longer exists**

Pre-divestiture LEC input price experience cannot capture current market conditions

- **Due to vertical integration of Western Electric with Bell Operating Companies, the nature and mix of pre-divestiture "inputs" was dramatically different than now, making pre-divestiture input price experience entirely irrelevant for present and future conditions.**
- **There was minimal or no competition in the provision of equipment and most materials to the pre-divestiture Bell System Operating Companies.**
 - **Pre-divestiture Bell System companies purchased virtually all CPE, central office switches and other equipment, wire and cable, transmission systems, and most materials and supplies, from their "manufacturing and supply" affiliate — Western Electric Company**
 - **WECO faced no competitive pressures to innovate or to improve its overall productivity; intense competition in today's telecom equipment market forces incumbents to pursue both technology and productivity, and to flow through gains directly to their customers.**

USTA seeks to "cherry-pick" its way through fundamentally conflicting positions of its own experts

- **Taylor asserts that LEC input price movements are not "statistically different" from economy-wide input price changes, which he contends are growing at the rate of GDP-PI + 0.3%, i.e., 4% annually since 1984.**
 - **Taylor bases his claim on the use of long-term, mostly pre-divestiture input price experience for the period 1948-1979**
 - **But he also contends that growth in post-divestiture (1984-92) input prices are not statistically different from economy-wide price movements**
- **Christensen, however, studied LEC Total Factor Productivity (TFP) for the post-divestiture period (1984-92) and in that study employs post-divestiture LEC input price data showing LEC input price growth for the period at an annual rate of 2.6% less than GDP-PI, the very same data that Taylor rejects as anomalous!**

USTA relies on Christensen's TFP growth rate estimate (2.6%) but jumps over to Taylor's position when it comes to LEC input prices

Christensen:

LEC Productivity grew at least 2.6% per year for 1984-1992.

Productivity growth is best measured by Total Factor Productivity ("TFP").

TFP growth rate = output quantity growth rate – input quantity growth rate

Based on the Christensen May 1994 Study for 1984-1992 period

LEC output quantity grew at 3.5%

LEC input quantity grew at 0.9%

Therefore, LEC TFP annual growth rate = 2.6%.

Christensen's TFP using Taylor's input price theory:

The GDP-PI minus 2.6% input price component is integrally related to the 1.1% input price growth rate and the 0.9% input quantity growth rate used in the Christensen May, 1994 study.

The integral relationship between input price and input quantity is a known economic fact in the context of TFP studies. If one changes, the other must also change.

- Thus if USTA wants now to discredit Christensen's input price measure, the result would be a direct and immediate change in the measure of TFP.**
- Our analysis shows that changing the input price growth rate to USTA's claimed value, and then recalculating TFP using Christensen's process, leads to essentially the same X Factor as under the Ad Hoc formulation.**

Christensen's TFP using Taylor's input price theory:

While the lack of all input data used by Christensen precludes a complete replication of his process, a rough calculation illustrates this point.

Because USTA did not supply the input expenditure data that Christensen utilized, it was first necessary for us to extrapolate this value from the data that was supplied

- Christensen had calculated that total LEC input quantity increased at a rate of 0.9% by, in effect, subtracting the rate of change in input prices from the rate of change in dollar expenditures on inputs.**

On that basis, and using his input price growth rate of 1.1%, total dollar expenditures on inputs must have increased at an annual rate of 2.0%.

Christensen's TFP using Taylor's input price theory:

Suppose USTA replaces Christensen's 1.1% input price growth rate with Taylor's claimed 4.0% input price growth rate. Since the growth in total dollar expenditure on inputs was 2.0%, input quantity must have decreased at a rate of 2.0% (i.e., 2.0% growth in expenditures minus 4.0% increase in input prices).

Christensen study:

Input quantity growth = 2.0% expenditure growth – 1.1% input price growth = 0.9%

Christensen study revised per Taylor input price growth:

Input quantity growth = 2.0% expenditure growth – 4.0% input price growth = –2.0%

TFP would then be calculated as output quantity growth of 3.5% minus the input quantity growth of –2.0%, resulting in a TFP growth rate of 5.5%.

- This calculation can be readily confirmed by the Commission were it to obtain from USTA all data necessary to replicate Christensen's analysis**