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ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company)	
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Filing to increase Unbundled Loop and Nonrecurring Rates)	02-0864
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**SUMMARIES OF POSITION SUBMITTED BY
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I. INTRODUCTION AND SUMMARY OF POSITION

In Section I of their Reply Brief, Joint CLECs summarized the following major points of their position in this case:

- SBC Illinois has not demonstrated that its current unbundled network element (“UNE”) loop rates and related nonrecurring charges need to be increased. Under the FCC’s rules, as well as the Public Utilities Act (“PUA”), SBC has the burden of proof on all issues, including the burden to show that its proposed rates satisfy the FCC’s TELRIC standards. (47 C.F.R. §51.505(e); 220 ILCS 5/9-201(c)). The record shows that SBC has not met that burden. If anything, the record shows that SBC’s UNE loop rates should be reduced. Joint CLECs stated that this is not surprising given the decreases in telecommunications costs generally and SBC’s costs specifically (including productivity-driven cost reductions, lower interest rates and costs of capital, and cost savings and efficiencies resulting from the SBC-Ameritech merger) that have occurred since its TELRIC rates were first set.
- This case must be decided based on TELRIC rate-setting principles, not on traditional embedded cost ratemaking principles. SBC’s complaints that its UNE loop rates do not recover its embedded costs are both erroneous and irrelevant. There is nothing in the FCC’s TELRIC rules that requires that UNE rates be set so as to recover embedded costs. To the contrary, the FCC’s rules expressly prohibit taking embedded costs into account in setting TELRIC-based UNE rates. (47 C.F.R. §51.505(d)(1)).
- SBC’s assertions that the purportedly low level of its UNE loop rates is discouraging investment by CLECs are inaccurate and inapposite. This case is primarily about the rates CLECs pay SBC to lease unbundled local loops, especially loops used to serve mass market customers. There are no economic or public policy considerations that favor having CLECs duplicate SBC’s network by building their own loops to serve mass market customers. SBC’s use of UNE-P prices to attempt to show that its UNE-L prices are too low are similarly inapposite and misleading.
- The loop costing model, “LoopCAT”, that SBC has used to produce its proposed loop costs in this case, is fundamentally flawed and is not capable of reliably and accurately estimating the costs of a new, efficient, forward-looking network (based on SBC’s existing wire center and customer locations) as required by the FCC’s TELRIC rules. One option available to the Commission in this case is to reject SBC’s proposed loop costs, use the TELRIC loop costs developed in the TELRIC I proceeding¹, and adjust SBC’s current loop prices based solely on application of a revised Shared and Common Cost Factor developed in this case.

¹Illinois Commerce Commission On Its Own Motion, Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic, Dockets 96-0486 & 96-0569 (Cons.), Second Interim Order, issued Feb. 17, 1998 (“TELRIC I Order”).

- Alternatively, should the Commission conclude that it wants to base the UNE loop rates set in this case on SBC's current loop cost model, the Commission should adopt the revised costs presented by the Joint CLECs or, in the alternative, direct SBC to re-run its LoopCAT studies with the numerous modifications and revisions recommended by the witnesses for the Joint CLECs, Staff and the Attorney General.
- SBC has utterly failed to demonstrate that its current network capacity is representative of what would be found in an efficient, forward-looking network using the most efficient new telecommunications technology available, nor that its current, actual fill factors satisfy the FCC's TELRIC standards. The Commission should reject SBC's proposal to use its current actual fill factors to set TELRIC-based UNE prices in this case. The Commission should also reject Staff witness Dr. Liu's proposed fill factors, which despite their theoretical gloss represent nothing more than a modest and arbitrary upward adjustment to SBC's current actual fill factors. Rather, the Commission should utilize the fill factors presented by the Joint CLECs in this case.
- SBC has also utterly failed to demonstrate that the Commission should adopt, as the depreciation lives for setting TELRIC-based rates, the asset lives that SBC uses to calculate depreciation for financial reporting purposes. As it did in the TELRIC I Order, the Commission should continue to use SBC Illinois' FCC-prescribed depreciation lives for this purpose, as virtually every other state commission has done.
- SBC's proposed cost of capital is excessive, among other reasons because it is based on a five-year old study that falls far short of reflecting current capital market conditions. SBC's proposed cost of capital also includes an excessive amount of equity in the capital structure and fails to include any short-term debt, even though short-term debt is a prominent part of SBC's actual capital structure. The Commission should adopt the cost of capital developed by AT&T/MCI witness Terry Murray.
- SBC's proposed nonrecurring costs and nonrecurring charges ("NRCs") are seriously inflated. A principal problem with SBC's proposed NRCs is the inclusion of costs that should be recovered through recurring monthly charges. The Commission must carefully review SBC's NRCs and the cost support for them, including the allocation of costs between recurring charges and non-recurring charges, because excessive NRCs can be just as detrimental to competition as excessive recurring charges, if not more so. The Commission should adopt the adjustments to SBC's nonrecurring cost studies proposed by witnesses for the Joint CLECs.
- The "fully-loaded" labor rates used in SBC's cost studies are excessive because they do not reflect the market costs that would be incurred by the owner of a new forward-looking network in a competitive market. The Commission should direct SBC to revise the loaded labor rates used in its studies by making the adjustments recommended by AT&T witness Robert Flappan.

- As both Staff and Joint CLEC witnesses have demonstrated, SBC's proposed Shared and Common Costs Factor is seriously overstated, by a factor of two to three times. SBC is seeking to recover a number of inappropriate cost items in its Shared and Common Costs. The Commission should adopt the revisions to SBC's Shared and Common Costs that Staff and Joint CLEC witnesses have proposed.
- SBC's proposed Annual Charge Factors, Investment Factors, Support Asset Factors and Inflation/Deflation Factors should be revised in accordance with the recommendations of Staff and Joint CLEC witnesses.
- Any wholesale rates set by the Commission in this case must satisfy the imputation test required by Section 13-505.1 of the PUA (220 ILCS 5/13-505.1) and 83 Ill. Adm. Code Part 792. SBC's proposed rates fail the imputation test with respect to its retail business rates and would fail an imputation test for its residential rates as well.

Joint CLECs recommended that the Commission adopt in total the rates proposed by their witnesses (for recurring costs, either the proposed rates presented by Messrs. Pitkin and Turner or those proposed by Messrs. Starkey and Balke, who recommend maintaining the present loop TELRIC with the new Joint CLEC-proposed shared and common cost markup; and, for nonrecurring costs, either the proposal of Mr. Turner or the proposal of Dr. Ankum and Mr. Morrison) and that SBC be directed to substitute those rates in the appropriate places of its tariff. Joint CLECs also stated that if the Commission does not adopt outright the Joint CLECs' proposed rates and directs, instead, that SBC's cost studies should be rerun using Commission-specified inputs (based on the Commission's resolution of the many contested issues in this case), then the Commission should direct SBC, CLECs and Staff to rerun the costs studies and reach consensus about what the resulting rates are, with any disputes being brought back before the Commission for resolution within 45 days. In the interim, SBC Illinois' existing approved rates should remain in effect.

II. GENERAL ISSUES

A. Legal Requirements For Setting UNE Rates

Joint CLECs stated in their Initial and Reply Briefs that they provided discussions of the legal requirements for setting SBC Illinois' unbundled network element rates applicable to each of the rates or cost components thereof in the individual sections of those briefs, as appropriate. Joint CLECs emphasized one overriding principle that they urged the Commission to keep in mind with respect to all issues, namely, that SBC Illinois has the burden of proof on all issues to demonstrate that its proposed rates and the underlying cost-support are TELRIC-compliant. Joint CLECs noted that the FCC's TELRIC rules require that "An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and §51.511." (47 C.F.R. §51.505(e)) A second common theme that recurred throughout the Joint CLECs' arguments in their briefs was that the FCC's TELRIC methodology requires that UNE rates be set based on the costs of an efficient, forward-looking network using the most efficient telecommunications technology available today, not on the basis of SBC Illinois' actual, embedded costs and practices.

B. Economic/Policy Issues Associated With UNE Pricing (Including Benchmarking Analyses and Trends in Telecommunications Costs)

It is Joint CLECs' position that SBC Illinois' existing UNE rates are *supra*-compensatory when judged under the appropriate cost standard, forward looking economic costs. Joint CLECs noted that SBC's testimony attempting to justify its proposed rates suffered from the fatal defect of relying on embedded cost comparisons. Joint CLECs stated that embedded cost is an entirely improper and irrelevant standard that, even if applied properly, would not produce meaningful results. Joint CLECs further argued that SBC witness Dr. Aron's analysis is thoroughly flawed. Further, Dr. Aron's underlying policy prescription which would favor high UNE rates and duplicative investment, even where uneconomic, would be inefficient, contrary to Illinois law, and would force SBC to increase its retail rates as well as the rates of its competitors. While Joint CLECs believe that Dr. Aron's testimony is largely irrelevant to the issues to be decided in this docket, Joint CLECs submitted the testimony of AT&T witness Dr. Lee Selwyn to respond to Dr. Aron's testimony. Joint CLEC witnesses Mr. Starkey and Mr. Balke also responded to Dr. Aron's testimony that SBC Illinois' loop rates are lower than those found elsewhere in the country. (Joint CLEC Ex. 2.0, pp. 12-17) However, Joint CLECs' overall recommendation is that the Commission focus its attention on the cost testimony of each party.

Joint CLECs noted that Dr. Aron's principal claim is that "...the current prices for SBC Illinois' unbundled network elements have been set at uneconomically low levels." (SBC Ex. 2.0, p. 4) According to Dr. Aron, current UNE prices do not permit SBC Illinois the opportunity to recover its ongoing costs of providing UNEs because: 1) SBC's existing UNE-L and UNE-P prices are among the lowest in the nation; and 2) SBC's UNE margins are significantly negative. (SBC Ex. 2.0, p. 5) Joint CLECs noted that the first observation says nothing about whether the Illinois rates are compensatory; they note that SBC itself has argued elsewhere that UNE rates could be lower in states that are so much more dense than others, and cited Illinois as a state where relatively low rates should be expected. Joint CLECs stated that the relevant standard for judging Illinois' UNE rates are Illinois' TELRIC costs, rather than comparisons to UNE rates in other, mostly dissimilar states. (AT&T Ex. 1.0, pp. 7-8) Further, Joint CLEC witnesses Starkey and Balke responded to Dr. Aron's contention that SBC Illinois' loop rates are substantially lower than those found in other parts of the country by observing that there are "myriad factors that impact costs specific to unbundled loops," most of which are highly dependent upon the geographic location, and density characteristics, of the network in question and the size and scale economies of the carrier in question. (Joint CLEC Ex. 2.0, pp. 12-13) Messrs. Starkey and Balke found that when they segmented Dr. Aron's chart of loop rates into states with below average population density, states of average density, and states with highly concentrated population centers, that loop prices fall when moving along the scale to higher population density, fewer geographic impairments, and larger serving carriers. (*Id.*, pp. 14-15)

Joint CLECs argued that Dr. Aron's second claim, that existing UNE rates produce a significantly negative margin, is founded on a baseless and faulty analysis. They stated that the only proper measure of whether a particular UNE price is economic and compensatory is through comparison to its forward-looking economic cost. This principle is embodied in federal TELRIC rules, is a long-standing tenet of Illinois costing rules (the Part 791 LRSIC standard), and has been affirmed by the U. S. Supreme Court in *Verizon Comms., Inc. v. FCC*, 535 U.S. 467 (2002). Joint CLECs pointed out that Dr. Aron's use of embedded costs and a rate-of-return based

analysis to support her claim that SBC's UNE rates are below cost was contrary to the established principle that forward-looking costs are to be used. (AT&T Ex. 1.0, pp. 8-9) Joint CLECs argued that SBC's backward-looking, embedded costs should never be used to judge the reasonableness of UNE rates, because historic costs do not provide the appropriate price signals to either SBC or an entrant because they reflect past circumstances that cannot be altered. In addition, SBC's past costs include a variety of costs unrelated to UNE-activities, some the result of inefficiencies and others due to business decisions and investment initiatives having nothing to do with SBC's wholesale obligations. (AT&T Ex. 1.0, pp. 9-10) Joint CLECs stated that Dr. Aron's embedded analyses are useless for judging the reasonableness of SBC's UNE rates.

Joint CLECs criticized the two embedded cost analyses of SBC Illinois data presented by Dr. Aron to show that SBC Illinois' UNE rates are below cost. The first analysis was based on embedded cost data filed with the FCC related to interstate switched access service (the "Switched Access Cost Study"), while the second analysis purported to determine whether UNEs provide SBC with adequate cash (the "Cash Flow" Analysis). Joint CLECs stated that neither of these analyses is useful to determine whether UNE loop rates are compensatory, even on an embedded cost/rate of return basis. Joint CLECs noted that Dr. Aron's first analysis compares the average revenue for a UNE-L and UNE-P line (assuming existing UNE rates) to what she claims is the "book cost" of UNE-L and UNE-P developed from FCC ARMIS reports. However, AT&T witness Dr. Selwyn testified that the ARMIS data reflects legacy cost-allocation rules (Parts 36 and 69), from the days when interstate carrier access service was regulated by rate-of-return. (AT&T Ex. 1.0, p. 11) Joint CLECs argued that by using these legacy cost allocations as her starting point, Dr. Aron introduced into her analysis all of the flaws and deficiencies associated with rate-of-return regulation, which Congress has rejected for setting UNE rates and SBC itself has rejected for setting its Illinois retail rates. Joint CLECs noted that the Supreme Court in *Verizon v. FCC* stated that the federal Act explicitly disavowed rate of return regulation in favor of a method intended to give new entrants "every possible incentive to enter local retail telephone markets". (535 U.S. at 489) Joint CLECs pointed out that the FCC's Part 36/69 rules, on which the ARMIS data used by Dr. Aron are based, are the type of public-utility model of rate regulation that the federal Act explicitly disavows. Further, not even the FCC uses the Part 36/69 rules anymore for the purpose for which they were originally intended. Therefore, Joint CLECs argued, data based on these rules cannot reasonably be used to reliably estimate the cost of individual network elements.

Additionally, Joint CLECs noted that because the Parts 36 and 69 cost allocation rules do not estimate the book cost of network elements, Dr. Aron performed a variety of "adjustments" to develop her estimates. Joint CLECs identified numerous flaws with these adjustments, including underestimates of the numbers of competitive lines (thereby overstating the cost per line), underestimates of the amount of booked costs that should be allocated to retail, failure to allocate any investment to non-UNE activities, overstatement of SBC's actual depreciation expense, and inclusion of inflated "wholesale marketing" costs. (AT&T Ex. 1.0, pp. 14-17) However, AT&T witness Dr. Selwyn testified that even correcting these errors would not salvage Dr. Aron's analysis. (*Id.*, p. 17) Joint CLECs concluded that Dr. Aron's "Switched Access Cost Study" is fundamentally flawed and should be rejected in its entirety.

Turning to Dr. Aron's "cash flow analysis", Joint CLECs noted that Dr. Aron claims that existing UNEs are priced below cost because they do not produce sufficient cash to (1) offset

SBC Illinois' operating expense (as assigned by Dr. Aron to UNEs) and (2) extract from CLECs the cash to fund SBC Illinois' capital expenditures for 2001. They argued that as to the first of these components (Dr. Aron's estimate of the "booked operating cost" of UNEs), the Cash Flow Analysis was built upon the same errors they identified in her "Switched Access Cost Study". (AT&T Ex. 1.0, pp. 17-18) AT&T witness Dr. Selwyn testified that Dr. Aron's Cash Flow Analysis also contains a threshold conceptual flaw: It presumes that CLECs purchasing UNEs should be expected to supply SBC with the cash to fund its capital expansion. (*Id.*, p. 18) He stated that this is a profound error because the issue of providing cash for capital expansion is not the same as asking whether CLECs should pay to use SBC Illinois' capital investment. Nor does it involve whether CLECs should pay rates that provide for a recovery of that investment; nor whether CLECs should pay rates that provide for an appropriate return on SBC Illinois' investment. Dr. Selwyn explained that while capital costs form an important part of a network element's TELRIC cost, Dr. Aron's Cash Flow Analysis assumed that UNE prices should provide the funds used by SBC to expand its network (that is, UNE prices should supply the cash to pay for SBC Illinois' network expansion as it occurs). He stated that this approach turns the CLECs (through UNE prices) into SBC Illinois' investors by requiring that they pay for network facilities "up front" as they are installed, and not over time as the facilities are used by CLECs as well as SBC's own retail services. He stated that TELRIC rates are intended to fully compensate SBC Illinois for its forward-looking capital investments over the life of the asset, however, and not to provide the cash required up-front to purchase the asset. (*Id.*, pp. 18-19)

Dr. Selwyn also testified that Dr. Aron's analysis failed to correctly estimate SBC's capital expenditure per line for Illinois. In particular, Dr. Aron attributed SBC Illinois' entire capital expenditure to its switched access services (even though the number of these lines is declining), while attributing none to its dedicated (and broadband) services, even though these lines are increasing. Dr. Selwyn testified that the most likely cause of SBC Illinois' recent capital expenditures over the last 5 years has been non-switched services, not switched facilities. Over that period switched lines have actually declined by 0.7% per year, while dedicated lines have increased by 26.8% per year. (AT&T Ex. 1.0, Table 1)

With respect to Dr. Aron's claim that UNE-P discourages investment, Dr. Selwyn pointed to SBC Illinois' capital budget for the 4 years prior to the passage of the federal Telecommunications Act compared to its expenditures after that Act was adopted and UNE rates were set. He stated that SBC Illinois' capital expenditures roughly doubled after passage of the Act. (AT&T Ex. 1.0, Table 2) Dr. Selwyn also noted that SBC purchased Ameritech after passage of the federal FF6 Act, and must be held to the market-opening requirements of Section 271, including leasing UNEs at TELRIC-based rates. (*Id.*, p. 22)

Joint CLECs also argued that Dr. Aron's citations to studies by a number of investment firms failed to support her conclusions. AT&T witness Dr. Selwyn explained that investment firms do not commonly evaluate the profitability of SBC's wholesale operations, but rather tend to look at the overall profitability of the company. He stated that the investment firms' analyses did not focus on the question of whether the wholesale rates are compensatory. Additionally, there was a wide variance in the estimates of UNE-P costs presented by the investment firms that Dr. Aron cited, thereby further diminishing confidence in the quality of their estimates. (AT&T Ex. 1.0, pp. 23-25)

Joint CLECs also addressed what they described as Dr. Aron's policy view that "high" UNE rates would be sound public policy. They stated that her testimony on this point is not relevant to a proceeding intended to review the cost justification for UNE loop rates and certain non-recurring charges. Joint CLECs noted that Dr. Aron implied that the Commission should not be concerned about the competitive consequences of UNE rate increases, including an actual price squeeze, because CLECS always have the option of resale. (SBC Ex. 2.0, p. 27) Joint CLECs stated that local service resale has been declining for years, as entrant after entrant concluded it was unprofitable. They stated that resale is no substitute for UNE-based entry, and the effect of increasing UNE rates would be higher consumer prices and/or fewer choices. (AT&T Ex. 1.0, p. 26) Joint CLECs also pointed out that Dr. Aron failed to acknowledge the harm to competition from uneconomically high UNE rates. They stated that local competition is only now beginning to emerge, and UNE-based competition is a critical element; UNE rates that exceed SBC Illinois' forward looking economic costs will retard CLEC entry, frustrate product innovation and will lead to higher prices to consumers. (*Id.*, p. 26) They stated that if SBC Illinois' claimed UNE costs were adopted, the prices of a number of SBC's services would need to be increased, because SBC today offers consumers retail rates that are *less* than what it claims are its forward-looking economic costs. Joint CLECs pointed out that any ILEC competitive service priced below cost (including, for its non-competitive components, the wholesale price imposed on entrants) violates Section 13-505.1 of the Act, and the ILEC's retail rates must therefore increase as a matter of law. Joint CLECs emphasized that UNE rates directly affect the rates paid by end-users, including end-users served by the ILEC, and that the increases being sought by SBC would directly, and negatively, impact consumers. (*Id.*, pp. 26-27)

Joint CLECs also noted that the Commission has previously rejected Dr. Aron's attacks on UNE-P, in its order in Docket 01-0614 (Order issued June 11, 2002, p. 56) They further stated that it is misleading for Dr. Aron and SBC to attempt to show that UNE-L prices are somehow too low through comparisons and analysis of UNE-P prices. (Joint CLEC Initial Br., p. 16) Nonetheless, Joint CLECs responded to Dr. Aron's criticisms of and arguments against UNE-P. (*Id.*, pp. 16-18) They noted that in the time since SBC Illinois has offered UNE-P more than 650,000 Illinois customers have validated the importance of this entry strategy through their marketplace decisions to take UNE-P based service offered by CLECs. (AT&T Ex. 1.0, p. 31) They pointed out that SBC itself has acknowledged that it is being forced to innovate in response to UNE-P based competition, which is beneficial to consumers. (Joint CLEC Initial Br., pp. 18-19)

Joint CLECs responded to Dr. Aron's claim that existing UNE rates are resulting in marketplace distortions in Illinois (SBC Ex. 2.0, p. 42) They stated that her view is misplaced. They disputed the conclusions to be drawn from her observations that since March, 2001, there have been no new facilities-based entrants and that although facilities-based line additions are substantial, growth has decreased, while UNE-P has continued to grow steadily. (*Id.*) They stated that the fact that no new facilities-based entrants have come into being since March 2001 should not be a surprise, because capital markets are essentially closed to CLECs. (AT&T Ex. 1.0, p. 32-33) Joint CLECs further stated that it is impossible to understand how more facilities-based entry, including UNE-L, would result if SBC Illinois were permitted to increase its loop rates as it requests in this proceeding. They stated that if anything, such increases would only discourage such facilities-based strategies. (*Id.*, pp. 33-34)

Joint CLECs also pointed out that UNE-P and UNE-L are used to serve different customer segments. UNE-P is used primarily to offer analog voice services to smaller users (residential and small business), while UNE-L is better suited for providing more complex services to larger customers, particularly in urban areas. (AT&T Ex. 1.0, p. 34; see Order in Dockets 95-0458 & 95-0531 (Cons.), June 26, 1996, p. 56) Joint CLECs stated that given that UNE-P and UNE-L should be expected to serve different markets, there is no basis to blame the decline in UNE-L based entry on the introduction of UNE-P. They stated that the growth of UNE-P starting in 2001 can be attributed to SBC Illinois finally implementing the Commission's orders with respect to UNE-P (and its necessary component, shared transport), thereby opening the mass market to competition. At the same time, they stated the slowing of facilities-based entry should be expected, given the financial performance of competitors pursuing that strategy, as well as the fact that it is (at least relative to UNE-P) past its infant-entry phase when growth rates tend to be most relatively rapid. (AT&T Ex. 1.0, p. 35)

Joint CLECs also disputed the contention that SBC Illinois' UNE unbundling obligations give it reduced incentives to invest in its Illinois network. Dr. Selwyn testified that SBC Illinois' retail demand dwarfs its unbundling volumes. He testified that SBC's investment strategies are driven more by the requirements of its retail business, which involve more than 91% of its network, than by its unbundling obligations, which involve less than 9% of its operations. (AT&T Ex. 1.0, Table 4) Joint CLECs stated that there is no basis to claim that UNE-P discourages carriers (either new entrants or the incumbent) from continuing to make network investments that make sense.

Joint CLECs disagreed with Dr. Aron's assertion that new entrants are competing most heavily for those customers that SBC Illinois overcharges the most. (SBC Ex. 2.0, p. 41) They stated that the ability to offer customers "bundles" of services is one of the benefits of competition, and in fact it was frequently cited as such by SBC when it was seeking interLATA authority. Joint CLECs noted that SBC is similarly competing for the higher-margin customer segment. (AT&T Ex. 1.0, pp. 38-39) Joint CLECs stated that the fundamental complaint of SBC witness Dr. Aron is that competition is forcing SBC Illinois to rationalize its retail pricing systems because it must respond to packages offered by competitors to customers that today pay unreasonably high rates. Joint CLECs argued, however, that such price reform is one of the benefits of competition, and it is generally a result encouraged by responsible economists. (AT&T Ex. 1.0, pp. 37-38) Joint CLECs concluded that the Commission should reject Dr. Aron's views.

Joint CLECs contended that SBC's proposed huge increases in UNE loop prices are contrary to the fundamental, widely-acknowledged fact that telecommunications costs are decreasing, not increasing, and they have declined since the Commission's previous review of SBC's costs in the TELRIC I Order. They stated that SBC has failed to provide any reasonable support for the reversal in loop cost trends that its cost studies contemplate. In their direct testimony (AT&T Ex. 2.0), AT&T witnesses Pitkin and Turner described four primary causes for the cost reductions that have occurred in the telecommunications industry over the past decade, all of which they said are applicable to SBC.

First, they stated that the cost of most telecommunications equipment has declined over time, as indicated and acknowledged by a wide variety of sources. They pointed out that costs

have declined across the board since the Commission last established UNE rates in Illinois. (AT&T Ex. 2.0, pp. 9-11) Second, they stated that telecommunications carriers have realized significant efficiency gains as a result of consolidations (merger savings and improved purchasing power). SBC has been in the forefront of such consolidation, and now serves more than four times the number of lines that Ameritech served in 1996. (*Id.*, p. 11-12) They argued that SBC itself has repeatedly claimed that its mergers would generate efficiencies in the development and delivery of services, and has reported as much to its investors. They noted that SBC and Ameritech predicted more than \$310 million in savings from combining their operations. (*Id.*, p. 12) Third, they claimed that SBC has benefited from the tremendous technological advancements that have occurred, by realizing lower operational expense in maintaining the network and provisioning services. Accordingly, they argued that such savings should be reflected in a forward-looking cost study of SBC's local exchange network designed to establish UNE prices. If properly accounted for in accordance with TELRIC, they would drive down costs and prices. (*Id.*, pp. 12-14) Fourth, they stated that the growth in overall network demand for SBC's services has contributed to significant reductions in unit costs. SBC Illinois' total demand for access lines has grown from 7.66 million in 1996 to 10.2 million lines in 2002, an increase of 33.6 percent. They argued that SBC Illinois has experienced great increases in demand for the various services that can be provided over its network, further driving down its unit costs. Because these services are provided over shared facilities (at least in part), more demand is available to cover common and fixed costs, and unit costs decline. (*Id.*, pp. 14-15) Messrs. Pitkin and Turner noted that in short, the forward looking network consists of a set of facilities that are used to provide the full range of SBC's services, and with the high growth rates that many of these services enjoy, per-unit costs of the joint and common facilities are declining at a significant rate. (*Id.*, pp. 15-16) These witnesses cited other examples of SBC itself stating its expectations that costs would decline. (*Id.*, p. 16)

Joint CLEC witnesses Starkey and Balke also testified to the downward trend in telecommunications costs generally and in SBC's costs in particular. First, they showed that SBC's overhead expenses, as well as its network related expenses, have fallen dramatically when compared to SBC Illinois' access line output, particularly between 1998 (when the Commission adopted the existing UNE loop rates) and 2002. (Joint CLEC Ex. 2.0, pp. 18-19) In 1998, SBC incurred a combined \$322 in attributable expense per access line, while it incurred only \$251 per access line in 2002, a decrease of nearly 23%. They also pointed out that looking at productivity measured by the number of employees per access line, SBC increased its "output" per employee from 616 access lines in 1998 to 737 access lines per employee in 2002, an increase of nearly 20%. They stated that the same comparison between 1996 and 2002 showed a productivity gain of an astounding 42%. (*Id.*, p. 20) Finally, looking at SBC Illinois' operating expenses per access line (*i.e.*, the cash outlay required to support the network and the services it provides, including UNEs), they argue that SBC has seen decreases in these expenses between 1998 and 2002. In 1998 SBC Illinois expended \$302/access line, compared to \$284 in 2002, a decrease of some 6%. (*Id.*, pp. 20-21)

Joint CLECs concluded that it is undisputed that telecommunications carriers' costs have declined and continue to do so. They stated that this decline should be reflected in a proper TELRIC cost study. They stated that this outcome would be consistent with the outcomes of most state regulatory proceedings since this Commission last established UNE rates for SBC Illinois. Joint CLECs stated that SBC's proposal in this case which calls for an increase of more

than 300% in some circumstances cannot credibly be justified by increases in its underlying costs. (Joint CLEC Initial Br., pp. 28-29)

Joint CLECs responded in their Reply Briefs to various economic arguments made by SBC Illinois in its Initial Brief. In response to SBC's arguments that its existing UNE rates are not sending the right economic signals or adequately compensating SBC Illinois or incenting facilities investment by CLECs (SBC Initial Br. at 22), Joint CLECs stated that these arguments, and the data SBC rely on in making them, are not reflective of a competitive market but rather are based upon historical embedded costs, which is just the opposite of what TELRIC requires. Joint CLECs also stated that with respect to UNE-L, there is no economic or policy justification for wanting CLECs to duplicate the ILEC's loop facilities for servicing mass-market customers. (Joint CLECs Reply Br., pp. 6-7)

Responding to SBC's reliance on Dr. Aron's testimony to the effect that at current UNE prices SBC Illinois does not cover its "out-of-pocket" costs for loops (SBC Initial Br. at 22), Joint CLECs stated that Dr. Aron adopted the wrong standard for cost measurement and also applied it wrongly, and as a consequence presents highly misleading results. (AT&T Ex. 1.1, pp. 3-16) AT&T witness Dr. Selwyn pointed out that Dr. Aron's position was tantamount to saying that whatever version of forward-looking costs is closest to SBC's version of embedded (actual) costs must be the most accurate representation of "forward looking," and that because SBC's proposed forward looking costs are closer to embedded than the rates proposed by Joint CLECs or Staff, SBC's proposed costs must be a better representation of "forward looking." Joint CLECs stated that Dr. Aron's "validity check" showed no more than the unremarkable fact that UNE rates are below historic embedded costs. (AT&T Ex. 1.2, p. 7) They noted that under the FCC's rules, the only costs relevant to pricing unbundled network elements are TELRIC, not the ILECs' embedded costs. Joint CLECs also pointed out that Dr. Selwyn identified a list of flaws in Dr. Aron's analysis that showed that the analysis is incapable of providing any kind of "validity check," including: her embedded cost data include investments related to services and network elements that are not even subject to unbundling; she used an overstated cost of capital; she failed to apply the wholesale discount factor to the total embedded costs associated with retailing-specific expenses; she used capital expenditure data that included spending on advanced services; she improperly included volume-insensitive capital plant expenditures (whereas SBC's distribution plant does not require additional investment to accommodate UNE-L or UNE-P entry); and she used highly overstated capital expenditures. (AT&T Ex. 1.1, pp. 8-15) Dr. Selwyn noted that, all else being equal and without adjusting for any of the other errors just listed, if it is assumed that SBC Illinois' capital expenditures have experienced a decline similar to that reported by its parent corporation, that fact alone would eliminate more than 97% of the alleged "discrepancy" reported by Dr. Aron between UNE revenues and SBC Illinois' claimed "actual" expenditures. (*Id.*, pp. 13-14)

Joint CLECs also responded in their Reply Brief to SBC's assertion that the allegedly below-cost loop prices have reduced CLECs' incentive to invest in their own facilities and resulted in CLECs making no real investment in Illinois because it is cheaper to lease loops. (SBC Initial Br., p. 22) Joint CLECs disputed that SBC loop rates are below cost, but also stated that there is in any event no economic or public policy reason to encourage CLECs to build their own local loops to serve mass market residential and business customers, thereby duplicating the facilities that SBC has already installed. (Joint CLECs' Reply Br., p. 8) Joint CLECs also stated

that in asserting in support of its position that the number of facilities-based CLECs in Illinois has declined since widespread use of the UNE-P began in 2001, while the number of UNE-P CLECs has expanded dramatically (SBC Initial Br., p. 22), SBC had misapplied the data. Joint CLECs noted that both UNE-P CLECs and UNE-L CLECs lease unbundled local loops from SBC Illinois, and that the choice between UNE-P and UNE-L as a means of service does not impact the amount of loops otherwise leased from SBC.

In their Reply Brief, Joint CLECs also disputed SBC's claims that current UNE pricing has reduced its ability and incentive to invest in and maintain its network. (SBC Initial Br. at 22-23) They noted that SBC's analysis assumes that all of SBC's infrastructure investment decisions are based solely upon UNE prices, which is implausible. (AT&T Ex. 1.1, p. 24) They pointed out that the FCC concluded in ¶448 of the *Triennial Review Order* that virtually all of the ILEC circuit switching capability that could possibly be required to serve the ILECs' legacy networks has already been deployed. In addition, they argued to the extent that ILECs deploy newer packet switching facilities, the FCC declined to unbundle this form of switching; thus, investment by the ILECs in newer, advanced technologies that are not subject to unbundling are encouraged under the FCC's TELRIC regime. Moreover, they stated that a decision by a firm to invest in new plant and equipment is always based upon forward-looking costs and expected revenues, not historic costs. They claimed that if the price SBC can realize from UNE-P is sufficient to cover its forward-looking incremental costs (including recovery of investment and profit), then SBC will not be discouraged from making the investment. Joint CLECs stated that this is precisely what the TELRIC standard represents: the forward-looking cost of expanding the ILEC's network. (Joint CLEC Reply Br., pp. 9-10)

Joint CLECs also responded to SBC's reliance on the testimony of Mr. Sneed, who discussed a number of "benchmarks" purporting to show that SBC's claimed loop costs are forward-looking. (SBC Initial Br. at 23) Joint CLECs responded that Mr. Sneed ignored the basic premise that, in order to be useful, a benchmark comparison must be performed against a related and meaningful standard. (AT&T Ex. 1.1, pp. 41-42) They stated that there is no reason to expect that efficient forward-looking costs bear any particular relationship to SBC's inefficient backward-looking embedded costs. They stated that Mr. Sneed's benchmarking standard suffers from the same flaws as Dr. Aron's "validity check," and that his comparisons are also unhelpful because they compare data associated with several unrelated lines of business of different scales that would face very different embedded cost structures. Further, Mr. Sneed compared investment per subscriber of SBC Illinois at the state level with that of AT&T, Sprint PCS and Comcast at the international, total company level, which is not a meaningful comparison. (*Id.*, pp. 43-44) Joint CLECs stated that there is simply no reason to assume any specific relationship between SBC's per-line investment costs with the per-line/customer investment costs for cable, long distance and wireless providers. (Joint CLEC Reply Br., p. 10)

Joint CLECs responded in their Reply Brief to SBC's criticisms of the testimony of Messrs. Pitkin and Turner that addresses the fact that declines in equipment costs, merger savings, technological advancements, and growth in overall demand on SBC Illinois' network have resulted in declining costs, and thus, if anything, SBC Illinois' loop costs should be lower than those approved in the TELRIC I Order in 1998. (SBC Initial Br. at 24) In response to SBC's argument that labor costs, not equipment costs, account for the majority of loop costs, and that labor costs are, in fact, increasing, Joint CLECs stated that SBC ignored the fact that

nominal increases in labor rates over the past decade have in fact been outpaced by gains in productivity. They stated that real labor costs have actually declined. Joint CLECs further stated that loop costs are not somehow insulated from the cost-reducing factors that Messrs. Pitkin and Turner cited, *i.e.*, merger savings, new technologies, increased purchasing power with increased size, and growth in overall demand on the network, and that in fact loop costs are particularly affected by the decline in real labor costs. (Joint CLEC Reply Br., p. 11)

Joint CLECs also responded to SBC's argument that its cost studies already reflect greater purchasing power with vendors that has been experienced as a result of the merger, and also incorporate any operating efficiencies that have been achieved. (SBC Initial Br. at 26) They stated that SBC's enormous proposed shared and common cost factor, which is still more than 30%, should tell the Commission that SBC's cost studies do not adequately incorporate merger savings such as reductions in the overhead costs of the firm and increased operating efficiencies." They indicated that SBC's cost studies could not reflect significant cost declines due to the collective impact of the factors cited by the CLEC witnesses and still produce an overall doubling of reported costs. Joint CLECs stated that such a result implies an overall increase of enormous magnitude from some other source(s), which SBC has not identified. (Joint CLEC Reply, Br., pp. 11-12)

Joint CLECs concluded that SBC is not really seeking a finding that its costs have increased, but rather that factors such as cost of capital, depreciation and fill factors should be established in this case on a substantially revised basis from that in the TELRIC I case, thereby producing higher rates. They stated that in the end, SBC is proposing changes that amount to a departure from this Commission's prior TELRIC decisions and that is inconsistent with a proper TELRIC analysis. (Joint CLEC Reply Br., pp. 11-12)

III. UNE LOOP RECURRING COST STUDIES

A. Compliance With TELRIC-General (Including SBC's Loop Cost Analysis Tool, LoopCAT)

It is the Joint CLECs' position that SBC Illinois has not demonstrated in this proceeding that its unbundled loop rates need to be increased. Joint CLECs stated that with respect to SBC's loop costs, SBC has not demonstrated that those costs have increased above the TELRIC costs established by the Commission in the TELRIC I Order. Joint CLECs contended that SBC failed to demonstrate any need for an increase in its UNE loop rates because, among other reasons, the new cost model it employed in this case, LoopCAT, is flawed and unreliable, and does not appropriately model, calculate and present the costs of an efficient, forward-looking network using the most advanced telecommunications technology presently available, as required by the FCC's TELRIC rules. Joint CLECs contended that the LoopCAT model is not an improvement over the previous Ameritech/SBC loop cost models. As a result, Joint CLECs stated that one alternative available to the Commission is to reject SBC Illinois' proposed UNE loop TELRIC studies and continue to use the same UNE loop TELRIC that resulted from the Commission's determinations in the TELRIC I Order. Joint CLECs stated that under this alternative, SBC's UNE loop rates should be revised by applying to the UNE loop TELRIC the revised Shared and Common Cost factor developed by Joint CLEC witnesses Starkey and Fischer.

Joint CLECs stated that in the alternative, if the Commission determines to set loop rates in this docket using SBC's loop cost studies as a starting point, they have presented evidence comprehensively reviewing, critiquing and adjusting SBC's studies where appropriate. Under this alternative, Joint CLECs recommended that the Commission either adopt the loop costs presented by the Joint CLECs' witnesses, or adopt the adjustments proposed by witnesses for Joint CLECs, Staff and the Attorney General that correct the most egregious flaws in SBC's new loop cost model.

Joint CLECs stated that SBC's LoopCAT model is inherently flawed. Joint CLEC witnesses Starkey and Balke, who are familiar with the loop cost models previously used by Ameritech (referred to as AFAM; this model was used to generate the loop costs in the TELRIC I case) and its next-generation successor (referred to as "LFAM"), analyzed LoopCAT and compared it to these predecessor models. They concluded that LoopCAT has a number of problems that render it largely unusable for establishing appropriately forward-looking loop costs, and that it is not superior to the AFAM model relied on by the Commission in the TELRIC I case.

Messrs. Starkey and Balke testified that the LoopCAT model represents a substantial step backward from the modeling techniques used by Ameritech prior to the SBC merger. (Joint CLEC Ex. 2.0, p. 31) They stated that LoopCAT relies heavily on embedded loop samples, and acts as little more than a calculator used to aggregate and mathematically manage embedded network data. (*Id.*) In contrast, they stated that AFAM used the entire inventory of cables in the feeder route network, not just a sample. (*Id.*) Further, they noted, LoopCAT extracts only loop length information from SBC's facilities databases, and does not extract any of the section-by-section characteristics that are critical to understanding the primary cost drivers specific to the loop, such as density, tapering and engineering design. (*Id.*, p. 34) They testified that LoopCAT's reliance on embedded data is a primary defect of this model, along with its proclivity to overly average the embedded data it uses for purposes of extrapolating costs throughout the network. Messrs. Starkey and Balke stated that these defects result in loop cost estimates having little validity with respect to either SBC's actual cost data or to the costs that should result from a diligent adherence to the FCC's TELRIC methodology. (*Id.*)

Messrs. Starkey and Balke detailed the problems they identified with LoopCAT that render it largely unusable for setting appropriately forward-looking loop costs. They stated that, first, LoopCAT does not model a forward-looking network, and relies on embedded data. (Joint CLEC Ex. 2.0, p. 34) LoopCAT calculates average costs per study area using SBC's embedded data. LoopCAT does not re-design anything, or even model a loop network (either embedded or forward-looking). Prior to the actual operation of LoopCAT, a "pre-processor" makes such decisions as which loops are served via fiber or copper, and for the copper facilities, transmission loss and gauging calculations produce the cable mixture by gauge. (*Id.*, pp. 34-35) They stated that as a result, LoopCAT fails to incorporate important engineering information specific to loop architecture building blocks, such as Carrier Serving Areas ("CSAs"), fails to accurately portray SBC's current engineering guidelines, and lacks any ability to re-design the loop network using efficient, forward-looking assumptions. (*Id.*, p. 35)

Second, Messrs. Starkey and Balke stated that LoopCAT's lack of information on loop architecture building blocks causes distortions in the costs it produces. They stated that

LoopCAT's fundamental problem in this regard is that it cannot "build" a loop network using actual engineering architectures including feeder, CSAs and Distribution Areas ("DA") because it relies solely on samples of embedded data. They stated that the individual samples, which contain only loop length data, make it impossible for LoopCAT to "build" a loop network that uses these fundamental loop building blocks. (*Id.*, pp. 35-36) LoopCAT is unaware of the cable section connectivity and tapering impacts of the cables it selects that would result in a well-engineered network. It is also unaware of the locations of the customers to be served in relation to individual CSAs and DAs. They stated that LoopCAT is unable to select appropriate technologies, components and sizes necessary to serve the customers, but rather relies on arbitrary inputs that are dictated by the model operator. (*Id.*, pp. 37-38) Further, they claimed that LoopCAT is unable to aggregate usage at various "nodes" in the network, such as cable branches, or CSAs or DAs. It cannot optimally size loop components based on a forward-looking design, and cannot take advantage of economies of scale. Messrs. Starkey and Balke stated that as a result, LoopCAT has a tendency to overestimate costs. (*Id.*, p. 39)

Third, Messrs. Starkey and Balke stated that the quantity of loop data used by LoopCAT creates a false sense of confidence, because loop length data is only one of the pieces of information needed to model an efficient, forward-looking network and thereby develop a TELRIC-compliant estimate of loop costs. They noted that engineering characteristics of the loop, including the extent to which loops are served in a CSA environment, the tapering characteristics of the loops and other information is also required. (Joint CLEC Ex. 2.0, p. 40)

Fourth, Messrs. Starkey and Balke stated that LoopCAT does not produce meaningful geographically deaveraged costs, because it is built to use data that has been preprocessed by rate zone not by wire center, and thus does not calculate results by wire center or for other, smaller geographic areas than the three rate zones. (Joint CLEC Ex. 2.0, p. 41) More significantly, they asserted that LoopCAT relies heavily on averages in its inputs, which further precludes it from being able to produce de-averaged costs other than based on the existing rate zones. (*Id.*, p. 42)

Fifth, Messrs. Starkey and Balke stated that LoopCAT melds together network characteristics from unrelated sources and contains user-driven inputs which impact costs, combining data from various unrelated sources and data bases to develop outputs the data was not intended for. They asserted that this grouping of the data at a zonal or statewide level can mask deficiencies resulting from the fact that parts of the data used may not be valid individually or may not really fit together. They noted that LoopCAT obtains data on all copper cables, undifferentiated as to what portions of the data are related to feeder or distribution loop facilities or interoffice facilities. Within LoopCAT, unlabeled user-driven inputs then separate this data into feeder and distribution data (interoffice facilities are ignored). They argued that the resultant calculation, which is driven by the user input, directly impacts LoopCAT's calculations of weighted cost per copper pair for feeder and distribution cable, as well as the plant mix among aerial, buried and underground, which also has a substantial impact on the calculated loop costs. Messrs. Starkey and Balke noted that one result of these user-driven assumptions to the LoopCAT results is a high percentage of underground cable (vs. aerial and buried) in the distribution plant. Another result they noted is that all cable types of all gauges and all installation types (aerial, underground and buried) are allocated 50% to feeder and 50% to distribution. They stated that these outcomes have no relationship either to SBC's existing

network or to a properly engineered network consistent with SBC's current engineering guidelines. (*Id.*, pp. 42-45)

Sixth, Messrs. Starkey/Balke stated that the embedded data used in LoopCAT fails to reflect economies of scale and a forward-looking design. They stated that by extracting embedded cable sheath data, LoopCAT fails to reflect efficient facility sizing on a forward-looking basis. They testified that larger cables and loop components would be used in a forward-looking design rather than the smaller sizes that exist in the embedded mix; as a result, costs are affected by, for example, the use of multiple cables within a cable section, when a single larger cable would be more efficient. Messrs. Starkey/Balke gave examples of how this aspect of LoopCAT results in over-stated costs. For example, the forward-looking network will have fewer copper facilities and more fiber-fed DLC facilities, and a different mixture of copper cables by size, than does the embedded loop network. (*Id.*, pp. 46-48)

Seventh, Messrs. Starkey/Balke stated that transmission loss calculations in LoopCAT develop loops that will not work properly and cannot optimize network facility locations. They pointed out that loops are designed in the "pre-processing" of cable data for LoopCAT, but many of these redesigned loops would not work properly. Messrs. Starkey and Balke's review of the loop data pre-processed for LoopCAT revealed thousands of loops in excess of 18,000 feet, which is the distance beyond which loops are generally required to have load coils to compensate for electrical capacitance. However, load coils should not be included in a forward-looking network, both because they are not consistent with the forward-looking CSA provisioning strategy and because of the limitations they impose on using the underlying copper loops for digital services such as DSL. Messrs. Starkey/Balke also noted that although SBC's Loop Deployment Policies and Guidelines indicate a 12,000 foot loop length design threshold, there are tens of thousands of loops in the LoopCAT results with lengths greater than 12,000 feet. They stated that this indicates that costs are probably too high for these loops, whereas with a properly developed forward-looking loop network design, which LoopCAT is incapable of producing, the result would be lower costs for these loops. (Joint CLEC Ex. 2.0, pp. 49-50)

In addition, Messrs. Starkey and Balke testified that LoopCAT is incapable of making the decision on where to properly place DLC equipment in order for the loops it designs to work properly, or to minimize costs. For example, they stated that for the thousands of loops in LoopCAT that are longer than 18,000 feet, a fiber-fed DLC remote terminal ("RT") would need to be placed close to the customer locations in order to reduce the excessive copper lengths. While this involves a cost trade-off of longer length cables versus greater use of DLC RTs, LoopCAT is incapable of identifying the least-cost choice. Messrs. Starkey and Balke stated that LoopCAT is incapable of performing any sort of network optimization and re-design because of its reliance on embedded loop characteristics and facility location, and because it does not incorporate an approach based on network building blocks such as CSAs and DAs. (Joint CLEC Ex. 2.0, pp. 49-50)

Eighth, Messrs. Starkey and Balke identified a number of data anomalies in the pre-processed data used in LoopCAT, including duplicated length data and FDI loop appearance data that they testified cannot possibly be right. They stated that these anomalies suggest potential problems with the underlying data source, or that certain types of facilities were excluded from the data used. They also testified that another problem with the pre-processed data used in

LoopCAT lies with the methodology used to pre-process the loop length data. They explained that in actually designing a loop network, cable gauge and transmission loss design decisions are not made one pair at a time, but rather are based on an overall view of the loop network and the architecture in question, and take into account cable section lengths, DA locations, customer locations, and similar information. However, they argued that because LoopCAT has no information on loop architecture building blocks, and makes design decisions one pair at a time, LoopCAT cannot make accurate transmission design decisions. Messrs. Starkey and Balke stated that this is a substantial flaw in LoopCAT's methodology. (Joint CLEC Ex. 2.0, pp. 51-53)

Ninth, Messrs. Starkey and Balke stated that the installation factors used in LoopCAT cause cost distortions. They explained that within LoopCAT, installation factors are developed exclusively from databases containing embedded data, but that the use of widely averaged factors, based on historical data culled from numerous provisioning scenarios, can cause major distortions in the cost study. They testified that because most of the installation factors are developed on a statewide basis, they can distort results when applied to a more geographically-specific level such as the rate zones used in LoopCAT. They further stated that these widely-averaged installation factors also cause distortions when applied to different sizes of cables, because large and small cables have different material-to-total installed cost relationships. Messrs. Starkey and Balke gave examples of how LoopCAT's use of widely-averaged installation factors can cause cost distortions. They also pointed out that although SBC's engineering witness had testified that placing multiple cables in a location instead of a single, larger cable is in most circumstances significantly more expensive, LoopCAT, because it relies on averaged, embedded data, tends to calculate loop costs using the multiple cables in a single location. That is, they explained, the use of the average installation factor does not recognize a distinction between the more costly alternative of installing multiple cables in the same location and the less costly alternative of installing a single larger cable. (Joint CLEC Ex. 2.0, pp. 53-57)

Tenth, Messrs. Starkey and Balke stated that LoopCAT includes specific costs that are already accounted for in the model through the use of installation factors, which results in double-counting of costs. They provided examples of this problem in the LoopCAT results. (Joint CLEC Ex. 2.0, pp. 57-63)

Eleventh, Messrs. Starkey and Balke testified that LoopCAT provides for a much smaller selection of fiber cable types than are in fact available to designers in the real world. They explained that the availability of numerous cable types in the real world design process enables designers to select among those options in the manner that will best meet demand and reduce costs; however, they argued that LoopCAT's inability to choose from the same range of options generally available substantially limits the applicability of its results. They gave examples of how this limitation in LoopCAT can result in overstatement of costs. (Joint CLEC Ex. 2.0, pp. 64-65)

Joint CLECs contended, in summary, that SBC's LoopCAT model, including the steps by which the data used by LoopCAT is "pre-processed", is seriously flawed, and as presented in this case cannot be relied on to produce reasonable, forward-looking loop costs representative of an efficient, forward-looking network (as opposed to SBC's embedded network). Joint CLECs stated that neither the input data nor the model itself are sufficient to produce rates consistent with the FCC's TELRIC methodology, and that SBC's LoopCAT-based loop costs do not satisfy

SBC's burden of proof under the FCC's TELRIC rules and cannot be used to substantiate any claimed increase in SBC's loop rates. Joint CLECs concluded that in light of the problems with LoopCAT one alternative available to the Commission is simply to reject the LoopCAT results submitted by SBC and set loop rates in this case using the same TELRIC loop costs the Commission determined in the TELRIC I Order. (Joint CLEC Initial Br., p. 38)

In their Reply Brief, Joint CLECs responded to SBC's arguments that its predecessor models to LoopCAT did not properly (in SBC's view) take into account the fact that cable is only available in certain size increments and thus understated fill factors. (SBC Initial Br., pp. 149-50) Joint CLECs pointed out that Mr. Balke, who worked extensively with the AFAM model while an Ameritech employee, testified that the AFAM model used to produce the loop costs adopted by the Commission in the TELRIC I Order used exactly the same "cable sizing constraint" that is used by LoopCAT, although the two models perform the necessary calculations in different sequences, and would produce the same results given the same inputs. (Joint CLEC Ex. 1.2, pp. 7-11) They noted that the approach attributed to AFAM by SBC in its Initial Brief is in fact the approach used by another model subsequently adopted by Ameritech, which was not the model used to produce the loop costs adopted in the TELRIC I Order. (*Id.*, pp. 7-8)

In response to SBC's argument that the AFAM model used in the TELRIC I Order failed to account for several items of network equipment (SBC Initial Br., p. 149), Joint CLECs pointed out that AFAM reflected at least some of these supposedly "missing" components via the use of loop installation factors, and that SBC's witness ultimately agreed with this. (Joint CLEC Ex. 1.2, p. 11) With respect to SBC's reliance on a presentation made to Staff in 1999 that according to SBC showed that including the "missing" items in the prior study would result in significant increases to the loop investment and TELRIC costs per loop (SBC Initial Br., pp. 150-51), Joint CLECs noted that according to Mr. Balke, who was involved in the 1999 presentation, that presentation showed the impacts of numerous new inputs and assumptions that SBC sought to use, including increased installation factors and cable and equipment prices. Mr. Balke estimated that the cost impacts of the missing components only was to increase the approved TELRIC costs by less than 50 cents per loop per month, and that this increase would likely be offset by other factors that would decrease loop costs. (Joint CLEC Ex. 2.1, pp. 12-14)

In response to SBC's argument that the previous models used much smaller samples of SBC's cable inventory than does LoopCAT and that those samples are aged (SBC Initial Br., p. 150), Joint CLECs noted that the samples used by LoopCAT are actually inferior because they only extract information on loop length from SBC's loop data bases, and do not extract any of the section-by-section characteristics of the network that are critical in understanding the primary cost drivers specific to the loop, such as density, tapering and engineering design. In contrast, AFAM extracted a much greater wealth of information on cable characteristics. They also pointed out that the loop data samples used by AFAM were statistically valid when collected. (Joint CLEC Ex. 2.1, pp. 27-28) Joint CLECs noted that given SBC's assertions that it has used the same engineering standards for many years, the AFAM samples should still be valid. (Joint CLEC Reply Br., pp. 15-16)

In response to SBC's argument that the failure to develop costs by wire center is not important because the Commission has established three UNE loop rate zones for SBC (SBC

Initial Br., p. 152), Joint CLECs stated that SBC failed to recognize the point that developing costs by wire center, or even smaller geographic areas, may identify opportunities for cost-effective design decisions in the forward-looking, efficient network. They stated that the existing SBC rate zones are grounded in SBC's existing, embedded network. Further, given that the FCC's TELRIC rules require that the efficient, forward-looking network be designed assuming the existing locations of the ILEC's wire centers, they noted that the failure to develop costs by wire center would seem to be a critical omission. (Joint CLEC Reply Br., pp. 16-17) More generally, Joint CLECs reiterated that LoopCAT is incapable of designing an efficient, forward-looking network. They noted that it is heavily dependent on embedded data about SBC's existing network and thus cannot produce or reflect the efficient facility and equipment sizing, economies of scale, efficient choices of technology (e.g., fiber vs. copper) and cable sizes, optimal placement of equipment, and other considerations that one would expect to be taken into account in designing an efficient, forward-looking network that deployed the most efficient telecommunications technology available today. Joint CLECs concluded that the Commission cannot use LoopCAT's output with any confidence that it will represent the costs of an efficient, forward-looking network (assuming SBC's existing wire centers and customer locations) that TELRIC requires. (*Id.*, pp. 17-18)

Joint CLECs also contended that as applied in this case, SBC's LoopCAT model is riddled with errors that inflate SBC's costs. They stated that the LoopCAT results as originally filed in this case in December 2002 included many TELRIC cost errors. They stated that SBC's original LoopCAT model studies submitted in this case, among other errors, failed to account for multiple dwelling units; it included a significant double count and overstatement of digital loop carrier ("DLC") installation costs; and it included a double count of distribution terminal costs. (SBC Ex. 4.1, p. 5) They noted that SBC's correction of these errors (which were identified in other parties' testimony filed in May 2003) caused SBC's LoopCAT costs to decline by some 25%. (Tr. 701-704; AT&T Cross Exs. 25-26; Joint CLEC Initial Br., p. 39)

Joint CLECs further contended that the LoopCAT model, as used by SBC, deviates from the TELRIC pricing methodology on numerous significant grounds. They noted that the intent of the TELRIC methodology is to generate UNE costs that reflect a competitive wholesale environment while ensuring that competitors do not pay for inefficiencies inherent in the ILEC's monopoly network. They stated that LoopCAT does not comply with the fundamental TELRIC cost assumptions that (1) the ILEC has replaced its existing network with the least-cost, most-efficient technology and network design available, assuming that its customers and wire centers remain static (47 C.F.R. §51.505(b)(1)) (the "scorched node" approach); and (2) the use of embedded costs in TELRIC cost studies is expressly prohibited. The FCC has defined embedded costs as "costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LECs books of accounts." 47 U.S.C. §51.505 (Joint CLEC Initial Br., pp. 39-40) Joint CLECs noted that if SBC's network was redesigned today, with full knowledge of where current demand is located, it would be able to design and route plant more efficiently than what currently exists. (AT&T Ex. 2.0, p. 149) They stated that SBC's present network, fill factors, and installation factors are all based upon embedded accounting data derived from a network that has resulted from piece-meal construction, using dated technology. They stated that as a matter of law, SBC's embedded data cannot be the basis for determining SBC's forward-looking costs. (Joint CLEC Initial Br., p. 40)

Joint CLECs also stated that LoopCAT is based on embedded outside plant routing and cable sizing, which is inappropriate for three reasons: (i) In constructing outside plant to meet known demand from scratch, one can size cable more precisely to meet current demand and short-run anticipated growth; (ii) knowing current customer demand with certainty allows use of algorithms to more precisely tailor cable routings to minimize overall cable length required to meet that demand, and (iii) current service area interfaces (“SAIs”) and digital loop carrier (“DLC”) equipment service much larger areas than in the past. (AT&T Ex. 2.0, pp. 150-161) They stated that LoopCAT, however, “designs” and costs out the “hypothetical” network based upon SBC’s inherently inefficient, embedded distribution area design and cable sizing mix. (Joint CLEC Reply Br., p. 20) Additionally, they contended that LoopCAT fails to account for the fact that IDLC is the forward-looking technology that should be assumed in a TELRIC study, as the FCC concluded in the *Virginia Arbitration Order*. (Joint CLEC Reply Br., p. 20)

Joint CLECs stated that LoopCAT uses linear loading factors that derive installation costs based upon historic, embedded data included in SBC’s accounting systems. They stated that even if linear loading factors were appropriate, SBC’s reliance on historic data from its General Ledger to derive those factors violates TELRIC. They contended that SBC’s installation factors are unlawfully based upon the relationship between material and installation costs of backward-looking, inefficient equipment (such as old DLCs and repeaters), which is data that reflects historical inefficient cost relationships rather than efficient forward-looking cost relationships. (Joint CLEC Reply Br., pp. 19-20)

Another criticism of LoopCAT advanced by Joint CLECs is that because SBC’s installation costs are based on historical data, they fail to account for the economies of scale demanded by the TELRIC methodology. Joint CLECs noted that the embedded data SBC used to develop its installation factors reflect “reinforcement” jobs and thus do not reflect the economies of scale associated with large-scale network construction that should be reflected in a TELRIC study; therefore, LoopCAT tends to overstate costs. (Joint CLEC Reply Br., p. 20)

Additionally, Joint CLECs contended that SBC’s loop cost studies do not incorporate discounts to which SBC was entitled under its contract with a major equipment vendor, but which SBC waived in order to receive benefits in other portions of its business. They stated that these equipment discounts should be reflected in the costs of the forward-looking network that an efficient competitor would build. (Joint CLEC Reply Br., p. 20)

Joint CLECs expressed concern that the record showed that SBC and its LoopCAT witness, Mr. Smallwood, knew before SBC filed this case on December 24, 2002, about many of the errors in the LoopCAT results that SBC had to correct in its rebuttal testimony (after they were pointed out by other parties in this case), but apparently chose not to fix these problems. Joint CLECs pointed out that the record showed that SBC and Mr. Smallwood knew about these problems prior to SBC’s filing of its tariffs, cost studies and direct testimony in this docket yet did not make corrections before submitting the LoopCAT results in this case as part of the basis on which SBC requested substantial increases in its loop rates. In that filing, SBC witness Smallwood provided direct testimony in which he claimed that the LoopCAT model fully complied with the TELRIC methodology. (Joint CLEC Initial Br., pp. 41-42) Joint CLECs noted that the Indiana Commission, in a recent order concerning SBC’s UNE loop rates, discounted Mr. Smallwood’s credibility for ignoring these LoopCAT problems for so long.

(IURC Order in Cause No 42393 (issued Jan. 4, 2004), p. 41) Joint CLECs concluded that the above-described facts should lead the Commission to severely discount SBC's and Mr. Smallwood's credibility on loop-related issues. (Joint CLEC Initial Br., pp. 43-44)

Joint CLECs also argued that SBC overstated the relevance and importance of comments by the FCC in its TELRIC Notice of Proposed Rulemaking. (Notice of Proposed Rulemaking, *Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements*, WC Docket No. 03-173, FCC 03-224 (rel. September 15, 2003) ("TELRIC NPRM")) Joint CLECs stated that regardless of the wide array of questions posed by the TELRIC NPRM, the TELRIC methodology has not changed, and will not change, until the FCC actually issues an order that promulgates new TELRIC rules. (Joint CLEC Initial Br., pp. 45-46) They stated that the TELRIC NPRM shows at most that the FCC has only solicited comment on certain potential interpretive and policy decisions but has not changed the TELRIC rules or methodology. They noted that the FCC made it clear in the TELRIC NPRM that reference to the LEC's current network is inappropriate under the current TELRIC methodology, and thus that a focus on SBC's current network configuration is wholly inappropriate under the current TELRIC rules. Joint CLECs further noted that in the TELRIC NPRM, the FCC confirmed its commitment to forward-looking costing principles (TELRIC NPRM, ¶¶29, 37) They also pointed out that the TELRIC NPRM confirmed the "scorched node" rule. (TELRIC NPRM, ¶49) Additionally, the Joint CLECs pointed out that the TELRIC NPRM also confirmed that a central principle of the current UNE pricing rules is that CLECs should not pay UNE rates that compensate the ILEC for past inefficiencies. (TELRIC NPRM, ¶33) Joint CLECs concluded that the TELRIC NPRM confirms that embedded costs and past ILEC network inefficiencies cannot be an appropriate basis for TELRIC costs. (Joint CLEC Initial Br., pp. 46-47) They stated that whatever the outcome of the TELRIC NPRM proceeding, it is clear that UNE prices must be based upon forward-looking assumptions and that this will continue to be the case. (Joint CLEC Reply Br., pp. 18-19)

B. Major Inputs To Cost Studies

1. Fill Factors

a. Summary of Joint CLECs' Recommendations

Joint CLECs offered three options for the Commission in determining what fill factors to use in calculating SBC Illinois TELRIC-based UNE loop costs in this proceeding. Joint CLECs' first, preferred option is that the Commission use in SBC's TELRIC studies for setting its wholesale UNE prices the same fill factors that SBC uses in its retail "LRSIC" (long-run service incremental cost) studies in accordance with the Commission's Cost of Service rule, 83 Ill. Admin. Code Part 791. These fill factors are the "usable fill" factors and (as defined in 83 Ill. Admin Code §791.20(n)) represent the amount of fill if SBC's loop facilities were fully utilized except for the capacity needed for maintenance, testing and administrative purposes. The specific "usable capacity" fill factor values that Joint CLECs recommend be adopted were supplied by SBC Illinois and are the fill factors that SBC has used in its most recent LRSIC studies for retail services. (AT&T/Joint CLEC Ex. 1.0, pp. 193-194) Joint CLECs' second option is to use the same fill factors that the Commission adopted in the TELRIC I Order. These fill factors are the "target fill" factors and represent the point of network utilization at which it

becomes more cost effective for SBC to install new capacity to meet growth in demand rather than to continue to fill existing facilities. Joint CLECs' third option is to use the "forward looking actual fill" factors proposed by Staff witness Dr. Liu, as adjusted by Messrs. Starkey and Fischer, to remove the effects of observed inefficiency in SBC's network. A table at page 50 of Joint CLECs' Initial Brief shows the fill factors for major components of the network under Joint CLECs' three options, as well as the fill factors proposed by SBC (its current actual fill factors) and the "forward-looking actual fill" factors proposed by Staff witness Qin Liu.²

Joint CLECs summarized provisions of FCC orders and this Commission's TELRIC I Order bearing on the determination of appropriate fill factors in a TELRIC study, at pages 50-53 of their Initial Brief. They noted that in the *Local Competition Order*, where the FCC adopted the TELRIC methodology for setting the prices of UNEs, the FCC stated:

We conclude that under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. (¶682)

In determining how to implement the forward-looking cost concept it articulated in ¶682 of the *Local Competition Order*, the FCC noted that:

Forward-looking cost methodologies, like TELRIC, are intended to consider the costs that a carrier would incur in the future. Thus, a question arises whether costs should be computed based on the least-cost, most efficient network configuration and technology available, or whether forward-looking cost should be computed based on incumbent LECs' existing network infrastructures, taking into account changes in depreciation and inflation. (*Id.*, ¶683)

After discussing the merits of both approaches, the FCC concluded that use of the most efficient network configuration and technology would best accomplish its objectives:

We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements. (*Id.*, ¶685)

Further, the FCC stated in ¶¶690 and 692 of the *Local Competition Order*:

²The actual fill factor values are claimed to be proprietary by SBC and therefore are not reproduced in this Order, but are shown at p. 50 of Joint CLECs' Initial Brief (PROPRIETARY version).

The increment that forms the basis for a TELRIC study shall be the entire quantity of the network element provided. . . . Only forward-looking, incremental costs shall be included in a TELRIC study. Costs must be based on the incumbent LEC's existing wire center locations and most efficient technology available. (§690)

In a TELRIC Methodology the "long run" shall be a period long enough that all costs are treated as variable and avoidable. This "long run" approach ensures that rates recover not only the operating costs that vary in the short run, but also fixed investment costs that, while not variable in the short term, are necessary inputs directly attributable to providing the element. (§692)

Joint CLECs also noted that the FCC also emphasized that embedded costs are not to be included in the forward-looking costs that are used to set UNE prices. (*Id.*, §§704-707; see 47 C.F.R. §51.505(d)(1))

Joint CLECs noted that in its TELRIC regulations, the FCC expressed the concept of "forward-looking economic cost per unit" as follows (47 C.F.R. §51.511(a)):

The forward-looking economic cost per unit of an element equals the forward-looking economic cost of the element, as defined in §51.505, divided by a reasonable projection of the sum of the total number of units of the element that the incumbent LEC is likely to provide to requesting telecommunications carriers and the total number of units of the element that the incumbent LEC is likely to use in offering its own services, during a reasonable measuring period.

Joint CLECs stated that in this Commission's TELRIC I case, three different approaches to fill factors were identified to the Commission: actual fills, usable capacity fills and target fill factors. (TELRIC I Order, p. 29) Focusing its attention on the "usable capacity" and "target fill" approaches, the Commission concluded that it should utilize the "target fill factor" approach that was advocated in that case by Ameritech:

We will adopt the "target" fill factors as suggested by [Ameritech witness] Mr. [William] Palmer, because we agree with him that TELRIC-based prices are reasonably based in the "optimal usage level above which it is more cost effective to add plant and capacity rather than increase the utilization of existing plant." We are not persuaded that AT&T's and MCI's preference for the LRSIC standard of usable capacity adequately reflects this important efficiency factor. In addition, the difference between usable capacity and target capacity provides capacity to meet growth. When the target is reached more capacity needs to be added. (*Id.*, p. 34)

However, in the TELRIC I Order, the Commission implemented the target fill factor concept by adopting the specific values proposed by Commission Staff:

We will use the target fills that Staff proposed. We note that Staff reviewed the same data relied upon by Ameritech Illinois to develop the targets. Furthermore, Staff used the same standard that [Ameritech witness] Mr. [William]

Palmer proposed which we quoted above. Staff's analysis was essentially un rebutted. We believe that the change in methodology from usable capacity to target capacity will take into account the emerging unbundled environment appropriately and adequately. (*Id.*)

In addition, in rejecting proposals to conduct additional proceedings to consider additional methodologies for determining "projections of actual use" in accordance with the *Local Competition Order*, the Commission stated in the TELRIC I Order: "If local exchange competition is to develop, potential competitors require a stable pricing environment within which to develop business plans. That will not be possible if we are relitigating significant assumptions underlying price." (*Id.*)

Joint CLECs stated that in this case, SBC is urging the Commission to depart from the approach it adopted in the TELRIC I Order (the approach SBC advocated in that case) and to use instead SBC's current actual fill factors. Joint CLECs stated that the "current actual" fill factors that SBC proposes are, for all components of the network, significantly less than the fill factors the Commission adopted in the TELRIC I Order. They noted that adoption of the fill factors proposed by SBC in this case would result in a substantial increase in the existing UNE loop rates even if no other changes were made to the cost studies approved in the TELRIC I Order. On a statewide average basis, use of SBC's proposed fill factors would add \$8.77 to the current monthly loop cost of \$6.94 (*i.e.*, before application of the Shared & Common Cost Factor that resulted from the TELRIC I Order. (Joint CLEC Initial Br., pp. 53-54) SBC's proposed change from the target fill factors adopted by the Commission in the TELRIC I Order to the current actual fill factors proposed by SBC accounts for some 40% of SBC's proposed UNE loop price increase in this case. (SBC Ex. 1.0, p. 17)

Joint CLECs contended that SBC failed to meet its burden to show that use of its current actual fill factors would be representative of the forward-looking costs of an efficient network that utilizes the most efficient telecommunications technology currently available and the lowest cost network configuration given the location of SBC's existing wire centers, as required by the FCC's TELRIC pricing rules. (47 C.F.R. §51.505(b)) They noted that witnesses for CLECs, Commission Staff, the Attorney General and the Citizens Utility Board unanimously opposed use of SBC's current actual fill factors as not TELRIC-compliant.

Joint CLECs stated that, like SBC, Staff witness Dr. Liu also proposed a departure from the fill factor method the Commission adopted in the TELRIC I Order. Dr. Liu proposed a concept, apparently heretofore not adopted by any other state commission, that she called "forward-looking actual fills". However, her new method proved to be incapable of implementation. Joint CLECs stated that the fill factor values Dr. Liu ultimately proposed were nothing more than SBC's actual fill factors to which she applied modest upward adjustments that were utterly arbitrary and totally lacking in empirical support. Joint CLECs stated that Dr. Liu's proposed fill factors must be rejected as being totally devoid of any credible basis. (Joint CLEC Initial Br., pp. 81-86)

b. Joint CLECs' First Option: Usable Capacity Fill Factors

Joint CLECs recommended that the Commission use SBC Illinois' "usable capacity" fill factors for purposes of setting its UNE loop rates. "Usable capacity" is the maximum physical capacity of the network less any capacity that is required for maintenance, testing and administrative purposes. Usable capacity fill factors represent the optimal usage capable of being sustained from an engineering perspective. (AT&T/Joint CLEC Ex. 1.0, p. 187) Usable capacity fill factors therefore represent a network whose capacity is fully utilized to serve demand except for that capacity that is needed for maintenance, testing and administrative purposes to operate the network. (Joint CLEC Initial Br., pp. 56-57)

Joint CLECs stated that the process prescribed by the FCC for calculating TELRIC-based rates requires that the ILEC design and construct (conceptually) a forward-looking, least cost network that relies upon the most efficient technology and configuration available sized consistent with a reasonable projection of its total demand. After having sized the network accordingly (and subsequently developing the total costs for such a network) the ILEC is then required to develop "per-unit costs" by dividing its total network costs by the projection of total demand used to size the network. Because the forward-looking network will include only the latest technology (capable of being deployed very modularly), and will be sized based on a known quantity of demand (*i.e.*, the projection of its total demand), the only constraints that keep the ILEC from building the (hypothetical) forward-looking network with nearly perfect (*i.e.*, 100%) utilization of capacity are the maintenance, testing and administration requirements that necessitate that some capacity be set aside for these purposes. Joint CLECs stated that, accordingly, "usable capacity" fill factors represent the most reasonable interpretation of the FCC's fill factor requirements for TELRIC studies. (AT&T/Joint CLEC Ex. 1.0, pp. 196-197)

Joint CLECs stated that ¶682 of the *Local Competition Order* specifies that "the per-unit costs associated with a particular element must be derived by dividing the total costs associated with the element by a reasonable projection of the actual total usage of the element," while ¶685 correspondingly requires that the reconstructed local network employ the most efficient technology for "reasonably foreseeable capacity requirements". They stated that the "actual total usage" referred to in ¶682 is the demand that must be considered in developing per-unit costs, not the actual level of fill or utilization. Thus, Joint CLECs stated that developing a fill factor in accordance with the FCC's directives in the *Local Competition Order* requires calculation of the actual demand divided by the most efficient amount of network capacity required to support it. They stated that that is exactly what "usable capacity" fill factors represent – the most efficient (complete) utilization of the network, with the network's capacity fully utilized to serve demand except for the capacity needed to be kept aside (in accordance with sound engineering and economic guidelines) for maintenance, testing and administrative purposes. (AT&T/Joint CLEC Ex. 1.2, p. 74; Joint CLEC Initial Br., pp. 57-58)

Joint CLECs stated that arguments that the "usable capacity" fill factors are not consistent with TELRIC requirements because they do not provide for unused capacity to serve long-term, future "ultimate" demand are misplaced. They stated that to calculate fill factors by including sufficient capacity in the forward-looking network to serve long-term, "ultimate" demand (and dividing that capacity amount into current actual demand) would be economically

unsound, and would not be consistent with the TELRIC requirement to assume an efficient, forward-looking network. Joint CLECs stated that inclusion of long-term “ultimate” demand in the capacity component (denominator) of the fill factor calculation (along with current capacity in the numerator) would essentially force current customers to pay for capacity to be used to serve growth in usage by future customers. In contrast, argued the Joint CLECs, the usable capacity fill factors represent an efficient network that is sized to meet demand in the most efficient manner, *i.e.*, with no excess capacity. (AT&T/Joint CLEC Ex. 1.2, pp. 75, 77; Joint CLEC Initial Br., p. 58) Joint CLECs also pointed out that the FCC’s *Local Competition Order* requires use of “reasonably foreseeable capacity requirements.” They noted that the FCC stated in its recent TELRIC NPRM that this necessitates the consideration of at most anticipated short-term growth, but not long-term growth or “ultimate” demand:

The *Local Competition Order* provides no guidance to state commissions on this specific issue beyond the general requirement that the network should be sized to meet reasonably foreseeable demand. In the *USF Inputs Order*, the Commission established forward-looking fill factors based on current demand, which it defined to include excess capacity for short-term growth, rather than on ultimate demand, which it found to be too speculative. (TELRIC NPRM, ¶73)

Joint CLECs stated that the FCC has made it clear that for purposes of determining fill factors, it is reasonably foreseeable short-term demand that must be considered, not “speculative” long-term or “ultimate” demand. (See AT&T/Joint CLEC Ex. 1.2, pp. 79-80) They stated that “usable capacity” fill factors satisfy these requirements. (Joint CLEC Initial Br., p. 59)

Joint CLECs stated that another reason for using SBC’s usable capacity fill factors to calculate its wholesale UNE rates is to achieve consistency between the fill factors used in the wholesale costing/pricing studies and the fill factors used in SBC’s retail costing/pricing studies. They noted that when calculating costs for purposes of its retail cost studies, including LRSIC studies required by Code Part 791, SBC uses usable capacity fill factors. (AT&T/Joint CLEC Ex. 1.0, pp. 190) They stated that there is no reason from an engineering or economic viewpoint that the same fill factors should not be used in both wholesale and retail costing/pricing studies. They noted that SBC uses the same network, technicians and OSS platforms and methods to provide both its retail and its UNE products and services. The costs SBC incurs to provision a given network element (whether unbundled to be provided at wholesale or provided as a component of a retail service) are the same. SBC does not engineer its network with different capacity assumptions for wholesale and retail customers. Therefore, there is no reason to assume different amounts of spare or unused capacity in the network in cost studies that are conducted for retail and wholesale purposes. (AT&T/Joint CLEC Ex. 1.2, p. 76; AT&T/Joint CLEC Ex. 1.0, pp. 188, 193-94, 198; Joint CLEC Initial Br., pp. 59-60)

Joint CLECs further contended that an objective of the FCC’s TELRIC methodology is to enable CLECs to share in the economies of scale and scope that the ILEC enjoys in providing its retail services, so that the ILEC and its competitors can compete on a level playing field. (AT&T/Joint CLEC Ex. 1.0, p. 188) They stated that this objective is thwarted if SBC is allowed to develop costs for its retail services using markedly different inputs and assumptions than it uses to develop its UNE costs, since the same facilities are used for both, and the costs to provide the retail and the wholesale product should be identical. (*Id.*) They stated that allowing

SBC to use fill factor values to set its UNE prices that are lower than the usable capacity fill factor it uses in its retail LRSIC studies will enable SBC to set low price floors for its retail services (and thereby to set lower prices for products and services for which it faces competition), while allowing SBC to impose much higher costs and prices for the same network components on its UNE-purchasing competitors. (*Id.*, p. 189) They stated that using the same fill factors for both wholesale and retail studies will avoid this outcome. Joint CLECs pointed out that in the recent rulemaking to amend Code Part 791, SBC/Ameritech had advocated the use of consistent assumptions for fill factors (as well as for cost of capital and economic lives) in both LRSIC and TELRIC studies. (*Id.*, pp. 191-92; Joint CLEC Initial Br., p. 61)

Joint CLECs noted that for the most impactful network components, the usable fill factors are only 5% to 6% above the fill factor values adopted by the Commission in the TELRIC I Order. They stated that use of the usable fill factors should have only a modest impact on the currently-effective UNE loop prices and would be consistent with the objective of rate stability which is critical to continued development of a competitive local exchange market. (Joint CLEC Initial Br., p. 62)

c. Joint CLECs' Second Option: Target Fill Factors Adopted in the TELRIC I Order

Joint CLECs stated that if the Commission decides not to adopt usable capacity fill factors in this case, then it should continue to use the target capacity fill factors that it adopted in the TELRIC I Order. Target fill factors represent the level of network utilization at which it would be more cost-efficient for the carrier to supplement its network (add new capacity) rather than to increase the amount of utilization on its existing facilities. (AT&T/Joint CLEC Ex. 1.0, p. 202) Joint CLECs pointed out that in the TELRIC I case, the Commission decided, after extensive analysis, that Ameritech Illinois' target fill factors best satisfied the FCC's forward-looking cost methodology. (TELRIC I Order, p. 34)

Joint CLECs emphasized that the "target fill factor" concept adopted in the TELRIC I Order was proposed by Ameritech. They noted that Ameritech's fill factor witness in that case, William Palmer, testified that Ameritech had purposely constructed its target fill factors to accommodate the additional demands of unbundling and increased customer churn resulting from the 1996 Act, as well as the FCC's definition of fill factors in the *Local Competition Order*. They pointed out that the Ameritech witness testified that the target fills realistically reflect efficient network use and are appropriate for the development of forward looking economic costs and reflect the qualitative change in methodology from usable to "reasonably accurate" fill. They stated that Ameritech had therefore recognized the appropriateness of the target fill factor concept to satisfy the FCC's TELRIC requirement that "per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage". (*Local Competition Order*, ¶682) (Joint CLEC Initial Br., pp. 63-64) Joint CLECs further noted that the Commission had agreed with Ameritech's proposal:

We will adopt "target" fill factors as suggested by Mr. Palmer, because we agree with him that TELRIC-based prices are reasonably based on the "optimal usage level above which it is more cost effective to add plant and capacity rather than increase the utilization of the existing plant." (TELRIC I Order, p. 34)

The Commission also concluded in the TELRIC I Order that “the difference between usable capacity and target capacity provides capacity to meet growth. When the target is reached more capacity needs to be added.” (*Id.*)

Joint CLECs stated that continued use of the target fill factors the Commission adopted in the TELRIC I Order was endorsed by witnesses for parties other than the CLECs. They pointed out that in his direct testimony, Commission Staff witness H.R. Green, the Commission’s Chief Telecommunications Engineer, recommended that the Commission continue to use the fill factors it ordered for SBC in the TELRIC I Order in determining SBC’s UNE rates. (Staff Ex. 10.0, pp. 15, 18) Additionally, Attorney General witness William Dunkel recommended that the Commission continue to use the fill factors for SBC Illinois that the Commission adopted in the TELRIC I Order. (AG Ex. 1.0, p. 36)

Joint CLECs stated that continued use of the target fill factor values would promote stability and continuity in SBC Illinois’ UNE loop prices. They stated that this consideration is particularly important given the significant impact that the fill factor values used (and any change in fill factor values) will have on the overall UNE rate calculation. (Joint CLEC Initial Br., pp. 65-66)

In their Reply Brief, Joint CLECs responded to various criticisms made by Staff with respect to the use of both usable capacity fill factors and target fill factors. Joint CLECs noted in particular that Staff placed great emphasis, both in discussing “usable capacity” and throughout the Fill Factors section of its Initial Brief, on the fact that there are fixed and sunk costs associated with loop deployment (a phrase that Staff essentially used to encompass the concept that there are efficiencies and economies associated with installing network facilities in advance of the actual manifestation of demand). Joint CLECs responded that while this is true with respect to the embedded network it is not correct with respect to the TELRIC network, because the FCC’s methodology assumes that all costs are variable: “In a TELRIC Methodology, the “long run” used shall be a period long enough that all costs are treated as variable and avoidable.” (*Local Competition Order*, ¶692) Moreover, Joint CLECs noted that Staff failed to shed any useful light on the question of how much fixed and sunk costs (if any) would be appropriate in an efficient, forward-looking network. They noted that Staff (*i.e.*, Staff witness Liu) failed to cast a critical eye on SBC’s actual engineering practices or on the manner in which SBC has determined how much fixed and sunk costs (*i.e.*, excess capacity) should be incurred. They pointed out that Messrs. Starkey and Fischer had explained that the efficient forward-looking network employing the most efficient telecommunications technology available will have much less need to incur significant fixed and sunk investment (that is not currently serving customer demand) than has historically been the case in SBC’s actual network. (Joint CLEC Reply Br., p. 48)

Joint CLECs pointed out that Staff’s criticisms of usable capacity fill factors ignored the fact that the TELRIC principle is to base UNE prices on the efficient network. They reiterated that “usable capacity” fill represents the point of most efficient utilization of the network, and properly incorporates the TELRIC requirement that the efficient forward-looking network be sized based on “a reasonable projection of the actual total usage”. (*Local Competition Order*, ¶682) They noted that Staff’s arguments took into account the need for the network to be sized to meet a reasonable projection of future demand (on the capacity side), but completely ignored

that future demand in the fill factor calculation. Joint CLECs stated that Staff's criticisms were inconsistent with Dr. Liu's theoretical "forward-looking actual fill" approach, which took into account both future demand and the capacity needed to serve it. They noted that this was true of the discussion at pages 51-54 of Staff's Initial Brief, because it suggested that the projected growth in demand over time (for which the network is sized) should be ignored in the fill factor calculation. Joint CLECs reiterated that this was in complete contradiction of Dr. Liu's "forward-looking actual fill factor" approach as it was described at pages 55-58 of Staff's Initial Brief. (Joint CLEC Reply Br., p. 49)

Joint CLECs emphasized that a fundamental flaw in Staff's (Dr. Liu's) criticisms was the inappropriate mixing of static and dynamic concepts of network capacity and demand. They noted that Dr. Liu did not make this same mistake in her theoretical exposition of her own proposed "forward-looking actual fill factor" method. Joint CLECs noted that it is critical that both primary components of the analysis – demand and network size – be consistent, *i.e.*, both must be either static or dynamic, when developing the fill factor in accordance with TELRIC. They stated that once this fact is recognized, it becomes apparent that usable capacity fill factors (or target fill factors) are appropriate fill factors in an efficient, forward-looking network for which all costs are variable. That is, if (1) both the size of the forward-looking network and the demand accommodated by that network are analyzed at a specific point in time and (2) the network is sized specifically to meet that level of demand, it is only logical that the efficient network would be sized so as to maximize its capabilities, *i.e.*, operation at the usable capacity level. (AT&T/Joint CLEC Ex. 1.3, p. 8; Joint CLEC Reply Br., pp. 49-51)

Finally, Joint CLECs responded to Staff's position on Joint CLECs' argument that the fill factor approach used for TELRIC studies should be consistent with the fill factor approach used for LRSIC studies. (Staff Initial Br., pp. 47-48) Joint CLECs pointed out that Staff's position seemed inconsistent with Staff's position in the recently completed Part 791 rulemaking, Docket 99-0535, in which the Commission's LRSIC rules were under review. Joint CLECs noted that in that case, CLECs raised the same issue about the need for consistency between the inputs used in LRSIC and TELRIC studies, and Staff agreed that the inputs used in LRSIC studies and in TELRIC studies should be consistent. However, in that case, Staff did not believe that the LRSIC rulemaking, Docket 99-0535, was the most appropriate venue in which to establish consistent inputs. Instead, Staff pointed the Commission to its next available opportunity to review SBC's TELRIC cost studies, and indicated that that proceeding (which has turned out to be this docket) would be the most appropriate place to insure consistency. Joint CLECs objected to the fact that in the proceeding that Staff said would be the appropriate place to develop consistent inputs for use in SBC's LRSIC and TELRIC studies (*i.e.*, this one), Staff was taking the position that consistency should not be achieved in this case, either. (Joint CLEC Reply Br., pp. 51-52)

d. Joint CLECs' Response to SBC's Proposal to Use its Current Actual Fill Factors

Joint CLECs strongly opposed SBC's proposal to use its current actual fill factors in calculating its UNE loop prices. (See SBC Ex. 4.0, p. 9; SBC Ex. 8.0, p. 4) They stated that adoption of SBC's proposal would have a tremendous upward impact on the prices that CLECs pay to SBC to lease UNE loops that the CLECs employ to provide competitive local exchange

service to retail customers in SBC Illinois' service area. They stated that use of SBC's current actual fill factors would not be compliant with the FCC's TELRIC requirements. (Joint CLEC Initial Br., pp. 66-67)

Joint CLECs stated that the fundamental premise behind SBC's proposal is that SBC's current actual fill factors are equivalent to the utilization that would be experienced on a newly-constructed, forward-looking network that used the most efficient telecommunications technology available, taking into account reasonable projections of reasonably foreseeable capacity requirements. They stated that this proposition is illogical on its face. They noted that SBC's existing network has been designed and constructed over a period of at least 100 years, using myriad engineering techniques and technologies. (AT&T/Joint CLEC Ex. 1.0, p. 176) The existing network has been designed and constructed to serve projected demand levels that have proved to be too high in some cases, too low in others, and fairly accurate in still others. In some areas demand levels have receded due to economic or demographic changes leaving excess capacity. SBC's existing network has been supplemented and re-designed to account for population growth that has shifted, expanded and contracted literally hundreds of times over its more than 100 year history. (*Id.*) Joint CLECs contended that SBC's existing network does not mimic a "forward-looking network", and that the actual level of fill that SBC is able to maintain on that network at any given point in time bears no relationship to the utilization rates that could be achieved in an efficient, forward-looking network that was designed and costed consistent with the FCC's TELRIC rules. (*Id.*; Joint CLEC Initial Br., p. 67)

Joint CLECs stated that in the past 30 years alone, SBC Illinois has substantially changed the manner by which it engineers and builds its local loop plant, changing from multi-party lines and multi-appearance plant to a more economical and efficient Carrier Serving Area ("CSA") design. They noted that over the years, SBC Illinois has also adopted newer, more efficient design practices and installed newer and more efficient equipment, which enable it to serve its customers with fewer facilities and reduced levels of spare capacity in the network. They pointed out, however, that a large portion of SBC's existing network was built before newer, more efficient design practices and technologies were developed, and those older portions of its network still represent design and technology that is decades old. Thus, when SBC simply measures its current actual fill at any given point in time, some portion of the fill factors that results is directly impacted by the presence of the older, less efficient technology. (AT&T/Joint CLEC Ex. 1.0, pp. 176-77) As another example, Joint CLECs observed that today, and on a going forward basis, SBC Illinois only deploys next generation digital loop carrier ("NGDLC") equipment in its outside plant when it replaces traditional copper feeder cables with fiber optics and loop electronics (*i.e.*, digital loop carrier ("DLC")). However, within its existing network, SBC continues to use and maintain older, less efficient DLC equipment. Joint CLECs stated that newer NGDLC equipment requires fewer facilities to provision the same number of services. As a result, NGDLC equipment requires far less spare capacity to meet consumer demand and allows SBC to more closely match its facility investments to more precise levels of consumer demand, *i.e.*, it allows SBC to maintain higher levels of utilization than is possible with older equipment. They stated that, additionally, NGDLC is far more modular than SBC's older DLC equipment. Thus, with NGDLC equipment, SBC can initially install a relatively small amount of capacity, and then add to that capacity as demand materializes. As a result, NGDLC equipment permits a reduction in the amount of spare capacity that is needed in the network at any point in time. Older DLC equipment and systems are not so modularly designed and require a larger

amount of spare capacity to meet growth in demand (*i.e.*, older DLC systems are not capable of maintaining the same higher levels of utilization as newer NGDLC equipment). (*Id.*, pp. 177-78)

Joint CLECs stated that it would only be by coincidence that SBC's current actual fill factors matched the utilization levels of a newly-constructed, efficient, forward-looking network. They stated that SBC, which has the burden of proof to show that its proposed costs meet TELRIC requirements (47 C.F.R. §51.505(e)), has not shown that this coincidence has occurred. They stated that the actual fill factors in SBC's existing legacy network are levels of utilization that do not reflect the newer equipment, and more efficient network design, that should be used exclusively in forward-looking cost studies comporting with the FCC's TELRIC requirements. (AT&T/Joint CLEC Ex. 1.0, p. 179) Joint CLECs concluded that SBC's approach does not comport with the FCC's TELRIC requirement that UNE prices shall be based on a "reconstructed local network [that] will employ the most efficient technology for reasonably foreseeable capacity requirements." (*Local Competition Order*, ¶685)

Joint CLECs pointed out that witnesses for both CUB and the Attorney General also testified that use of SBC's actual fill factors to calculate its UNE prices would not be representative of an efficient, forward-looking network. (AG Ex. 1.0, pp. 33-36; CUB Ex. 1.0, pp. 16-25) One reason this is the case is that there is less population in some areas than the network was originally designed for. (AG Ex. 1.0, p. 35) Both Attorney General witness Mr. Dunkel and CUB witness Ms. Baldwin pointed out that SBC's low actual fill factors would result in SBC customers paying for an excessive amount of spare capacity on SBC's network. (AG Ex. 1.0, p. 35; CUB Ex. 1.0, pp. 18-20) Ms. Baldwin noted that SBC's long-standing planning criteria do not correspond with efficient forward-looking practices nor with the business practices of an efficient competitor (which a TELRIC study is intended to model), which would be to adjust capital investment decisions to correspond better with changing consumer demand. (CUB Ex. 1.0, p. 20) She pointed out that designing a TELRIC model with the large percentage of spare capacity that SBC proposes would violate basic principles of economic efficiency. (*Id.*)

Joint CLECs emphasized that Commission Staff witnesses testified that SBC Illinois failed to demonstrate that its current actual fill factors are the same as the fill factors that would be found in an efficient, forward-looking network or that its fill factors satisfied the FCC's TELRIC requirements. They noted that Staff witness Jeffrey Hoagg explained that SBC Illinois' proposed method of estimating forward-looking projected fill factors is not conceptually consistent with TELRIC requirements. (Staff Ex. 1.0, pp. 25-26) He noted that there are at least two fundamental problems with SBC's position that the best estimators of projected TELRIC fill factors are SBC's current actual fill factors, and that each of those problems provide sufficient grounds for the Commission to reject SBC Illinois' proposed fill factors: (1) SBC presented no evidence that its actual fills are equivalent to (or consistent with) those of an efficient firm; and (2) SBC's proposed method of calculating per unit costs for each element directly violates the TELRIC requirement that the divisor used to calculate per-unit costs reflect a reasonable projection of the forward-looking demand for the element; rather, SBC divides element costs by current demand levels for each element. (*Id.*, p. 27) Mr. Hoagg concluded that, due to SBC's failure to adhere to TELRIC principles, SBC's approach underestimates the proper TELRIC fill factors and over-estimates TELRIC-based UNE rates. (*Id.*, p. 28) This occurs because (i) SBC overestimates the numerator of the per-unit cost calculation by using something more than current demand levels to estimate aggregate costs associated with each element (that is, SBC

does not size the model network to efficiently meet current demand, but simply models costs based on the current size of the network), while at the same time (ii) SBC *understates* the *denominator* of the per-unit calculation to the extent that the current demands SBC uses in its fill factor calculation are less than projected demand levels. (*Id.*, pp. 28-29)

Joint CLECs stated that Staff witness H.R. Green, Chief Telecommunications Engineer of the Commission, had comprehensively addressed the fact that SBC's current actual fill factors are not the same as the fill factors that would be expected in an efficient, forward-looking network. They pointed out that Mr. Green testified that "current embedded fill rates are reflective of either historical or current fills and are not necessarily reflective of an efficient network. Thus, current embedded fills would be inappropriate to use as fill factors for determining UNE rates." (Staff Ex. 10.0, pp. 6-7) Mr. Green also concluded that SBC's "current embedded fills, however, have not been demonstrated . . . to be consistent with an efficient, forward-looking network." (*Id.* at 7) This Staff witness further explained that:

The reason that the use of current embedded fills is not necessarily consistent with an efficient, forward-looking network is that there is no evidence that the current fills are indicative of an efficient network today, let alone a forward-looking network. The current embedded network from which the current fills have been determined is a network that has evolved over decades. . . . Facilities engineered in the past did not include the consideration of the current or future demands for developing technologies. As a matter of fact, today's demands are causing the telecommunications carriers to redesign some of the existing plant. . . . [T]he type of efficient forward-looking network planning expected in a TELRIC study *could not* be planned using the planning tools and capabilities available to the engineers decades ago who designed much of the embedded network. (Staff Ex. 10.0, pp. 8-9; emphasis in original)

Based on these considerations, Staff witness Mr. Green concluded that SBC's current embedded network does not reflect a forward-looking efficient network. (*Id.*, p. 9)

Joint CLECs noted that Staff witness Mr. Green also disagreed with SBC's assertion that its actual fills are fairly consistent over time and that the current utilization levels on SBC Illinois' existing network are the best predictors of future utilization levels. (*Id.*, p. 9) He pointed out (as did Ameritech in the TELRIC I case), that there are demand shifts over time due to factors such as changes in population size, growth, density and changes in technology; as a result, SBC's "confidence that fills are fairly consistent over time is misplaced." (*Id.*, p. 10)

Joint CLECs disputed SBC's assertion that its actual fill factors have been fairly constant over time (SBC Ex. 8.0, pp. 5, 24). Joint CLECs stated that SBC only provided actual fill factor data for the period December 31, 1998 through December 31, 2001. (SBC Ex. 8.0, p. 24 and Sched. RSW-11) They stated that this limited data series is woefully inadequate to substantiate any claim that SBC's fill factors are constant over time. They also stated that even if SBC's assertion could be substantiated by data, it would not establish that SBC's current actual fill factors are representative of the utilization levels that would be found in an efficient, forward-looking network but in fact would tend to establish just the opposite. Joint CLECs noted that Staff witness Mr. Green explained that:

These time intervals are far too short to reasonably demonstrate the changes in fills of SBCI's massive embedded network over time. . . . Due to the great size of SBCI's embedded network, it would be reasonable to expect the fill rate of the current embedded network that has been built over decades not to change very rapidly over a relatively short period. Nonetheless, even if the fill rate were proven to be consistent over time, this embedded fill used as the fill factor would truly be backward looking. The size of SBCI's current embedded network masks any efficient designs and renders the embedded fills a poor indicator for a forward-looking efficient network. The fill factor would be based on the embedded network that evolved from past practices, old technologies, past forecasts and past demands, hence backward-looking when we should be basing the fill factor on a forward-looking efficient network. (Staff Ex. 10.0, pp. 10-11)

Joint CLECs cited additional reasons why SBC's current actual fill factors (even if they have been fairly constant over an extended period of time) are not representative of the utilization that would be expected in an efficient, forward-looking network. They referred to the following testimony of Staff witness Mr. Green as identifying some of these factors:

[T]echnologies change, forecasts are only best estimates that may not be borne out by actual events, and the accuracy of present worth analyses are affected by interest rates that fluctuate over time. With all three of these inputs changing with time, an embedded network that may have been efficient when designed may no longer be an efficient network today and no longer forward-looking. Therefore, SBCI's current embedded network of various design factors would invariably have different fill rates from an efficient, forward-looking network totally designed today. (Staff Ex. 10.0, pp. 11-12)

[SBC] has been provisioning cables for decades and many of these older cables are still in use today. There are cables that were previously used to serve factories, businesses, and residential areas that are much smaller or no longer exist and, as a result, produce much less demand upon the network than before. The current embedded fill on these cables is, therefore, disproportionately low. On the other hand, there are also areas where the fill would be disproportionately high, such as in urban renewal areas that could not have been part of the original forecast. Either of these outcomes, of course, would be inconsistent with an efficient, forward-looking network. (*Id.*, p. 12)

Joint CLECs emphasized that Mr. Green's opinions on these topics were important because Mr. Green was employed by Illinois Bell from 1970 to 1984, in network engineering positions for much of that time. (Staff Ex. 10.0, p.3) Thus, Mr. Green actually has as much or more personal experience with the historic engineering practices that have shaped SBC Illinois' legacy network than the witnesses appearing on behalf of SBC in this proceeding. (Joint CLEC Initial Br., p. 74)

Joint CLECs stated that while SBC witnesses, in response to the testimony of Staff, CLEC and intervenor witnesses, attempted to defend the prudence of the network engineering and design practices employed by SBC over the years (*e.g.*, SBC Ex. 4.1, p. 38; SBC Ex. 8.1, p.

5), the prudence of SBC's prior practices was irrelevant. They stated that none of the points made by the Staff, CLECs and other intervenor witnesses who explained why SBC's current actual fill factors are not representative of an efficient forward-looking network, were intended to suggest that any of the design, engineering and installation decisions made by SBC over the past 30 or more years that its existing network has been constructed were imprudent or inefficient, based on information available to SBC at the time, on design and engineering practices then in place, or on technologies then available. (See, e.g., Staff Ex. 32.0, pp. 5-6) Nor are the conclusions of these witnesses, that SBC's current actual fill factors do not represent the utilization rates of a newly-constructed, efficient, forward-looking network, dependent on whether SBC's decisions and actions were prudent at the various times they were made. Rather, these witnesses were simply explaining that what was efficiently engineered or designed based on an efficient standard in the past may no longer be deemed an efficient network design based on today's standards. Rather, due to unexpected events, including, but not limited to, changes in technology that impact network sizing guidelines, other technology advances, growth in demand or changes in the nature of the customers in a particular geographic area, Joint CLECs argued that a network capacity that was deemed efficient and forward-looking at the time of deployment, may no longer be deemed efficient or forward-looking based on current circumstances. (Staff Ex. 32.0, pp. 3-6; Joint CLEC Initial Br., pp. 74-75)

Joint CLECs pointed out that Staff economist Dr. Genio Staranczak explained that SBC's low fill factors are likely an inefficient vestige of SBC's days as a monopoly provider of service under rate of return regulation. Dr. Staranczak explained that under rate of return regulation, SBC was regulated based on the size of its rate base; consequently, SBC could earn a rate of return on spare capacity. He stated that as a result, under rate of return regulation, there was not as strong an incentive to be as frugal with spare capacity as there is in unregulated industries. (Staff Ex. 2.0, pp. 18-19) Dr. Staranczak explained that although SBC is now under price-cap regulation, the high levels of spare capacity placed during the era of rate of return regulation remain embedded in SBC's network. (Only about one-third of SBC's existing network has been installed since SBC moved to price cap regulation. (Tr. 304)) The fact that much of SBC's existing network was installed under rate of return regulation has negative implications for the efficiency of its network. Dr. Staranczak testified that:

Much of the plant SBCI has currently in place was put in place when it was a rate of return regulated monopolist. This plant therefore reflects practices typical of a rate of return regulated monopolist and does not reflect what an efficient forward looking firm would do. I should also note that it takes time to change old habits. So if rate of return engineering guidelines suggested a certain amount of spare capacity then these guidelines may not immediately be changed under price cap regulation. Planners who were comfortable under the old spare capacity guidelines would lobby to retain these guidelines. So even under price caps, SBCI would not necessarily be making the most efficient investment decisions. (Staff Ex. 2.0, pp. 19-20)

SBCI's embedded fills do not reflect fills for an efficient forward-looking firm. SBCI's embedded fills in part reflect fills for a rate of return regulated monopoly. . . . Furthermore, former monopolies are not known for their efficiency. . . . Use of

embedded fills reflects historical behavior and not what is possible from a forward-looking efficient carrier. (*Id.*, pp. 20-21)

Joint CLECs pointed out that SBC presented no evidence of changes in design or engineering practices when it moved from rate of return regulation to price-cap regulation. To the contrary, SBC indicated that many of its engineering and design standards have been in place for many years. (Joint CLEC Initial Br., p. 76)

Joint CLECs identified other evidence that SBC's current actual fill factors are not representative of an efficient forward-looking network, should not be adopted for purposes of calculating SBC's UNE prices, and may even be subject to question as to their accuracy. Joint CLECs noted that SBC's long-standing design practice of installing 2.25 pairs (lines) per household for much of its network, which is a principal driver of its actual distribution fill factors that are below 50%, appears excessive in light of potential demographic changes in the demand for telephone service. The record shows that households today are using cellular phones, DSL and cable modems in lieu of second wirelines. (CUB Ex. 1.0, p. 19; AT&T/Joint CLEC Ex. 1.3, pp. 15-16; Staff Ex. 22.0, pp. 16-17) SBC itself has identified customer use of such alternatives as factors that may reduce demand on its network facilities. (SBC Ex. 13.0, pp. 27-35) Joint CLECs stated that while it would be a gross exaggeration to suggest that these alternatives will strand or render obsolete substantial portions of SBC's embedded network, it is reasonable to conclude that an efficient competitor designing a forward-looking network would take the reduced demand for wireline services per household into account in determining the amount of spare capacity to design into the network. They stated that as a result, SBC's historic practice of installing two lines per living unit is becoming outdated. (AT&T/Joint CLEC Ex. 1.3, p. 7)

Joint CLECs also pointed out that SBC's fill factor approach essentially assumes that its network will have substantial excess capacity forever. They stated that it might be reasonable to design a new network to have 50% excess capacity at the outset, but that excess capacity will be used up as growth in demand manifests. Yet by proposing to use its current actual fill factors for TELRIC purposes, SBC effectively assumes that the efficient forward-looking network would have the same level of excess capacity indefinitely. Joint CLECs stated that this is inconsistent with the FCC's requirement that TELRIC calculations be based on "a reasonable projection of the actual total usage of the element" and "reasonably foreseeable capacity requirements." (*Local Competition Order*, ¶¶682, 685) They noted that, as Staff witness Mr. Hoagg pointed out, the FCC's TELRIC methodology requires reasonable projections of demand for an element, which is not the same as the current demand for the element. (Staff Ex. 1.0, pp. 25-26)

Joint CLECs also contended that SBC's current actual fill factors were not representative of an efficient, forward-looking network because as calculated, SBC current actual fill factors (at least for copper facilities and DLC chassis) include "defective pairs" in the denominator as available capacity. (See AT&T/Joint CLEC Ex. 1.2, pp. 98-99) Joint CLECs stated that on a statewide basis, the percentage of defective pairs in SBC's copper feeder and copper distribution "usable pairs" is excessive and has been increasing, and exceeds the percentage of defective

pairs that would be found in an efficient, forward-looking design.³ (*Id.*, p. 112; Joint CLEC Initial Br., pp. 78-79) Joint CLECs stated that while in theory defective pairs can be repaired and thus converted into available capacity, SBC Illinois' actual percentages of defective pairs are too high to be seriously considered forward-looking. (*Id.*) They stated that the high percentage of defective pairs in SBC's actual fill factors unreasonably increases the denominator of the fill factor calculation and lowers the actual fill factors. (*Id.*)

Joint CLECs further noted that SBC's own internal guidelines establish that SBC will not always seek to reclaim defective pairs and thereby convert them back into usable capacity. SBC classifies some defective pairs as uneconomical to recover and hence unusable. (AT&T/Joint CLEC Ex. 1.2, p. 113) For example, SBC typically will not attempt to recover single defective pairs in underground and buried cable, defective pairs in a cable section between manholes, defective pairs in a section where adequate other spare capacity exists, or defective pairs in areas where repair of the defective pairs would be insufficient to serve anticipated growth in demand. (*Id.*, pp. 119-123; see TDS Cross Exs. 23P and 24P)

Another point raised by Joint CLECs was that whereas all indications are that an efficient, forward-looking network using the most efficient network configuration and technology available would have less, rather than more, spare capacity than the existing legacy network, SBC's actual fill factors have in fact been decreasing over the past several years. In fact, from December 2000 to December 2001, SBC's working copper distribution pairs fell while its available capacity increased substantially, thereby dropping the fill factor by a noticeable amount.⁴ (Joint CLEC Initial Br., pp. 79-80; SBC Ex. 8.0, Sched. RSW-11 Rev. and Tr. 576-77) Joint CLECs stated that this drop in SBC Illinois' fill factors during 2001 is especially suspect because SBC chose to use January 2002 data for the current actual fill factor values that it proposes be adopted in this case. (Joint CLEC Initial Br., p. 80)

Joint CLECs stated that SBC Illinois is asking the Commission to adopt fill factors that for many components, including the copper distribution portion of the network, are at or below 50%. They pointed out that the Commission recently comment adversely on the implications of fill factors below 50%, in its comments to the FCC on the TELRIC NPRM:

Most ILEC facilities were placed when the telecommunications industry was a regulated monopoly, and placement of an efficient network was not necessarily a primary objective. Presuming that an ILEC's network is efficient will probably tend to increase UNE rates. For example, high fill factors would exist in an

³The data on numbers and percentages of defective pairs in the network is claimed by SBC to be proprietary. Some of this data is reported at page 78 of Joint CLECs' Initial Brief (PROPRIETARY version).

⁴The actual numbers referred to here are claimed by SBC to be proprietary, but are shown at pp. 79-80 of Joint CLECs' Initial Brief (PROPRIETARY version).

efficient network, while a fill factor of less than 50% would indicate that the network was not designed for efficiency.⁵

Joint CLECs concluded that SBC Illinois' current actual fill factors have not been demonstrated to be the fill factors that would be expected in an efficient, forward-looking network using the most efficient telecommunications technology available, and have not been shown to match the utilization rates that would be expected in an efficient, forward-looking network. Joint CLECs urged that SBC's proposal to use its current actual fill factors in its TELRIC studies to calculate its UNE rates be rejected.

In their Reply Brief, Joint CLECs responded to various arguments made by SBC in attempting to show that its existing network and its current fill factors represent the efficient, forward-looking network required for TELRIC purposes. Joint CLECs responded to SBC's statement that its "engineers use rigorous planning methods to ensure that facilities are installed in a timely and economical manner." (SBC Initial Br., p. 39) Joint CLECs stated that even if this is true about SBC's methods today, it does nothing to establish that SBC's existing embedded network, which is the product of all the design, installation and equipment selection standards and decisions over the past 30 or more years, represents the efficient, forward-looking network using the most efficient telecommunications technology currently available and the most efficient network configuration given the locations of existing wire centers and customers, that an efficient provider would design today. They stated that, in fact, the record shows the opposite is true. (Joint CLECs Reply Br., p. 26)

Joint CLECs also responded to SBC's assertion that its engineering practices are driven by the "CSA/SAC concept," which "has been the industry standard for decades." (SBC Initial Br., p. 39) Joint CLECs pointed out that the testimony cited by SBC did not support this assertion. They further noted that the record indicates that parts of SBC Illinois' network were engineered prior to adoption of the CSA approach. (Joint CLEC Reply Br., pp. 26-27; AT&T/Joint CLEC Ex. 1.0, pp. 176-77) With respect to SBC's assertion that it has engineered an efficient amount of spare capacity into its network (SBC Initial Br., p. 40), Joint CLECs noted that even if SBC Illinois is installing an efficient, forward-looking amount of spare capacity today, the amount of spare capacity in SBC's existing network today is simply a mathematical calculation that is the result of decades of design decisions and, more importantly, decades of demand growth and declines in various areas throughout SBC's service territory, as witnesses for Staff, the Attorney General and CUB all demonstrated. (Joint CLEC Reply Br., p. 27)

Joint CLECs further responded to this assertion by reiterating that SBC's engineering practices with respect to spare capacity, which are built on the concepts of installing 2.25 pairs per living unit and on installing capacity to meet "ultimate" demand, do not necessarily represent efficient, forward-looking practices, for a number of reasons. First, they argued that factors such as customer switching to cable telephony or wireless service call into serious question the

⁵Initial Comments of the ICC, *In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173 (Dec. 16, 2003), pp. 33-34 ("TELRIC NPRM Comments").

continued need to install facilities into an area using a ratio of 2.25 pairs per living unit. They noted that some households (although probably not a lot, for reasons articulated by Staff witness Dr. Staranczak and summarized at pp. 67-68 of Staff's Initial Brief) have or will switch from wireline service to cable telephony; and some customers (but again, probably not a lot (see *Id.*) have or will switch completely from wireline service to wireless service, and a greater number are likely to replace second wireline lines with wireless service (or not order a second wireline, choosing instead to use wireless). Joint CLECs contended that the overall impact of these trends is unlikely to be abandonment and massive stranding of SBC's wireline network, but they clearly indicate that SBC's long-standing practice of installing 2.25 lines per living unit is probably now excessive. (Joint CLEC Reply Br., p. 28)

Joint CLECs also stated that SBC's assertion that it is always more efficient and economical to install all the capacity needed to serve projected long-term or "ultimate" demand at the outset, rather than installing additional capacity at a later date as demand grows (SBC Initial Br., p. 40), cannot and should not be categorically accepted in all situations. They noted that by installing the capacity required to serve projected "ultimate" demand at the outset, SBC forces customers (both retail and wholesale) to pay for excess capacity until it is actually needed to serve demand. They stated that whether this approach is economic from the point of view of those customers depends on a number of variables, including the projected date or dates at which additional demand is projected to manifest itself and additional capacity would otherwise be needed (if not installed today), the incremental cost of installing the additional capacity needed to meet future demand at a future date versus today, and the discount rate (which would be used to determine the present value to today's customers of expenditures made at a future date to install additional capacity). Installing today the additional capacity projected to be needed to meet ultimate future demand is efficient and economical only if the present value of the carrying costs on that investment over time will be less than the discounted present value of the incremental cost of installing that capacity some years in the future when it is actually warranted by demand growth. Joint CLECs pointed out that SBC has provided no indication in its evidence that it performs this type of economic calculation in deciding whether and how much spare capacity to install at the outset. They stated that to the extent that SBC does not perform this analysis, it may be installing inefficient and uneconomical amounts of spare capacity. (Joint CLEC Reply Br., pp. 28-29)

In their Reply Brief, Joint CLECs responded to SBC's assertion that its existing fill levels are a reasonable projection of efficient, forward-looking fills because "The fill levels for the distribution and feeder component of SBC Illinois' network plant have been very stable over time." (SBC Initial Br., p. 41) Joint CLECs pointed out that SBC did not substantiate this assertion with data. Rather, SBC attempted to support this assertion solely by a citation to a statement in the testimony of SBC witness Mr. White that "The fill levels for these components have been very stable over time." (*Id.*; SBC Ex. 8.0, p. 24) They noted that the only fill factor data SBC presented was for the three-year period from year-end 1998 to year-end 2001 and by month for the period October 2001 – September 2003 (*Id.* and Schedules RSW-10 and RSW-11 Revised), and that no data was presented for any prior period. (Further, even this limited data set showed SBC's actual fill factors were declining.) Joint CLECs also noted that SBC witness Mr. Palmer had testified that as recently as 1996, actual fill data was not available from SBC Illinois' systems, and that SBC lacked historical fill data. (SBC Ex. 14.0, p. 5) They further noted that SBC witness Mr. Palmer testified in the TELRIC I case that SBC had determined that actual fill

factors vary over time as demand shifts occur. They pointed out that Staff witness Bud Green, who was an Illinois Bell engineering employee for an extended period beginning in the 1970's, concurred with Mr. Palmer that there are demand shifts over time due to factors such as changes in population size, growth, density, and changes in technology (e.g., growth in multiple residential lines for internet, faxes, etc.), and that as a result, Mr. Green concluded that current embedded fills cannot be used as predictors of an efficient, forward looking network and SBC witness Mr. White's confidence that fills are fairly consistent over time is misplaced. (Staff Ex. 10.0, p. 10)

Joint CLECs stated that since SBC's assertion that its fill factors have been consistent over time is at best unsubstantiated and at worst wrong, SBC's subsequent conclusion that is premised on that assertion ("Since SBC Illinois' fills have remained relatively stable, they *do* represent an efficient, forward-looking estimate of network utilization" (SBC Initial Br., p. 41)) is also baseless. Joint CLECs also re-emphasized that in any event, whether or not SBC's actual fill factors have been consistent over time does not show that they should be used for TELRIC purposes (Joint CLEC Reply Br., pp. 30-31), because, as Staff witness Mr. Green testified:

Nonetheless, even if the fill rate were proven to be consistent over time, this embedded fill used as the fill factor would truly be backward looking. The size of SBCI's current embedded network masks any inefficient designs and renders the embedded fills a poor indicator for a forward-looking efficient network. The fill factor would be based on the embedded network that evolved from past practices, old technologies, past forecasts and past demands, hence backward-looking when we should be basing the fill factor on a forward-looking efficient network. (Staff Ex. 10.0, p. 11)

Joint CLECs also took issue with SBC's assertion that its actual fill factors are consistent with those of other network providers and with those used by other states in TELRIC studies. (SBC Initial Br., p. 41) Joint CLECs noted that SBC relied on a chart purportedly showing copper distribution fill factors approved by commissions in 18 other states. (*Id.*, p. 42) Joint CLECs noted that information from any of the other Ameritech-SBC Midwest states was missing from this chart. They pointed out, however, that the underlying data (a chart sponsored by SBC witness Mr. Palmer (SBC Ex. 14.0, Sched. WCP-R2)) showed the distribution fill factors approved for the SBC companies in Wisconsin, Michigan and Ohio to be 70%, 75% and 85%, respectively. (See also AT&T/Joint CLEC Ex. 1.0, pp. 208-09) They noted that since the SBC companies in these other states operated as part of the Ameritech corporate family from 1984-1999 before the SBC merger, much of their networks have been built over the last 20 years using the same engineering standards and methods as has the SBC Illinois (Ameritech Illinois/Illinois Bell) network. Further, Joint CLECs mentioned that the other SBC Midwest states have comparable population density and terrain to Illinois, which should lead to comparable network costs. (Staff Initial Br., p. 33; see also Joint CLEC Ex. 2.0, pp. 13-15) Joint CLECs also pointed out that the underlying chart showed 18 other states with ordered fill factors higher than the values listed on the chart on page 42 of SBC's Initial Brief. (Joint CLEC Reply Br., pp. 31-32)

Joint CLECs also stated that the accuracy of the data on Mr. Palmer's chart was suspect. They noted that the data for at least 7 of the states, and maybe more, did not come from (and could not be ascertained from) state commission orders, but rather was compiled by calling up

unidentified persons at the applicable ILECs. (Tr. 928-932) Additionally, some of the data was taken not from state commission orders but from FCC orders in Section 271 cases that found the RBOC's rates were generally consistent with what application of TELRIC principles would produce. Joint CLECs pointed out that in a Section 271 case (due to the 90-day time limit) the FCC does not conduct a *de novo* review of the RBOC's rates. Instead, the FCC often "benchmarks" the subject RBOC's UNE rates against those of other RBOCs who have received Section 271 approval, without looking into the individual components. Further, some RBOCs have satisfied this Section 271 criterion by simply agreeing to an arbitrary reduction in their UNE rates to bring them within the acceptable benchmark range. (Tr. 925-27; see TELRIC NRPM, ¶¶26-28) (Joint CLEC Reply Br., p. 32)

Joint CLECs also responded in their Reply Brief to SBC's attempt to defend the high level of defective pairs in its network. SBC stated that defective pairs are recovered only when economically appropriate. (SBC Initial Br., p. 43) Joint CLECs responded that SBC was missing the point of the Joint CLECs' concerns over the level of defective pairs in SBC's network, for several reasons. First, they argued that even if defective pairs are recovered when "economically appropriate", the fact remains that the percentages of defective pairs in SBC's feeder and distribution networks are much higher than one would expect (or tolerate) in a newly-installed, efficient network. (AT&T/Joint CLEC Ex. 1.2, p. 112) Second, they argued that the fact that defective pairs in SBC Illinois' network have been increasing in recent years, both in absolute terms and as a percentage of available and usable pairs, would seem to be the opposite of the trend one would expect in an efficient, forward-looking network. Third, while Joint CLECs did not dispute that defective pairs should only be recovered when economically appropriate, they stated that this means that there are defective pairs in SBC Illinois' network that will never be recovered. Instead, SBC will choose simply to install new facilities instead of repairing the defective pairs. Joint CLECs stated that this means that SBC's fill factor numbers are inflated by defective pairs that are counted as available capacity because they could in theory be used to serve future demand, but in fact never will be, because SBC will determine that it is not "economically appropriate" to repair these defective pairs, but rather will install new capacity. (Joint CLEC Reply Br., pp. 33-34) Joint CLECs emphasized that there are a substantial number of situations in which SBC does not attempt to recover defective pairs. Among other things, it appears that there needs to be a minimum number of defective pairs in a feeder or distribution section before SBC will attempt to recover the defective pairs. (See AT&T/Joint CLEC Ex. 1.2, pp. 119-123; TDS Cross Exs. 23P and 24P; Tr. 600-614) Joint CLECs noted that there is also no indication that, having made the decision to install new facilities rather than to attempt to repair defective pairs, SBC removes the bypassed defective pairs from "available capacity." Thus, they contended that defective pairs that customers have been paying for on the theory that they represented spare capacity but which have been bypassed when it became necessary to use the spare capacity, continue to be carried as spare capacity. (Joint CLEC Reply Br., p.34)

Joint CLECs concluded in their Reply Brief that the facts relating to SBC's treatment of defective pairs further show that SBC does not maintain an efficient amount of spare capacity and that its current actual fill factors do not represent the utilization to be expected in an efficient, forward-looking network, and that under SBC's fill factor proposals, customers would pay for an excessive amount of spare capacity. (*Id.*, pp. 34-35)

e. Dr. Liu's Proposed Fill Factor Values

Joint CLECs opposed Staff witness Dr. Liu's proposal that the Commission use a set of fill factor values that she referred to as "forward-looking actual fill" factors in calculating SBC Illinois' UNE rates in this proceeding. They noted that she testified that she was unaware of any other state commissions that had used her concept of "forward-looking actual fill." (Tr. 987)

Joint CLECs recounted that although Dr. Liu submitted direct testimony on behalf of Staff in May 2003 as part of Staff's direct case, her testimony did not address fill factors. They noted that in Staff's May 2003 direct case, Staff witness Mr. Green presented Staff's position that the Commission should continue to use the target fill factor values that it adopted in the TELRIC I Order. (Tr. 978-980) Dr. Liu did not provide any testimony on fill factors until Staff's rebuttal testimony, submitted January 20, 2004, at which time she introduced for the first time her forward-looking actual fill concept, which she described as a "new fill concept." (Staff Ex. 17.0, p. 35; Tr. 986-87) However, she did not at that time present any actual proposed values of "forward-looking actual fill" for the Commission's consideration in this case. (Staff Ex. 17.0, p. 38; Tr. 988-89) Instead, she represented to the Commission that she was still gathering information that she needed to calculate values for forward-looking actual fill, and would present her actual proposed values in Staff's surrebuttal testimony to be submitted on February 20, 2004. (Staff Ex. 17.0, p. 38; Tr. 988-89) Joint CLECs noted that in cross-examination, Dr. Liu testified that when she stated in her January 20, 2004 rebuttal testimony that she was still in the process of collecting information needed to calculate specific values for "forward-looking actual fill" and would present her actual value in her surrebuttal testimony due February 20, she did not in fact expect to be able to collect the information she needed to calculate "forward-looking actual fill" factors. (Tr. 990-991)

Joint CLECs noted that Dr. Liu in fact did present proposed fill factor values in her surrebuttal testimony submitted on February 20, although in that testimony she stated that she had been unable to obtain the information needed to calculate "forward-looking actual fill" factors in the manner she considered theoretically appropriate, and thus could offer only a "proxy" of what "forward-looking actual fill" factors should be. (Staff Ex. 25.0, pp. 17-18) They pointed out that as a result of the above-described sequence of events, the other parties were given only one opportunity, namely, their surrebuttal testimonies due on March 5, 2004, to respond to the fill factor values proposed by Dr. Liu. (Joint CLEC Initial Br., pp. 81-83) Joint CLECs stated that the sequence of events by which Dr. Liu's fill factor concept and proposed fill factor values were introduced in this case provided sufficient basis for the Commission to completely disregard her testimony and proposal. (*Id.*, p. 83) They also pointed out that in her January 20, 2004 rebuttal testimony, in which Dr. Liu testified that she was still in the process of collecting information necessary to calculate "forward-looking actual fill" factors and would present her actual proposed values in her February 20 surrebuttal testimony, she also stated:

In the event that I am not able to collect sufficient information for me to develop the particular values that the "forward-looking actual fill" would take, then I would recommend that the Commission continue to use the target fill as adopted in the TELRIC [I] Proceeding. (Staff Ex. 17.0, p. 38)

Joint CLECs recommended that since, by her own admission, Dr. Liu already knew at the time she made the above-quoted statement that she would not be able to obtain the information needed to calculate “forward-looking actual fill” values, the Commission should hold Dr. Liu to her word and treat her recommendation as being to continue to use the target fill factors adopted in the TELRIC I Order. They stated that this would make Dr. Liu’s recommendation consistent with Staff’s recommendations in its direct case as presented by Staff witnesses Messrs. Hoagg and Green and Dr. Staranczak.

Joint CLECs stated that the essence of Dr. Liu’s concept of “forward-looking actual fill” appeared to be the present value of the sum of all future demand on the network divided by the present value of all future network capacity. (See, *e.g.*, Staff Ex. 25.0, p. 17, and Tr. 997-998) They stated that it therefore was not surprising that Dr. Liu came to the conclusion that the information needed for the calculation of this fill factor value is unavailable. (*Id.*) They noted that she testified on cross-examination that she did not think the necessary information to make the calculation would ever be available. (Tr. 999-1000) Joint CLECs stated that the lack of the information Dr. Liu needed to make her proposed calculations was a direct result of her own unworkable construct. (Joint CLEC Initial Br., pp. 83-84)

Joint CLECs stated that Dr. Liu’s “proxy” calculation of her “forward-looking actual fill” factors, which she presented for the first time in her February 20 surrebuttal, bore no resemblance to the theoretical construct of “forward-looking actual fill” that she presented in her rebuttal and surrebuttal testimonies. They pointed out that her calculation of her proxy values did not use the mathematical models for “forward-looking actual fill” calculations that she developed in her testimony. (Tr. 998-999) They explained that the purported basis of Dr. Liu’s proxy calculation was to adjust SBC’s current actual network capacity to remove the effects of so-called *ex post* inefficiencies that exist in SBC’s current actual network, which would not be found in the efficient forward-looking network; she then used these adjusted capacity values to calculate fill factors. (Staff Ex. 25.0, pp. 18, 25-27, 30) Joint CLECs stated that the actual numerical adjustments that Dr. Liu made to SBC’s current actual network capacity in calculating her “proxy” values were totally lacking in either explanation or empirical basis. (Joint CLEC Initial Br., pp. 84-85) They pointed out that after providing dozens of pages of highly-theoretical testimony on “forward-looking actual fill” and the basis for her “proxy” values, the following testimony was the entirety of Dr. Liu’s explanation and support for the fill factor values she actually proposed:

- Q. What are the adjustments that you make to the total network capacity for different loop components?
- A. I make 15% adjustments to the total capacity of SBC distribution plant, and 7.5% capacity adjustments to SBC’s feeder plant and DLC capacity. I make no adjustment to SBC network capacity for circuit equipment.

Note that a 15% adjustment to SBC’s actual distribution plant capacity implicitly assumes that 15% of distribution plant capacity has been built due to “innocent mistakes” such as incomplete information or imperfect forecasts of the future events, and it is thus not part of a forward-looking network. Similarly, a 7.5% adjustment to feeder plant

capacity assumes that 7.5% of the total feeder plant capacity has been built due to “innocent mistakes,” and it is not part of a forward-looking network. These adjustments would at least be sufficient to account for *ex post* inefficient network plant that has been cumulatively built due to incomplete information or imperfect forecasts. (Staff Ex. 25.0, pp. 28-29)

Joint CLECs also pointed out that Dr. Liu confirmed that she had no supporting materials, data or analysis for her proposed 15% and 7.5% adjustments other than what she provided in her February 20 testimony (quoted above). (Tr. 1003; TDS Cross Ex. 34)

Joint CLECs summarized that Dr. Liu’s proposed “forward-looking actual fill” concept is a theoretical construct that by her own admission is incapable of ever being implemented to produce numeric fill factor values in a manner consistent with the underlying theory. They stated that her actual proposed fill factor values for this case are totally lacking in any basis, and are nothing more than an arbitrary, and rather minimal, adjustment to SBC’s proposed current actual fill factors. Joint CLECs urged the Commission to reject Dr. Liu’s “forward-looking actual fill” factor proposal and her “proxy” calculation, and to treat Staff’s position in this case as being that the target fill factors adopted in the TELRIC I Order should continue to be used. (Joint CLEC Initial Br., pp. 85-86)

In their Reply Brief, Joint CLECs noted that SBC had argued that Dr. Liu’s adjustments to SBC’s actual network capacity for purposes of arriving at her proxy fill factor values were too high, and that SBC witness William Palmer had proposed certain revisions to Dr. Liu’s adjustments. Joint CLECs pointed out, however, that since Dr. Liu’s adjustments were completely arbitrary and lacking in any empirical basis whatsoever, any attempt to adjust her adjustments (such as SBC witness W. Palmer attempted) is a similarly arbitrary act. Joint CLECs stated that the Commission must reject any SBC proposed fill factor values that involve further adjustments to Dr. Liu’s original adjustments, just as the Commission should reject Dr. Liu’s proposed fill factors themselves in their entirety as arbitrary and unsupported. (Joint CLEC Reply Br., p. 37)

f. Joint CLECs’ Third Option: A More Accurate Implementation of Dr. Liu’s Approach

Joint CLECs stated that although Dr. Liu’s proposed fill factor values are simply arbitrary adjustments to SBC Illinois’ current actual fill factors, and have no empirical basis, the theoretical concept behind her “proxy” calculation, *i.e.*, to adjust SBC Illinois’ actual network capacity to remove the impacts of efficiency and to reflect the most efficient practices, could have merit if implemented more appropriately. They stated that Dr. Liu did not conduct a sufficiently detailed analysis and failed to provide empirical support in applying her own theory. (AT&T/Joint CLEC Ex. 1.3, pp. 3-4, 17-18) However, Joint CLEC witnesses Starkey and Fischer presented a more accurate implementation of Dr. Liu’s approach for the Commission’s consideration. (*Id.*, pp. 18-28) The resulting fill factor values are set forth on Attachment MS/WF-23 to AT&T/Joint CLEC Exhibit 1.3, and are summarized for the major network components in the table at page 50 of Joint CLECs’ Initial Brief (PROPRIETARY version). Joint CLECs stated that these fill factor values are a third best option for the Commission in this

case, behind (1) usable capacity fill factors and (2) the target fill factors adopted in the TELRIC I Order.

In describing the basis for their more accurate implementation of Dr. Liu's approach, Messrs. Starkey and Fischer explained that economists measure the inefficiency of a particular entity by comparing it with the best observed practices. They stated that the best observed practices represent a "frontier" against which the relative efficiency of entities can be measured. (AT&T/Joint CLEC Ex. 1.3, p. 18) In a competitive industry, the mechanism of the competitive market drives the participants towards efficiency. In a monopoly market, however, this is not necessarily the case, and there are no competitors to provide a benchmark of efficiency against which to judge the company under consideration. They stated that the frontier approach can still be applied, however, by attempting to identify the most efficient operations of the monopoly and comparing the rest of its operations to those most efficient operations. (*Id.*, pp. 18-19)

To effectuate their more accurate implementation of Dr. Liu's approach, Messrs. Starkey and Fischer applied the frontier approach to SBC's capacity utilization at the wire center level. (*Id.*, p. 19) They noted that some SBC wire centers tend to have high fill factors over time and others tend to have low fill factors over time. These observations suggested that some wire centers are more efficient relative to other wire centers. (*Id.*, pp. 19-20) They noted that, in addition, there is a wide variance among SBC wire centers in terms of numbers of defective pairs. Moreover, a high percentage of defective pairs is not consistent with a new, efficient, forward-looking network. They testified that since in a number of wire centers defective pairs constitute 1% or less of usable capacity, this percentage appeared to represent the best-observed practice. Messrs. Starkey and Fischer therefore set the defective pair percentage at 1% in all wire centers in which the actual percentage is greater than 1%. Using these adjusted counts of defective pairs, they then recalculated the usable capacity (which includes defective pairs) in each wire center. (*Id.*, pp. 20-21)

With respect to the wire center-by-wire center fill factors, Messrs. Starkey and Fischer selected from SBC's January 2002 fill data base the 20 wire centers (constituting about 7% of the wire centers in SBC's fill data base) for each network component that had the best fill factors. These wire centers were selected after the adjustment had been made to wire center available capacity for defective pairs described in the preceding paragraph. The best 20 wire centers were selected independently for each network component. After selecting these wire centers, Messrs. Starkey and Fischer reviewed subsequent data to determine if significant increases in capacity had occurred after the date on which SBC's fill data base was based. (Subsequent capacity increases would suggest that the observed high fill factor in a wire center had been unsustainable and that capacity relief had been required. (*Id.*, p. 23)) If a subsequent capacity increase in one of the selected wire centers was observed, that wire center was replaced with the wire center with the next highest fill. Messrs. Starkey and Fischer also checked that the selected wire centers varied considerably in size (pair counts), so that the selected wire centers did not consist solely of either small/rural or large/urban central offices. For each network component they calculated a weighted average of the fill factors in the 20 wire centers. (*Id.*, pp. 22-23)

Messrs. Starkey and Fischer made one other adjustment to the resulting fill factors. Specifically, in light of the fact that SBC's fill factors have been falling over time, they compared SBC fill factor data for the year 1998 to the fill factor data for January 2002 (the data

set that SBC proposes to use in this case and from which Messrs. Starkey and Fischer constructed the adjusted fill factors shown above). They selected 1998 for two reasons: (1) it was the year before SBC initiated its “Project Pronto” broadband initiative, and (2) it was a “middle” year (*i.e.*, neither best nor worst) in the business cycle. (*Id.*, pp. 23-25) The comparison of SBC’s distribution fill factors in 1998 to those in January 2002 showed that the 1998 fill factors were slightly higher than the January 2002 fill factors. (*Id.*, p. 25) Messrs. Starkey and Fischer revised their adjusted fill factors for each of the three SBC zones by the ratio of the 1998 fill factor to the January 2002 fill factor. This adjustment removed the effects of the business cycle on the January 2002 data. This adjustment was made only for distribution fill factors since the data needed to make the 1998-January 2002 comparison was not available for other network components. (*Id.*)

The final, adjusted actual fill factors for the major network components determined by Messrs. Starkey and Fischer using the procedure described above are shown in AT&T/Joint CLEC Exhibit 1.3, page 26 and on page 89 of Joint CLECs’ Initial Brief (PROPRIETARY version). They testified that these fill factors represent SBC Illinois’ actual fill factors, adjusted to remove the following types of inefficiencies: (i) relative inefficiency of SBC’s wire centers as measured against its “best” wire centers; (ii) unreasonable proportions of defective pairs in individual wire centers; and (iii) short-term decreases in capacity utilization associated with the business cycle or other short-term events. (AT&T/Joint CLEC Ex. 1.3, p. 27)

Messrs. Starkey and Fischer explained that while the adjusted fill factors that they calculated removed the effects of some inefficiencies from SBC’s actual fill factors, the adjusted fill factors did not fully represent the fill factors to be expected in an efficient, forward-looking network, because the data did not permit removal of other types of inefficiency in SBC’s actual network. (*Id.*, pp. 27-28) For this reason, Joint CLECs contended that these adjusted actual fill factors rank as a third option behind usable capacity fill factors and the target fill factors adopted in the TELRIC I Order. However, should the Commission decide to base the fill factor values used in this case on SBC Illinois’ actual network capacity utilization data, they argued that the adjusted fill factors calculated by Messrs. Starkey and Fischer provide a superior, more logically-grounded and empirically based set of values than the fill factor values proposed by Dr. Liu. (*Id.*, pp. 28-29)

In their Reply Brief, Joint CLECs responded to SBC’s criticisms of Messrs. Starkey and Fischer’s more accurate implementation of Dr. Liu’s adjusted actual capacity approach. Joint CLECs noted that SBC made four criticisms, but that those criticisms neither individually nor collectively cast doubt on the usefulness of Messrs. Starkey and Fischer’s analysis. (Joint CLEC Reply Br., p. 40)

SBC’s first criticism was that the Starkey/Fischer adjustment for efficiency was based on only 20 wire centers and that these wire centers are unduly skewed towards tiny, rural offices. (SBC Initial Br., pp. 52-53) Joint CLECs responded that the transcript pages that SBC cited (Tr. 1782-87) did not support SBC’s assertion, and in fact showed that Mr. Starkey repeatedly disagreed with SBC counsel’s assertions to that effect. They noted that Mr. Starkey testified affirmatively that the selected offices were fairly well distributed among larger and smaller offices, and that the analysis contained fairly large, medium size and fairly small offices. (Tr. 1782, 1783, 1787) They pointed out that the wire centers used in the analysis included Wilmette,

Grayslake, Chicago Kildare, Cary, Hickory Hills, Oak Lawn, Fox Lake, Wauconda, Chicago Beverly, Chicago Edgewater, Algonquin, Collinsville, Plainfield, Frankfort, Romeoville, Chicago Stewart and New Lenox, as well as offices in Schaumburg and Northbrook. (SBC Cross Ex. 48P) Joint CLECs noted that Mr. Starkey explicitly testified that the 20 wire centers selected for each of the network components produced a reasonable distribution of communities and geographic areas served in terms of demographics. (Tr. 1851-52) (Joint CLEC Reply Br., p. 41)

SBC's second criticism was to suggest that Messrs. Starkey and Fischer should have somehow "controlled" for the fact that some of the wire centers selected are (according to SBC) in "mature" communities with no capacity for growth. (SBC Initial Br., p. 53) However, Mr. Starkey expressly disagreed with SBC's hypothetical assumption that a "mature" community would have no potential for growth in demand, because the fact that a community has a stable population does not necessarily mean that it cannot experience increased demand for telecommunications services. He disagreed with SBC counsel's hypothetical that any community could have no potential for growth in demand for telecommunications services. (Tr. 1758-59, 1848-49) As part of this second criticism, SBC also noted that the 20 wire centers selected by Messrs. Starkey and Fischer did not include any Zone A (*i.e.*, downtown Chicago) wire centers. (SBC Initial Br., p. 53) However, as Mr. Starkey pointed out, certain of the network components (such as DLC chassis) typically are not used in downtown Chicago wire centers. (Tr. 1792-1793) Joint CLECs stated that not including downtown Chicago wire centers is not inconsistent with the focus of this case which is primarily on the TELRIC rates for UNE loops used to serve mass market customers (*e.g.*, 2-wire analog loops). They also noted that the wire centers that Messrs. Starkey and Fischer used include several large wire centers within Chicago even if not in Zone A. (Tr. 1791-1792; see SBC Cross Ex. 48P; Joint CLEC Reply Br., pp. 41-42)

Joint CLECs also stated that SBC's first two criticisms missed the point of Messrs. Starkey and Fischer's analysis. They stated that the purpose of the analysis was not to take a statistically valid random sample of all of SBC's wire centers – the resulting fill factors would have simply devolved to SBC's existing fill factors. Rather, they argued that the point of the analysis was to identify the wire centers in which SBC has achieved the most efficient utilization of its capacity, as a benchmark against which the overall efficiency of all SBC wire centers could be judged. Moreover, as Mr. Starkey explained, regardless of whether a wire center is "mature" or not, or large or small, the point of a TELRIC study is to build a network efficiently sized to meet the reasonably foreseeable demand. (Tr. 1849-50) Joint CLECs stated that the point of the Starkey/Fischer analysis is to show that in some wire centers SBC has been able to do that more effectively than in others, and that the more efficient wire centers should provide a benchmark for the efficiency of the entire forward-looking network. (See AT&T/Joint CLEC Ex. 1.3, pp. 18-22) (Joint CLEC Reply Br., pp. 42-43)

SBC's third criticism was that Starkey/Fischer failed to take into account the fact that in some areas SBC may have installed copper and fiber facilities side by side with one set of facilities having a higher fill factor and the other set having a lower fill factor. (SBC Initial Br., pp. 53-54) Joint CLECs noted that the point raised by SBC in fact tended to substantiate some of the reasons cited by Messrs. Starkey and Fischer as to why SBC's current actual fill factors do not represent an efficient, forward-looking network, namely, that SBC's current fill factors are

depressed due to SBC's installation of fiber overlays to the copper distribution network, in anticipation of future demand for advanced services. Joint CLECs also noted that SBC's point helps to illustrate the distortion created by SBC's inclusion of defective pairs in "available capacity", because SBC may have decided to install new fiber facilities to serve demand growth rather than repair the defective pairs in the existing copper facilities. Joint CLECs stated that more generally, SBC's third criticism illustrates why SBC's current actual fill factors are not representative of a newly-designed, efficient, forward-looking network: low fill factors for one network component may be the consequence of high fill factors for another component. They stated that while the installation of new fiber facilities next to existing copper facilities may be a result of the historical evolution of technology and the SBC network, SBC has not suggested that anyone would design a new, efficient network based on existing wire centers and existing customer locations using such duplicative and overlapping facilities of different types. Finally, Joint CLECs reiterated that SBC's third criticism also missed the point of the Starkey/Fischer analysis, which was to identify where SBC has been able to achieve the most efficient utilization of each network component. (Joint CLEC Reply Br., pp. 43-44)

SBC's fourth criticism was that Messrs. Starkey and Fischer adjusted the defective pair percentages for copper distribution in all SBC central offices to 1% of usable capacity, without attempting to determine if 1% defective pairs was a sustainable percentage for the entire network. SBC implied that this is not a sustainable percentage because it is not economically justified for SBC to repair defective pairs unless necessary to meet an immediate capacity need. (SBC Initial Br., p. 54) Joint CLECs responded that this SBC criticism is irrelevant to determining the defective pair percentage likely to be observed in a newly-designed and newly-installed efficient network. They stated that in such a network, the only defective pairs to be expected would be those that resulted from manufacturers' defects in the newly-purchased and installed cables. They pointed out that neither SBC nor this Commission would tolerate defective pair percentages in a newly-installed network anywhere near as high as the actual defective pairs percentages in SBC's existing network. (Joint CLEC Reply Br., p. 44)

Joint CLECs also noted in their Reply Brief that the Fill Factors section of Staff's Initial Brief concluded with some four pages of discussion addressed to Messrs. Starkey and Fischer's more accurate implementation of Dr. Liu's proxy method. (Staff Initial Br., pp. 60-64) Joint CLECs pointed out that there were absolutely no citations to the record in this portion of Staff's Initial Brief. They indicated that this was not surprising, because there is in fact no record support for this discussion in Staff's brief. Joint CLECs stated, therefore, that this portion of Staff's Initial Brief must be ignored by the Commission. (Joint CLEC Reply Br., p. 53)

2. Depreciation

Joint CLECs noted that the FCC's TELRIC rules require the use of "economic depreciation" rates in calculating forward-looking costs to be used in setting UNE prices. (47 C.F.R. §51.505(b)(3)) Thus, they argued, the lives used for the various categories of plant assets must be based on the expected economic lives of newly-installed plant based on the most efficient technology available today (sometimes referred to as "projection lives"). Joint CLECs noted that in the TELRIC I Order, the Commission determined that the projection lives and future net salvage percentages underlying the depreciation rates prescribed for Ameritech Illinois by the FCC as set forth in the FCC's update of depreciation rates in FCC Docket 96-22 (1996)

should be used to set TELRIC-based UNE rates for Ameritech. (TELRIC I Order, p. 28) They further pointed out that the Commission rejected Ameritech's proposal to use shorter depreciable lives than those adopted for Ameritech by the FCC, stating, "We are unwilling to adopt Ameritech Illinois' ill-defined and largely judgmental calculations of economic lives and abandon the traditional engineering and economic principles which we have utilized in the past", and finding that "We are persuaded by [AT&T/MCI witness] Mr. Majoros' testimony that the FCC projected lives are reasonably forward-looking." (*Id.*, pp. 27-28)

In this case, Joint CLECs, along with Staff and the Attorney General, recommended that the Commission continue to use the depreciation rates adopted in the TELRIC I Order in setting SBC's UNE rates. These same parties urged rejection of SBC's proposal to depart from the Commission's determination in the TELRIC I Order and instead adopt the depreciation lives that SBC uses for financial reporting purposes. Joint CLECs referred to AT&T/MCI Joint Exhibit 1, Attachment MJM-4, which contains a comparison of the depreciation lives and future net salvage percentages prescribed by the FCC for SBC Illinois (and adopted by the Commission for use in setting UNE prices in the TELRIC I Order) to the depreciation lives and future net salvage values proposed by SBC in this case. Joint CLECs asserted that this comparison shows that SBC is proposing substantial decreases in depreciation lives, and substantial increases in negative future net salvage percentages, for many categories of plant assets, as compared to those established by the FCC and adopted by the Commission in the TELRIC I Order. (The actual depreciation lives and net salvage value are claimed as proprietary by SBC and thus are not shown in this Order.) Joint CLECs stated that the decreases in depreciation lives and increases in future net salvage values, if accepted, would increase the annual depreciation rate and expense associated with a UNE, and thus (all other things equal) increase the TELRIC-based UNE rates.

Joint CLECs emphasized that SBC presented no evidence explaining how the depreciation lives it uses for financial reporting purposes were calculated and determined. SBC's presentation consisted of the testimony of Dr. Lawrence Vanston of Technology Futures, Inc. ("TFI"), who offered a number of studies purporting to estimate, based largely on his projections of future competitive impacts on the lives of SBC's loop assets, the future economic lives of SBC's outside plant assets. (SBC Ex. 13.0, 13.1, 13.2) Joint CLECs stated that Dr. Vanston's latest studies are just the most recent in a series of studies in which he consistently predicts that a life-shortening (for ILEC outside plant assets) wave of new competitive or technological developments is just over the horizon, and that therefore ILEC depreciation lives should be drastically reduced from the depreciation lives adopted by the FCC. Joint CLECs contended that Dr. Vanston's studies are speculative and unsupported, other than by anecdotal evidence and his own hyperbole, and should be rejected. Joint CLECs stated that the Commission's statement in the TELRIC I Order, in rejecting Ameritech's arguments to use shorter depreciation lives than those prescribed by the FCC because of alleged impending technological and competitive change that would require replacement of substantial portions of Ameritech's network, is equally applicable in this case: "We do not believe that 'forward-looking' is synonymous with 'gross speculation'." (TELRIC I Order, p. 28) (Joint CLEC Initial Br., pp. 93-94)

Joint CLECs stated that, in contrast, the depreciation lives and salvage values prescribed by the FCC for SBC Illinois represent an unbiased estimate of the forward-looking economic lives of SBC's plant assets that this Commission can reliably use in setting TELRIC-based UNE

prices in this proceeding, as it did in the TELRIC I Order. (AT&T/MCI Jt. Ex. 1.1, p. 15) The FCC's projection lives are the result of the FCC's analysis of depreciation studies filed by carriers and performed in consultation with state regulatory commission staffs. (AT&T/MCI Jt. Ex. 1, p. 7) Joint CLECs noted that whereas the FCC previously relied on "historical experience" to project equipment lives, it now "rel[ies] on analysis of company plans, technological developments, and other future-oriented studies." (*Id.*, p. 7, citing FCC, 1998 *Biennial Regulatory Review – Review of Depreciation Requirements for Incumbent Local Exchange Carriers*, CC Docket 98-137, Report and Order, FCC 99-397 (rel. Dec. 30, 1999) ("FCC 1999 Depreciation Update Order")) Mr. Majoros explained that the FCC staff always used a forward-looking approach to setting depreciation rates. The FCC bases its parameter prescriptions upon the studies and information supplied by the individual companies, specific company plans, information submitted by state commission staffs, consumer groups and its broad industry-wide experience. Joint CLECs noted that that information includes a wealth of company-specific (and company provided) information concerning the impact of technology and competition on lives. (*Id.*, pp. 7-8)

Joint CLECs stated that in adopting the current prescription lives for SBC Illinois, the FCC took into account forward-looking technology as opposed to utilizing only historical information. They showed that the projection lives adopted by the FCC for SBC are significantly shorter than the average life indications for its plant accounts at the time of adoption (*i.e.*, the lives that the FCC could have adopted had it relied solely on historical experience). (AT&T/MCI Jt. Ex. 1, pp. 14-15) Joint CLECs further argued that more recent data than that available to the FCC at the time it set SBC's current prescription lives confirms that there is no basis for reducing those lives and increasing the annual depreciation rates. For example, the 2002 retirement rates in SBC Illinois' underground cable account and buried cable account imply lives of over 100 years for the equipment in each of these accounts. (*Id.*, p. 16)

Joint CLECs also pointed out that the rapid growth in SBC Illinois' depreciation reserve percentage (*i.e.*, the accumulated reserve for depreciation as a percentage of the original cost of plant in service) since the 1996 represcription of its depreciation rates by the FCC indicates that the current rates implemented a significant decrease in SBC's projection lives and a significant increase in its annual depreciation expense as compared to Ameritech's previous depreciation rates that were based on historical experience, and therefore that the current lives are not too long. Joint CLECs noted that SBC/Ameritech's depreciation reserve level has risen from 39.1% in 1992 to 56.5% in 2002, despite a growth in plant of over 61%. Joint CLECs stated that growth in the depreciation reserve as a percentage of plant in service in a time of significant plant growth indicates that plant is being depreciated over shorter lives than the actual in-service lives of the plant, *i.e.*, plant is being fully depreciated well before it is retired. (AT&T/MCI Jt. Ex. 1, pp. 9-13) They showed that looking at a more recent period, SBC Illinois' depreciation reserve percentage was higher in 2002 than it was in 1998 even though SBC Illinois' plant grew by over 20% in that period. (*Id.*, pp. 16-17 and Att. MJM-6) Other analyses using 1999-2002 data showed that the trend of SBC Illinois' equipment lives is increasing not decreasing. (*Id.*, pp. 17-21 and Att. MJM-8-13; AT&T/MCI Jt. Ex. 1.1, pp. 18-19 and Att. MJM-20) Joint CLECs stated that empirical evidence therefore does not indicate that SBC Illinois' current FCC-prescribed depreciation lives are too long. (AT&T/MCI Jt. Ex. 1, p. 13) AT&T/MCI witness Mr. Majoros testified that although the FCC prescription lives "already reflect the life-shortening effect of facilities bypass, or competition, that have been predicted for over a decade" (*Id.*, p. 38),

at this point “these FCC lives are extremely short because they are based on accelerated retirements which are not occurring.” (*Id.*, p. 41)

Joint CLECs noted that the Staff depreciation witnesses also recommended that the Commission continue to use the same depreciation lives it adopted in the TELRIC I Order, namely, the FCC’s projection lives for SBC Illinois. Staff witness Peter Wagner testified that “Equipment lives set by the Commission in Docket 96-0486/0569 continue to be forward looking and appropriate for the following reasons: 1) Advanced services can be offered through the existing Illinois network; 2) SBC Illinois’ own network infrastructure investment does not recognize or reflect the need for a more rapid network transformation; and 3) The FCC continues to apply the same rates used to determine the current equipment lives for Illinois.” (Staff Ex. 13.0, p. 5) Similarly, Staff economist Dr. Genio Staranczak supported continued use of the FCC depreciation lives adopted in the TELRIC I Order, rather than the shorter financial reporting lives proposed by SBC Illinois. He testified that the current depreciation rates adopted by this Commission are economic depreciation rates. (Staff Ex. 2.0, p. 22)

Joint CLECs further noted that William Dunkel, on behalf of the Attorney General, also recommended that the Commission should continue to use the depreciation lives for SBC Illinois that it adopted in the TELRIC I Order. After reviewing the arguments of SBC witness Dr. Vanston for shorter depreciation lives and higher depreciation expense (AG Ex. 1.0, pp. 36-40), Mr. Dunkel concluded that SBC Illinois did not demonstrate that the depreciation lives that the Commission established in the prior UNE proceeding are unreasonable. (*Id.*, p. 41)

Joint CLECs stated that the FCC itself has confirmed that the projection lives it has established in prescribing depreciation rates for telecommunications carriers such as SBC Illinois are forward-looking and suitable for use in setting UNE prices. In a 1999 order relating to the Universal Service Fund, the FCC stated:

In adopting a forward-looking mechanism for high-cost support, we found that depreciation expense calculations based on the [FCC’s] prescribed projection lives and salvage factors represent the best forward-looking estimates of depreciation lives and net salvage projections.⁶

In another 1999 order in which it reviewed and updated the depreciation projection life ranges it had originally adopted in 1996, the FCC stated:

These ranges can be relied upon by Federal and state regulatory commissions for determining the appropriate depreciation factors for use in establishing high cost support and interconnection and UNE prices.⁷

⁶FCC, *United States Telephone Association’s Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers*, ASD 98-91, Mem. Opinion and Order, FCC 99-397 (rel. Dec. 30, 1999), ¶61.

⁷FCC 1999 Depreciation Update Order, ¶34. In this Order, the FCC conducted a complete review of the prescription lives it originally established several years earlier and found a need to change the lives for only one account. (*Id.* at ¶13-14; see AT&T/MCI Jt. Ex. 1.1, p. 17)

Joint CLECs noted that more recently, in the *Triennial Review Order*, the FCC rejected the attempts of ILECs, including SBC, to persuade the FCC to mandate the use of ILECs' financial reporting book lives for purposes of setting TELRIC rates, stating, "We decline to adopt the incumbent LECs' suggestion that we mandate the use of financial lives in establishing depreciation expense under TELRIC. The incumbent LECs have not provided any empirical basis on which we could conclude that financial lives always will be more consistent with TELRIC than regulatory lives." (*Triennial Review Order*, ¶688) The FCC also noted that the rate of depreciation over an asset's life may be accelerated to reflect any anticipated decline in its value due to the presence of competition. (*Id.*, ¶689-690) Joint CLECs pointed out, however, that the FCC prescription lives first adopted in 1996 and reviewed and confirmed in 1999, which this Commission has adopted for TELRIC purposes, are based on economic depreciation concepts rather than strictly on historical experience. (AT&T/MCI Jt. Ex. 1.1, p. 20)

Joint CLECs stated that the *Virginia Arbitration Order*, issued in late August 2003, provides a clear view of FCC thinking, contemporaneous with the *Triennial Review Order*, concerning the appropriateness of ILEC financial lives versus FCC prescription lives in setting TELRIC-based rates. In that case, which was an interconnection agreement arbitration conducted by the FCC's Wireline Competition Bureau ("WCB"), the ILEC (Verizon) proposed the use of its financial book lives for setting TELRIC rates, while the CLECs (AT&T and MCI) proposed the use of the FCC-prescribed lives. The FCC WCB rejected the ILEC's proposed use of financial book lives, and concluded that "FCC regulatory lives should be used for purposes of calculating UNE prices." (*Virginia Arbitration Order*, ¶112, 116) The Order also rejected Verizon's argument that FCC regulatory lives are not sufficiently forward-looking, and noted that the FCC has used forward-looking asset lives for some time in its regulation of incumbent LEC depreciation practices. (*Id.*, ¶115)

Joint CLECs contended that in arguing for adoption of its financial reporting lives, SBC placed unwarranted reliance on statements made by the FCC in the TELRIC NPRM. Joint CLECs emphasized that the TELRIC NPRM only sets forth proposals for change in the FCC's existing rules, and does not constitute a change in those rules. Joint CLECs disputed SBC's assertion that in the TELRIC NPRM, the FCC had "reiterated" that TELRIC permits the use of financial reporting lives for depreciation purposes" (SBC Initial Br., p. 56), and stated that SBC's characterization was an exaggeration at best. Joint CLECs noted that in the section of the TELRIC NPRM pertaining to "asset lives" (¶¶94-101), the FCC simply requested comments on various questions it posed concerning use of FCC-prescribed depreciation lives and financial reporting lives.

Joint CLECs responded to SBC's contention that the FCC-prescribed depreciation lives are "outdated" and "out of date and out of line with economic reality." (SBC Initial Br., pp. 55, 59) They stated that SBC Illinois is entitled to, and has had ample opportunity to, seek a new set of depreciation lives from the FCC, but has failed to do so, and that this failure speaks volumes. (AT&T/MCI Joint Ex. 1.1, p. 15) They pointed out that SBC presumably would find it more efficient to obtain new, shorter depreciation lives from the FCC than to attempt to persuade numerous state commissions to adopt shorter depreciation lives in individual proceedings. Moreover, if (as SBC argues) recent pronouncements of the FCC indicate that the current FCC lives are too short for TELRIC purposes and that financial reporting lives adopted for this purpose, then certainly the FCC would be the most receptive forum in which to seek that

reduction in depreciation lives. Yet, Joint CLECs observed, SBC has not sought to obtain re-prescribed, shorter depreciation lives (equal to or comparable to its financial reporting lives) from the FCC. They stated that it is apparent that SBC has concluded that the FCC would reject such a request.

Joint CLECs noted that SBC was able to cite only one state commission order that had adopted ILEC financial reporting lives for TELRIC reporting purposes, plus one FCC Section 271 order that found the UNE rates of an RBOC that had been based on financial reporting lives were consistent with TELRIC. They noted that, in contrast, the FCC in its recent TELRIC NPRM reported that at least 20 states have used the FCC-prescribed lives in calculating TELRIC-based UNE prices. In addition, AT&T/MCI witness Mr. Majoros identified 25 states that have adopted the FCC Lives for TELRIC purposes, and cited the order in which each commission did so. (Joint CLEC Reply Br., p. 55; AT&T/MCI Jt. Ex. 1, pp. 23-25)

Joint CLECs contended that SBC's financial reporting lives were not shown in this case to be forward-looking economic lives, and that the Vanston/TFI studies did not provide an appropriate basis for setting SBC Illinois' TELRIC-based UNE prices. They stated that financial reporting lives are governed by generally accepted accounting principles ("GAAP") and specifically, the GAAP principle of conservatism, which dictates that when alternative estimates are about equally likely, the less optimistic estimate should be used. (AT&T/MCI Jt. Ex. 1, p. 33, citing Statement of Financial Accounting Concepts No. 2, Financial Accounting Standards Board, May 1980, p. 95) AT&T/MCI witness Mr. Majoros testified that although the conservatism principle is effective in protecting the interests of investors, it may not offer adequate protection to ratepayers. (AT&T/MCI Jt. Ex. 1, p. 33) The GAAP principle of conservatism prefers the understatement (versus overstatement) of net income and net assets where any potential measurement problems exist. That is, it would point towards the use of depreciation lives for the ILEC's assets that are conservatively short in order to produce a conservatively higher amount of depreciation expense and, correspondingly, a conservatively lower amount of net income. (*Id.*, p. 35)

Mr. Majoros explained that financial reporting lives are determined by and are the responsibility of company management, as opposed to being determined by an unbiased third-party source such as the FCC. Although a public accounting firm audits the financial statements in SBC's annual reports, the auditors only provide an opinion that management's use of the asset life estimates selected for financial reporting purposes present fairly, in all material respects, the annual depreciation expense in conformance with GAAP. The auditors are guided by the GAAP conservatism principle that when alternative expense amounts are acceptable, the alternative having the least favorable effect on net income should be used. The auditors do not attest to the accuracy of the asset lives selected by management. (AT&T/MCI Jt. Ex. 1.1, pp. 2-4) Joint CLECs pointed out that on several occasions, the FCC has cited the GAAP conservatism principle in rejecting ILEC proposals to use the ILECs' financial reporting lives. For example, in a December 1999 order, the FCC reconfirmed its conclusion stated in earlier orders that the GAAP principle of conservatism "did not offer adequate protection for ratepayers in the case of

depreciation accounting.” The FCC stated, “We are not persuaded that the role of the conservatism principle has changed or that we should change our previous decision.”⁸

Joint CLECs noted that Staff economist Dr. Staranczak unequivocally concluded that SBC’s financial reporting lives should not be adopted for use in setting TELRIC-based UNE rates. (Staff Ex. 15.0, p. 2) As Dr. Staranczak explained:

Financial reporting lives are inappropriate for the regulatory purpose of setting UNE rates. Use of financial lives protects the interests of shareholders, by enabling shareholders to recoup (through higher depreciation charges) their capital outlays in the shortest possible period of time, thereby reducing investor risk. However, higher depreciation charges will result in substantial increases in UNE rates for CLECs. This substantial increase in UNE rates will ultimately result in significant rate increases for business and residence phone subscribers that are served by CLECs. Use of financial reporting lives, therefore, does not fairly balance the interests of ratepayers with that of shareholders. Rather, use of financial lives unduly protects the interests of shareholders at the expense of wholesale and ultimately retail subscribers who in effect will be asked to pay higher rates in order to eliminate any possible obsolescence risks to shareholders. In essence, use of financial lives minimizes investment risks for shareholders but maximizes rate risk (i.e. the risk of being overcharged) for subscribers. (Staff Ex. 15.0, p. 3)

After a detailed analysis of SBC witness Dr. Vanston’s arguments in support of SBC’s proposal that its financial reporting lives should be used to set its UNE rates, Dr. Staranczak put the FCC’s “not adequate protection for ratepayers” concern into much more direct terms in the context of this case:

Basically, Dr. Vanston is asking the Commission to grant SBC shorter lives for plant and equipment, which will raise UNE-L rates for CLECs and ultimately telephone rates for the million telephone subscribers they serve because this will enable SBCI to more easily compete in the broadband market with cable operators. It is inappropriate public policy to have ratepayers who don’t subscribe to broadband, or who obtain broadband from the cable companies, to pay higher telephone rates just to make the telephone companies better able to compete in the broadband market. (Staff Ex. 22.0, pp. 29-30)

Joint CLECs contended that the Vanston/TFI forecasts of technological change and competitive impacts, which are SBC’s principal evidentiary basis for seeking adoption of its financial reporting lives in this case, are speculative and not credible. They noted that the approach of the Vanston/TFI forecasts of plant and equipment lives is to develop estimates of asset lives by attempting to forecast the pattern by which new technology will replace old

⁸FCC, *United States Telephone Association’s Petition for Forebearance from Depreciation Regulation of Price Cap Local Exchange Carriers*, ASD-98-91, Mem Opinion and Order, FCC 99-397 (rel. Dec. 30, 1999), ¶48 (quoted at AT&T/MCI Jt. Ex. 1, pp. 36-37).

(current) technology. A key assumption of the Vanston/TFI studies is that ILECs such as SBC will replace their narrowband telecommunications networks with broadband integrated networks capable of providing both telecommunications services and video services, *i.e.*, that SBC Illinois will be forced to engage in a massive replacement of its copper facilities with fiber facilities. Another key component of the Vanston/TFI forecasts is that significant numbers of customers will abandon their landline phones in favor of cable telephony, facilities-based CLECs and wireless, thereby stranding a significant amount of embedded ILEC feeder and distribution facilities. (SBC Ex. 13.0, pp. 6-8, 35-48; see AT&T/MCI Jt. Ex. 1, pp. 27-28) Joint CLECs pointed out, however, that while the Vanston/TFI studies are lengthy and purport to contain a lot of analytical detail, their analyses “superficially appear quite sophisticated, but the lives generated by them are only as correct as TFI’s assumptions.” (AT&T/MCI Jt. Ex. 1, pp. 28-29)

Joint CLECs stated that a review of previous, similar Vanston/TFI forecasts shows that they have consistently been overstated, and that in each forecast the point in time at which the massive replacements of existing ILEC facilities are predicted to occur is pushed farther into the future. Mr. Majoros showed that TFI produced industry-wide studies in 1988, 1994, 1997 and 2002 in which it predicted replacement of ILEC copper loop feeder and distribution facilities by fiber loop feeder and distribution facilities. In the 1988 study, TFI predicted a substitution of fiber for copper of 78.54% (*i.e.*, fiber facilities as a percent of working lines) by 2001. In the 1997 study, TFI’s prediction dropped to 45.9%. In the 1997 study, TFI’s prediction dropped to 34.6%. In the 2002 study, TFI’s prediction dropped to 32.7%. Similarly, in each successive study the predicted year at which essentially complete replacement (99%) of copper feeder facilities by fiber feeder facilities would be achieved has been pushed farther out into the future: In the 1988 study, 99% use of fiber feeder was predicted to be achieved in 2009; in the 1994 study, 99% use of fiber feeder was projected to occur in 2014; and in the 1997 study, 99% use of fiber feeder was predicted to occur in 2015. By the 2002 study, use of fiber feeder was only predicted to be at 77.2% by 2015. (AT&T/MCI Jt. Ex. 1, pp. 30-31 and Att. MJM-14) With respect to replacement of copper loop distribution facilities by fiber loop distribution facilities, in the 1994 study, TFI predicted that fiber facilities would be 42.4% of household lines by 2003. In the 1994 study, TFI’s prediction of fiber distribution facilities as a percent of total household lines in 2003 dropped to 16.8%. In the 2002 study, TFI predicted that fiber distribution facilities will constitute only 0.5% of total household lines in 2003. (*Id.*, p. 31 and Att. MJM-15) Joint CLECs concluded that TFI’s predictions of the replacement of copper facilities by fiber facilities have continuously moved farther out into the future as actual data has proved its predictions to be wrong. (*Id.*, p. 31)

In addition to the evidence just described, Joint CLECs also noted that Attorney General witness Mr. Dunkel presented a similar analysis demonstrating how TFI’s successive forecasts of copper-by-fiber replacement have continuously pushed the predicted arrival of the fiber network farther into the future. (AG Ex. 1.0, p. 39 and Sched. WDA-23) Mr. Dunkel also pointed out that in 1994, TFI forecast that by 2003 ILECs would be retiring 8% of their distribution lines per year as fiber replaced copper; but in fact SBC Illinois is only retiring 1% to 2% of its distribution cable per year. (*Id.*, p. 39 and Sched. WDA-17) As Mr. Dunkel summarized:

Dr. Vanston/TFI always forecasts that massive copper distribution retirements will occur in “a few more years”. . . The simple fact is that Dr. Vanston’s forecasts always suggest that massive copper distribution retirements will occur

“in a few more years.” When his forecasts prove to be inaccurate, Dr. Vanston just moves his forecast to suggest that the massive distribution copper retirements will occur after the next “few more years.” The simple fact is that Dr. Vanston’s/TFI’s estimates have proven to be unreliable in the past, are not reflective of what has happened, and are not reflective of what is happening today. (AG Ex. 1.2, pp. 13-14)

Joint CLECs observed that in response to the criticism of his forecasts by Staff, CLEC and Attorney General witnesses, Dr. Vanston contended that his prior forecasts had not been inaccurate because they included “Early” “Middle” and “Late” scenarios for the manifestation of the technological changes and competitive developments that he predicted would prematurely obsolete massive quantities of ILEC assets and thus compelled a dramatic reduction in depreciation lives, but that the critics of his forecasts only focused on the “Middle” scenarios, whereas the “Late” scenarios support his predictions. (See, *e.g.*, SBC Ex. 13.2, pp. 34-39) Joint CLECs noted that Attorney General witness Dunkel aptly characterized Dr. Vanston’s response:

[T]he fact that Dr. Vanston made three different forecasts (“Early”, “Middle”, and “Late”) in the TFI study does not make my criticisms invalid. Making several different forecast about the same facilities is a way of covering all the bases. Dr. Vanston did not place emphasis on the “late scenario”. When his forecast that he emphasizes proved to be inaccurate, the “late scenario” allows him to claim that he had a forecast that was not as wrong as the forecast that he had emphasized. (AG Ex. 1.2, pp. 14-15)

Joint CLECs pointed out that although TFI’s forecasts have been submitted to the FCC by ILECs for over a decade in support of efforts to obtain shorter depreciation lives, the FCC has declined to rely on TFI’s forecasts in developing plant projection lives. For example, in the 1999 Depreciation Update Order, the FCC stated:

Given the significant uncertainty that even TFI acknowledged exists in forecasting plant replacement over the next fifteen years, we do not find that the carriers that advocate adoption of TFI’s much shorter projection lives have met their burden. Depreciation reserves are at 52 percent, an all-time high, and have increased in each of the past five years. There is no evidence that the large wave of plant replacements forecast by TFI, which should result in increased retirements, has begun or is about to begin. . . . We conclude, therefore, that the TFI study fails to establish convincingly that current projection lives are inadequate. (FCC 1999 Depreciation Update Order, ¶16)

Joint CLECs stated that there are specific reasons that fiber is not replacing copper in the local loop at the rate Vanston/TFI have predicted. Instead of replacing its copper-based network with fiber, SBC Illinois, like other major ILECs, has chosen to implement digital subscriber line (“DSL”) technology, which allows provision of broadband services over existing copper loops. (AT&T/MCI Jt. Ex. 1.1, p. 16) Similarly, in response to competition from broadband providers (such as cable companies), SBC Illinois and other ILECs have not replaced their existing networks with fiber facilities, but rather have chosen the economically efficient path of enhancing their networks through the use of DSL technology and innovative systems such as

Project Pronto, which diverts data traffic while continuing to fully utilize SBC Illinois' existing copper network. Thus, SBC Illinois' response to this competition has tended to lengthen the economic life of its plant, to the extent there is any change at all. (*Id.*, pp. 17-18)

Joint CLECs pointed out that Commission Staff economist Dr. Staranczak demonstrated persuasively that Dr. Vanston's forecasts provided no basis for the Commission to depart from the depreciation lives it adopted in the TELRIC I Order. Dr. Staranczak found Dr. Vanston's analysis of how quickly metallic cable will be replaced by fiber cable to be "speculative":

Dr. Vanston presented no evidence proving rates of technical change today are more rapid than the last time depreciation rates were set in Illinois, which was 1996. Dr. Vanston provides examples of technical developments in telecommunications, and then maintains that these new technologies will reduce the economic lives of existing plant and equipment, but his case is largely speculative and selectively anecdotal rather than substantive. (Staff Ex. 2.0, p. 24)

Dr. Staranczak pointed out that Dr. Vanston predicted that the percentage of access lines that will be converted from copper to fiber will increase from 1% in 2003 to 100% by 2019. (*Id.*, p. 26) He testified that even this prediction is implausible (and the assumed 100% conversion of the network from copper to fiber is unnecessary) because (i) customers who have already installed broadband from other sources will have no need to have their copper telephone access lines converted (and there is no reason why CLECs or customers as a group should pay for the costs of SBC Illinois becoming more competitive with cable companies on a house-by-house basis); and (ii) new technologies (such as NGDLC, which SBC Illinois is in fact deploying) exist which allow advanced services to be provided over existing copper facilities, thereby precluding the need for copper facilities to households to be replaced with fiber facilities in order for those households to have access to advanced services. (*Id.*, pp. 26-27)

Dr. Staranczak also demonstrated that although the number of narrowband access lines nationwide has declined from 2000 to 2003 (in part due to the decline in employment and business activity during that period), the number of ILEC-provided ADSL and other high-speed lines increased four-fold in that period. He testified that the data demonstrate that much of the decline in narrowband access lines is accounted for by conversion to broadband; and that conversion to broadband does not strand existing ILEC narrowband loop plant, but rather makes new use of the functionalities inherent in the copper loop, thereby giving extended life to the copper plant. (Staff Ex. 22.0, pp. 24-26)

Dr. Staranczak also found unpersuasive the other major premise of the Vanston/TFI forecasts of shorter asset lives, namely, that increasing competition will strand large quantities of ILEC equipment thereby necessitating shortened depreciation lives to take account of this development. He noted that TFI forecasts that by 2010 ILECs will provide one-third fewer access lines than today, and that by 2015 ILECs will provide less than half as many access lines as today. (Staff Ex. 2.0, p. 27; SBC Ex. 13.0, p. 8) Dr. Staranczak pointed out, however, that while competition may strand plant if the competition is facilities-based and there is no growth in underlying lines, UNE-P and resale-based competition uses existing SBC Illinois plant and will not shorten the life of that plant. (Staff Ex. 2.0, p. 28) With respect to the various forms of

facilities-based (at the local loop level) competition, Dr. Staranczak pointed out that (i) TFI's forecasts of the numbers of cable telephone subscribers in future years are unrealistically high; (ii) the likelihood of significant construction of their own expensive loop facilities by CLECs is small given the capital-intensity of such an effort and current CLEC financial difficulties; and (iii) the likelihood that a substantial portion of consumers will completely replace their landline service with cellular service, rather than continuing to use cellular service as a complement to their landline service, is small. He noted that although there are 128 million cellular users nationwide, only 2.2% of households have done away with their landline phones. (*Id.*, p. 29; Staff Ex. 22.0, pp. 19-20) Dr. Staranczak testified that "Dr. Vanston's very aggressive wireline to wireless forecasts are without basis in fact" and that "Dr. Vanston's approach to forecasting competitive market share loss appears to consist of quoting a few extreme predictions in the hopes of making his own projections seem reasonable" (*Id.*, pp. 20, 30). He concluded:

Dr. Vanston provides little in the way of hard evidence to support his view that depreciation rates need to be increased. He has not shown that the rate of technological change is accelerating from the rapid rates experienced in the past. Rather Dr. Vanston provides examples of current technical change and then claims that these technical changes will cause equipment to be replaced more quickly than before. His demand forecasts for broadband appear to [be] simplistic "S" curve projections that assert a certain level of penetration will occur in 2020 but these assumed penetration levels are unsupported by underlying economics. He selectively quotes experts in the field and uses anecdotes to justify his projections for increasing bandwidth rather than providing substantive analysis of his own. He does not acknowledge that some technologies allow advanced services to be offered over metallic cable. His analysis of competition does not take into account the weakened financial conditions of competitors or the increased competitive expertise of incumbents. Finally, he quotes experts that assert that cable, facilities based CLEC and cellular competition will strand substantial local plant. However, these so-called expert predictions are inconsistent with recent developments and lack an analytical basis and therefore are not credible. (*Id.*, pp. 30-31)

Despite Dr. Vanston's submission of a new volley of TFI studies in his rebuttal testimony, Dr. Staranczak concluded, after carefully analyzing Dr. Vanston's new studies, that his forecasts remained unsupported:

To summarize, there is no credible statistical evidence to support Dr. Vanston's assertions that facilities based competition will increase substantially. Cable telephony accounts for a small portion of the total market and growth for this type of facilities based entry appears to have stalled. Furthermore, there is now **less** facilities-based competition from non-coaxial sources than there was three years ago. Finally, there is no plausible evidence that substantial numbers of wireline subscribers will rely solely on wireless anytime in the foreseeable future. (Staff Ex. 22.0, pp. 22-23; emphasis in original)

Joint CLECs also pointed out that the possibility that significant numbers of customers will abandon their wireline service for other alternatives is in no way manifested in SBC Illinois'

loop facilities planning. They noted that SBC Illinois continues to plan and install distribution facilities using the same basic “two lines per household” criteria for urban and suburban areas that it claims to have used since at least the 1970s. They stated that if SBC Illinois management actually believed the Vanston/TFI forecasts, management would change this criterion and begin to install fewer lines per household.

Joint CLECs concluded that SBC had failed to demonstrate that the Commission should adopt SBC’s financial reporting asset lives for purposes of calculating its UNE rates. Rather, Joint CLECs, along with Staff and the Attorney General, recommended that the Commission continue to use the depreciation lives prescribed by the FCC for SBC Illinois for this purpose, as the Commission did in the TELRIC I Order.

3. Cost of Capital

a. Overview of Joint CLECs’ Recommendations

Joint CLECs recommended an overall cost of capital of 7.54% for SBC Illinois for purposes of setting SBC’s UNE rates in this proceeding. The components of their proposed weighted average cost of capital are as follows (see AT&T/MCI Jt. Ex. 2, p. 45):

Component	Cost Rate	Percent of Total	Weighted Cost
Common equity	9.46%	66.12%	6.25%
Long Term Debt	5.60%	11.53%	0.65%
Short Term Debt	2.84%	22.35%	0.64%
Total		100%	7.54%

Joint CLECs stated that the 12.19% cost of capital that SBC proposed for use in this proceeding is based on a badly-outdated study that was prepared in 1999. They noted that SBC’s proposal is more than 250 basis points higher than the 9.52% cost of capital adopted by the Commission in 1998 in SBC’s (then Ameritech Illinois) previous TELRIC case, despite years of declining interest rates. They stated that SBC’s proposal is the product of seriously flawed analyses and must be rejected.

Joint CLECs stated that the TELRIC methodology requires that “the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element shall be included in the forward-looking direct cost of that element.” (*Local Competition Order*, ¶690) They stated that the weighted average cost of capital represents the compensation investors require, on a forward-looking basis, to hold claims on assets deployed to provide UNEs. They noted that the FCC has defined the relevant cost of capital as one that reflects the risk incurred in the business of leasing UNEs at wholesale. (*Id.*, ¶702)

Joint CLECs’ recommended cost of capital was based on an analysis prepared by AT&T/MCI witness Terry L. Murray that was submitted in this case in May 2003 and used data from the early part of 2003. Ms. Murray is an economist specializing in the analysis of regulated industries. She holds M.A. and M.Phil, degrees in Economics from Yale University and an A.B. in Economics from Oberlin College. She has 14 years’ experience as a consultant in the fields of telecommunications, energy and insurance regulation. Prior to entering private practice, Ms.

Murray was on the Staff of the California Public Utilities Commission where, among other responsibilities, she held the position of Director of the Division of Ratepayer Advocates. She has testified or served as an expert on telecommunications issues before the regulatory commissions of 26 states and the FCC. (AT&T/MCI Jt. Ex. 2, pp. 1-2 and Att. TLM-1)

Joint CLECs noted that in the TELRIC I case, the Commission adopted a 9.52% overall cost of capital for use in setting UNE rates. (TELRIC I Order, pp. 21-22) The TELRIC I Order was issued in February 1998. Joint CLECs stated that although in this case SBC proposes a cost of capital some 250 basis points higher than the cost of capital adopted by this Commission in the TELRIC I Order, virtually every quantitative indicator demonstrates that SBC's cost of capital should have *decreased* from 1998 to 2003. (AT&T/MCI Jt. Ex. 2.0, p. 9) For example, the Joint CLECs noted that the 10-year U.S. Treasury bond rate was 5.57% in February 1998 but had fallen to 3.96% by early April 2003. The 3-month Treasury bill rate was 5.23% in February 1998 but only 1.11% in early April 2003, a drop of 412 basis points. Other key interest rates declined by similar magnitudes. (*Id.*, pp. 10-11) Joint CLECs also noted that subsequent to the TELRIC I Order, Ameritech was acquired by and became a subsidiary of a much larger company, SBC. In seeking approval of this merger, the applicants argued that it would improve the combined company's access to capital markets. For example, in its Order in Docket 98-0555 in which this Commission approved the SBC-Ameritech merger, this Commission noted that "The record indicates that the financial strength of the combined companies will exceed the financial strength of either company alone. As such, the Joint Applicants' access to capital markets will likely be enhanced, not decreased."⁹ Joint CLECs stated that, all other things being equal, SBC Illinois' cost of capital should have declined since 1998, not increased. (AT&T/MCI Jt. Ex. 2, p. 9)

b. Forward-Looking Cost of Equity

AT&T witness Ms. Murray selected a group of comparable companies (proxy group) with characteristics as similar as possible to the wholesale business of providing network elements, which is the line of business for which SBC's forward-looking cost of capital is being determined. Because the relevant business risk is that of providing UNEs at wholesale, Ms. Murray considered for inclusion in the proxy group all companies with publicly-traded stock for which any part of the company has a legal obligation to provide UNEs pursuant to the Telecommunications Act. (AT&T/MCI Jt. Ex. 2, p. 18) However, she eliminated, as not comparable, companies that do not qualify as a large capitalization stock like SBC. (*Id.*, p. 19) She stated that the overall risk of the holding companies with publicly-traded securities that own the operating telephone companies that are obligated to provide UNEs is probably greater than the risk associated with providing UNEs standing alone. However, Ms. Murray made no downward adjustments to her cost of capital estimates based on the publicly-traded securities of the holding companies to reflect this fact. (*Id.*, pp. 16-18) The resulting proxy group she selected consists of Verizon, Bell South and SBC itself. (*Id.*, p. 18) Another large

⁹See *Joint Application For Approval of the Reorganization of Illinois Bell Telephone Company d/b/a Ameritech Illinois, and the Reorganization of Ameritech Illinois Metro, Inc., in Accordance with Section 7-204 of the Public Utilities Act and/or All Other Appropriate Relief*, Docket 98-0555, Order issued Sept. 23, 1999, pp. 42, 44-45 (cited at AT&T/MCI Jt. Ex. 2, p. 9)

telecommunications holding company, Qwest, was not included in the proxy group for several reasons including recently revealed accounting issues and the fact that Qwest pays no dividends and thus cannot be used in a standard DCF analysis. (*Id.*, p. 19)

Ms. Murray estimated the forward-looking cost of equity capital using the discounted cash flow (“DCF”) and capital asset pricing model (“CAPM”) methodologies. The DCF methodology estimates investors’ required cost of equity capital using the familiar formula that equates the price of a common stock to the discounted value of the expected cash flows from dividends over time. (AT&T/MCI Jt. Ex. 2, pp. 21-22) In her DCF analysis, Ms. Murray used a three-stage DCF growth model which, as recognized by the respected authority Ibbotson and Associates, “fits with life cycle theories in regards to company growth . . . Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.” (*Id.*, pp. 22-23, citing Ibbotson Associates, *SBBI: Valuation Edition, 2003 Yearbook*, p. 62). In Ms. Murray’s three-stage model, the first stage is the next five years, in which she based the expected growth in the proxy companies’ earnings on the mean of analysts’ forecasts over the five-year period. She used analysts’ consensus earnings forecasts from *Thomson Financial Network* (formerly I/B/E/S) as the first-stage growth rates for the comparable companies. (*Id.*, pp. 23-24) The second stage is the succeeding 10 years (*i.e.*, the period ending 15 years in the future), during which each company’s growth rate is assumed to gradually converge toward the future rate of overall economic growth. The future rate of overall economic growth for the second stage of the DCF analysis was developed using forecasts published in the Federal Reserve Bank of Philadelphia’s *Survey of Professional Forecasters*. (*Id.*, p. 23) In the third stage (year 16 forward) each company is assumed to grow at the same rate as the overall economy, which is the only sustainable growth rate for a company in the long run. (*Id.*, p. 24)

Ms. Murray’s DCF analysis for the comparable companies using their current dividend yields and the three-stage growth rates produced an average (for the proxy companies) cost of equity of 9.72%. (See AT&T/MCI Jt. Ex. 2, pp. 24-25) She pointed out that the forecasts of the long-term growth rate of the economy used in stages 2 and 3 of the analysis are *higher* than the analysts’ forecasts of earnings growth for the next five years that she used for each of the comparable companies, and thus tended to raise the cost of equity estimate above the value that would be produced by a one-stage DCF model that used only the forecasted earnings growth rates for the comparable companies. (*Id.*, p. 25) Ms. Murray also performed an alternative analysis using a single-stage (constant growth) DCF model and the comparable companies’ forecasted near-term earnings growth rate, which produced a cost of equity estimate 59 basis points *lower* than her base estimate of 9.72%. (*Id.*, pp. 24-25) In other words, her analysis showed that the use of the three-stage DCF model produced a *higher* forward-looking cost of equity estimate for SBC than would use of a single-stage (constant growth) DCF model.

Ms. Murray also employed the CAPM methodology to estimate the forward-looking cost of equity capital. The CAPM estimates the cost of equity capital based on the expected rate of return on riskless assets, the market-expected equity risk premium, and the beta of the particular company or companies under consideration. A company’s beta measures the variability of the stock’s return relative to the overall market return. (AT&T/MCI Jt. Ex. 2, pp. 26-27) She utilized forecasted betas from two respected sources, *Value Line* and BARRA, both of which show that returns for stocks of telecommunications firms move roughly in tandem with the

market as a whole. (*Id.*, p. 27) She also employed the well-known procedure of unlevering, averaging and then relevering the comparable companies' betas to account for the fact that differences in the companies' tax rates and capital structure leverage create artificial differences in their observed betas. The resulting average beta for the comparable companies was 0.917, indicating that the stock of the proxy group is slightly less sensitive to the market than the average stock. (*Id.*, pp. 27-28, 33)

A second input to the CAPM calculation, the market risk premium, is the difference between the expected returns of the stock market and a purely riskless bond. (AT&T/MCI Jt. Ex. 2, p. 29) A wide variety of means have been employed, and have the support of academicians, for developing the market risk premium, ranging from estimates based on long-term historical data (over various time periods) to purely forecasted approaches. (See *Id.*, pp. 29-31) The Joint CLECs noted that the historical risk premium based on data for the period 1926-2002 is approximately 7%, whereas the forward-looking risk premium advocated by most experts is about 4%. (The historical period of 1926-2002 is based on the use of a well-known series of historical stock market data maintained and published by Ibbotson and Associates, which begins with 1926 data.) (*Id.*, pp. 30-31) Rather than select a single method or source for the market risk premium, Ms. Murray used an average consisting of (i) the most widely-cited historical equity premium from Ibbotson and Associates and (ii) an average forward-looking equity premium based on four prominent sources (each of which used a different methodology for forecasting the equity risk premium). She gave equal weight to the historical value and to the average of the four forward-looking values. She also adjusted the various values to place them on a consistent basis in terms of the riskless rate of return assumed in calculating the respective equity risk premiums. The result was an average equity risk premium of 5.00%. (*Id.*, pp. 31-32)

To develop the forward-looking riskless rate of return, Ms. Murray averaged the 10-year forecast of the rate on 10-year U.S. Treasury notes with the current rate on 10-year Treasury notes. This produced an estimate of the average 10-year Treasury note rate expected to prevail over the next 10 years of 4.61%. (AT&T/MCI Jt. Ex. 2, pp. 32-33)

Ms. Murray's CAPM estimate of the forward-looking cost of equity capital, based on the inputs described above, is 9.19%. (AT&T/MCI Jt. Ex. 2, p. 33) She averaged this CAPM cost of equity estimate with her DCF cost of equity estimate (9.72%) to produce an overall forward-looking cost of equity capital of 9.46%. (*Id.*)

Joint CLECs responded in their reply brief to SBC's few criticisms of AT&T/MCI witness Ms. Murray's cost of equity analysis. (SBC Initial Br., pp. 75-77) They noted that SBC had contended that Ms. Murray failed to take into account that capital markets have become increasingly attuned to the risks associated with investing in the telecommunications industry. (*Id.*, pp. 75, 76-77) Joint CLECs responded that Ms. Murray's cost of equity analysis was based on data as of early 2003 and so reflects the current views of investors concerning the telecommunications industry much more so than does Dr. Avera's outdated analysis. They also noted that after the "abatement" period of this case ended, Ms. Murray performed an update of her cost of capital analysis, using data from the latter part of 2003, which found a cost of equity of 8.70% and an overall cost of capital of 7.04%. Joint CLECs further stated that Ms. Murray's use of comparable company data and published investor analysts' growth forecasts in developing

her cost of equity estimate captured the current marketplace views of investors. (Joint CLEC Reply Br., pp. 67-68)

Joint CLECs responded to SBC's criticisms that Ms. Murray (1) used a three-stage growth DCF analysis and (2) based the risk premium in her CAPM analysis on historic data. (SBC Initial Br., pp. 76-77) Joint CLECs stated that the first criticism is invalid, because use of a three-stage growth DCF model is appropriate due to the disparity between the current forecasts of growth in earnings for SBC and the comparable companies and the forecasted growth rate for the economy as a whole. (See AT&T/MCI Jt. Ex. 2, pp. 24-25) They also noted that Ms. Murray's use of a three-stage growth DCF model actually produced a higher cost of equity for SBC than if she had used a single-stage (constant growth) DCF model. (Joint CLEC Initial Br., p. 119; Joint CLEC Reply Br., p. 68; AT&T/MCI Jt. Ex. 2., pp. 24-25) Joint CLECs stated that SBC's second criticism is also misplaced, because Ms. Murray based her risk premium on both the widely-used Ibbotson & Associates historical series and on the average forward-looking risk premium from four prominent sources. (Joint CLEC Initial Br., pp. 120-21; Joint CLEC Reply Br., p. 68) Moreover, the historical data actually produced the higher risk premium. (*Id.*)

Finally, Joint CLECs stated that SBC's assertion that the near-term growth projections that Ms. Murray used in her DCF analysis understate long-term expectations for the telecommunications industry, which is in the midst of a downward correction (SBC Initial Br., p. 76), should be rejected. They noted that the current anticipated earnings growth rates represent more realistic expectations of prospects for this industry, in contrast to the overheated growth expectations for this sector of the high-flying late 1990's, which Dr. Avera used in his analysis. Joint CLECs stated that it was inconsistent for SBC to argue on the one hand that it faces increasingly severe competitive risks that must be taken into account in determining the cost of capital, while arguing on the other hand that current growth expectations are too low and that the industry growth rates seen in the late 1990's are more representative of long-term prospects and must be used in the cost of capital analysis. (Joint CLEC Reply Br., p. 69)

c. Forward-Looking Cost of Debt

Joint CLECs noted that SBC Illinois has a substantial amount of short-debt outstanding as well as long-term debt. Ms. Murray estimated the forward-looking cost of debt based on the assumption that SBC would continue to roll over both its short-term debt and its long-term debt over the next ten years. With respect to short-term debt, she determined that the historical spread between SBC Illinois' short-term debt cost and the yield to maturity on three-month U.S. Treasury notes is 0.35%. She added this spread to the forecasted interest rate on a three-month Treasury note (3.89%) 10 years in the future to obtain an estimate of the future cost of short-term debt capital for SBC, 4.24%. (AT&T/MCI Jt. Ex. 2, p. 34) She then determined the current cost of short-term debt capital for SBC as the sum of the historical spread over the three-month Treasury note yield (0.35%) plus the current three-month Treasury note rate (1.09%), or 1.44%. Ms. Murray averaged the current short-term debt cost with the future cost 10 years hence to obtain a forward-looking cost of short-term debt capital of 2.84% over the next 10 years. (*Id.*) Using the same procedure, Ms. Murray developed an estimate of 5.60% for SBC Illinois' projected long-term debt cost over the next 10 years. (*Id.*)

Ms. Murray noted that at the time SBC filed this case (December 2002), its debt was on credit watch by Moody's for possible downgrade. (AT&T/MCI Jt. Ex. 2, pp. 35-36) Moody's in fact downgraded SBC's debt in March 2003, prior to the date that CLECs and Staff filed their direct testimony. Ms. Murray took this downgrade into account in her analysis. (*Id.*) She noted that after the downgrade, the ratings outlook for SBC was "stable". (*Id.*, p. 38) Further, the average spread in the debt costs for companies with SBC's new debt rating, A1/A+, and companies with the next highest rating, Aa3/AA-, was quite small, ranging from 0.02% to 0.10% depending on the maturity of the particular debt. (*Id.*, pp. 36-37) Ms. Murray concluded that SBC should be able to obtain new debt at her forward-looking cost of debt even with the new rating. (*Id.*, p. 38) She also noted that, in stating its reasons for the downgrade, Moody's stated that it was predicated in large part on concerns about the effect on SBC's retail revenues of UNE-P based competition. They asserted that this is a separate risk from the risk associated with leasing UNE loops at wholesale, which is the risk that is to be reflected in the forward-looking cost of capital used for purposes of setting UNE rates in this case. (*Id.*, p. 37)

d. Forward-Looking Capital Structure

In determining the forward-looking capital structure (*i.e.*, the mix of debt and equity capital) to utilize in establishing the forward-looking cost of capital, Ms. Murray focused on the capital structure that best approximated SBC's target capital structure. This is the relevant capital structure for determining the cost of capital at which investors will provide an efficient amount of funds for SBC investment projects. Further, by definition, in an efficient market a firm's capital structure will adjust toward its target capital structure in the long-run. Ms. Murray noted that most economists estimate the value of debt in the capital structure by looking at its book value, since so little debt is publicly traded. Thus, the only real question in determining the proportions of debt and equity in the firm's capital structure is whether to use the book value or the market value of equity in this analysis. She reported that academic research does not provide an unambiguous basis for choosing between use of 100% book value and 100% market value for this purpose. She cited academic studies that indicate that a firm's market equity value moves towards its book equity value, as well as others that suggest that market equity values are related to the firm's target capital structure. As Ms. Murray explained, empirically the best prediction of the target capital structure incorporates both market value and book value information. (AT&T/MCI Jt. Ex. 2, pp. 38-42)

Taking into account the academic studies and literature that she reviewed, Ms. Murray developed the forward-looking capital structure by using a 50%-50% average of book and market values for equity. For book value information, she used the book capital structure of SBC Illinois. Because data on the market value of equity is not available for SBC Illinois standing alone, she averaged the market capital structures of the companies comparable to SBC (the parent company) to obtain a value for the market equity capital to use in this calculation. Using the resultant average of the market and book values of equity and the book value of debt, she developed a forward-looking capital structure of 66.12% common equity, 11.53% long-term debt and 22.35% short-term debt. This capital structure contains more equity (the most expensive form of capital) than does SBC Illinois' current book capital structure, and less short-term debt (the least-expensive form of capital) than does SBC Illinois' current book capital structure. (AT&T/MCI Jt. Ex. 2, pp. 43-44)

Joint CLECs noted that in the TELRIC I Order, the Commission adopted a forward-looking capital structure for SBC Illinois consisting of 41.2% common equity, 35.5% long-term debt and 23.3% short-term debt, as recommended by Staff. This was Ameritech's actual book capital structure, which the Commission concluded was "an accurate and suitable indicator of its future capital structure." (See TELRIC I Order, pp. 10-12) Joint CLECs pointed out that Ms. Murray's recommended capital structure contains 60% more equity and only about 1/3 as much long-term debt (and about the same amount of short-term debt) as the capital structure recommended by Staff and adopted by the Commission in the TELRIC I Order. Further, Joint CLECs contended that their recommended cost of equity and common equity component of the capital structure actually produce a higher weighted average cost of equity (*i.e.*, 9.46% X 66.12% = 6.25%) than the values adopted in the TELRIC I Order (*i.e.*, 13.40% X 41.2% = 5.52%).

e. A Check: Updated Cost of Capital Based on More Current Information

Joint CLECs noted that this case was "abated" in May 2003, virtually contemporaneously with the submission of Staff, CLEC and other intervenor direct testimony, and was not "reopened" until mid-December 2003. CLEC rebuttal testimony to Staff was submitted on January 20, 2004, and CLEC surrebuttal to SBC's rebuttal testimony was filed on February 20, 2004. Joint CLECs did not propose to modify their cost of capital recommendation submitted in May 2003 in light of more recent data and information that indicates a lower forward-looking cost of capital than 7.54% would be appropriate in this case based on more current information. A more recent analysis was, however, presented by Ms. Murray in her rebuttal testimony, and this updated analysis provides assurance that the forward-looking cost of capital for SBC has not increased since May 2003. Specifically, Ms. Murray submitted with her rebuttal testimony a forward-looking cost of capital study for SBC as of September 30, 2003, that she filed in a TELRIC proceeding before the Michigan Public Service Commission (Mich. PSC Case No. U-13531). That study took into account the FCC's comments on cost of capital principles in the *Triennial Review Order*. (AT&T/MCI Jt. Ex. 2.1, p. 14) In the SBC Michigan study, to develop a quantitative estimate of the cost of capital for a hypothetical efficient carrier subject to facilities-based competition, Ms. Murray again used data from three Regional Bell Operating Companies ("RBOC"), including SBC. She again used both a three-stage DCF analysis and a CAPM analysis to determine the forward-looking cost of equity. She developed short-term debt costs using the forward-looking yield-to-maturity for publicly-traded debt of the SBC companies. She estimated forward-looking long-term debt costs based on the yield to maturity for newly-issued ILEC 10-year bonds. Finally, she determined the capital structure using the average of the market and book capital structures for the comparable companies. (AT&T/MCI Jt. Ex. 2.1, p. 15 and Att. TLM-4) The resulting updated forward-looking weighted average cost of capital was 7.04% (*Id.*):

Component	Cost Rate	Percent of Total	Weighted Cost
Common equity	8.70%	63.71%	5.54%
Long Term Debt	4.87%	29.38%	1.43%
Short Term Debt	0.95%	6.91%	0.07%
Total		100%	7.04%

Ms. Murray explained that although her May 2003 estimate of the forward-looking cost of capital, 7.54%, appeared now to be conservatively high, it is still appropriate for this proceeding as a “not to exceed” value. (AT&T/MCI Jt. Ex. 2.1, p. 15) In light of more recent data, the 7.54% cost of capital would be ample to compensate a hypothetical efficient telecommunications carrier for the risks it faces in providing UNEs subject to facilities-based competition. (*Id.*) Further, the 7.54% forward-looking cost of capital (which incorporates a 9.45% cost of equity) remains reasonable in light of projected returns for the stock market as a whole of less than 8% per year for the next 10 years. (*Id.*)

f. Joint CLECs’ Analysis of SBC’s Cost of Capital Proposal

SBC’s cost of capital witness, Dr. William Avera, proposed that an overall cost of capital of 12.19% should be adopted for setting UNE rates in this proceeding. His proposed overall cost of capital included a 13.00% rate of return on common equity for SBC, to be applied to a capital structure containing 86% equity. (SBC Ex. 12.0, pp. 4, 7 and Sched. WEA-1, p. 1)

Joint CLECs contended that the fact that Dr. Avera’s cost of capital study was prepared in 1999, using data primarily from year-end 1998 and the first quarter of 1999, was sufficient grounds for the Commission to reject SBC’s proposal. Joint CLECs stated that SBC’s study was far too stale to form the basis for an estimate of the forward-looking cost of capital in 2004. (See AT&T/MCI Jt. Ex. 2, p. 49) They pointed out that Dr. Avera’s analysis and findings are too old to be consistent with the suggestion of the U.S. Seventh Circuit Court of Appeals that “The ICC must attempt to produce a rate that complies with TELRIC as of 2003.” *AT&T Communications of Illinois, Inc. v. Illinois Bell Tel. Co.*, 349 F. 3d 402, 411 (7 Cir. 2003) They noted that the Seventh Circuit had cautioned against combining inputs of various vintages in attempting to develop TELRIC-compliant rates. (*Id.*)

Joint CLECs also noted that SBC witness Dr. Avera argued that his 1999 cost of capital analysis and findings are still representative of the forward-looking cost of capital in 2003 and 2004, but that his arguments were not credible. Joint CLECs suggested that SBC could have engaged Dr. Avera to produce a current cost of capital study, and the fact that SBC did not do so indicates that SBC knew it would not like the results. (Joint CLEC Initial Br., pp. 128-29) However, Joint CLEC witness Ms. Murray updated Dr. Avera’s 1999 cost of capital study by reproducing his study using updated financial data for the various inputs Dr. Avera employed. (In performing the update, it was necessary for Ms. Murray to eliminate two of Dr. Avera’s comparable companies, Qwest and Broadwing, from the DCF analysis, because neither company had posted positive earnings nor paid dividends in their most recent financial quarters, and thus could not be used in a DCF analysis.) (See AT&T/MCI Jt. Ex. 2, pp. 53-62) Just this exercise of updating inputs from 1998-1999 values to early 2003 values (but otherwise using Dr. Avera’s methodologies, many of which Ms. Murray disputed) reduced Dr. Avera’s overall cost of capital by 266 basis points, to 9.53%. (*Id.*, p. 61)

Among the factors that produced this reduction in Dr. Avera’s overall cost of capital when his sources were updated were the following: (1) Because a number of Dr. Avera’s comparable companies had increased the percentage of debt in their capital structures since 1998, and the market capitalizations of his comparable companies had decreased, the equity component

of his capital structure decreased from 86% to 74.62%. (AT&T/MCI Jt. Ex. 2, pp. 54-55) (2) Consensus analysts' forecasts of growth rates for Dr. Avera's comparable companies (used in the DCF analysis) fell considerably from the first quarter of 1999 (the data he used) to early 2003. The I/B/E/S (now known as *Thomson First Call*) consensus estimates of growth rates for SBC, Verizon and BellSouth fell by an average of 495 basis points over this period. The *Value Line* growth rate estimates for these three companies declined by an average of 967 basis points over this period. Thus, the consensus growth rate estimates Dr. Avera had used no longer reflected analysts' current expectations (and in fact, diverged widely from them) by early 2003. (*Id.*, pp. 55-56) (3) The historical equity risk premium that Dr. Avera used in his CAPM analysis fell by 50 basis points from the time he prepared his study to early 2003. (*Id.*, p. 58) (4) Long-term debt costs declined considerably from the time that Dr. Avera prepared his analysis to early 2003. For example, interest rates on 30-year utility bonds rated A+/A1 (SBC's debt rating) fell to a level 91 basis points below the long-term debt costs assumed in Dr. Avera's analysis. (*Id.*, pp. 59-60)

Joint CLECs noted that Staff cost of capital witness Michael McNally also dismissed Dr. Avera's analysis as out of date. Mr. McNally noted that because Dr. Avera's study used capital structure data from year-end 1998 and capital cost data from March 1999, his capital costs were not forward-looking. (Staff Ex. 12.0, p. 35) Mr. McNally also noted that yields on 25/30-year A-rated industrial bonds declined by 91 basis points from April 1999 to March 2003. (*Id.*, p. 36) He also pointed out that SBC's outstanding long-term debt had fallen to a level 148 basis points below Dr. Avera's recommended cost of debt. (*Id.*) Finally, Mr. McNally explained that the four-year-old stock prices and growth rate estimates used by Dr. Avera cannot incorporate all the information available to investors today and thus, cannot be used to measure investors' current required rate of return. (*Id.*, p. 37)

In addition to contending that the severely outdated state of Dr. Avera's analysis is sufficient basis for the Commission to reject it without further consideration, both Ms. Murray and Mr. McNally also found serious methodological and assumption flaws in Dr. Avera's study. The significant methodological flaws identified by Ms. Murray included the following:

- Dr. Avera used simple averaging of betas for companies with disparate capital structures and tax rates to determine an estimated beta for SBC, rather than employing an appropriate levering/delivering procedure. Thus, the betas Dr. Avera used in his CAPM failed to distinguish between the business risk and financial risk of the comparable companies. (AT&T/MCI Jt. Ex. 2, pp. 62-64)
- Dr. Avera used inflated estimates of the "expectational" equity risk premium in his CAPM analysis. Among other errors, rather than relying on multiple sources to develop this risk premium, he relied on a single study whose own authors admitted that their methodology overstates the equity premium and that their estimation technique overstates the interest rate sensitivity of the equity premium. That study argued that the equity risk premium increases as interest rates decline. (*Id.*, pp. 62, 65-68) In a later article, the same authors acknowledged that their estimate of the relationship between interest rates and equity premiums was spurious and overstated. (*Id.*, p. 68) Respected academicians such as Dr. Eugene Brigham have rejected this proposition based

on empirical results. Further, the source cited by Dr. Avera did not use data from periods in which interest rates are as low as they are today; principles of statistics indicate that extending the results of this study outside the range of its underlying data may be problematic and dangerous. (See *Id.*, pp. 69-71) Not surprisingly, Dr. Avera's equity risk premium was well in excess (by some 3 to 4%) of the equity risk premium developed by Ms. Murray using an average of multiple sources, and therefore produced an excessive cost of equity estimate. (*Id.*, pp. 65-66)

- Dr. Avera used a 100% market-based capital structure, giving no consideration to book values, which resulted in an overstated 86% equity component (which correspondingly inflated his overall cost of capital estimate). Joint CLECs noted that in the TELRIC I Order the Commission established the capital structure using only actual book values; thus Dr. Avera has departed radically from the methodology previously adopted by the Commission in setting TELRIC rates. Joint CLECs noted that in contrast, Ms. Murray used the book values for debt and a 50%-50% averaging of market and book values for equity in establishing the capital structure. She testified that use of a 50%-50% market value/book value weighting in Dr. Avera's analysis would reduce his overall cost of capital estimate by 129 basis points. (AT&T/MCI Ex. 2, p. 73)
- Dr. Avera based his long-term debt costs on the costs of very long-term bonds (25 years or longer to maturity). The lives of the long-term debt that he used exceed the depreciable lives assumed for most if not all of SBC's assets in the UNE cost studies in this case. It would be unusual for a company (or any borrower) to obtain debt financing with a maturity that exceeds the life of the assets being financed. In contrast to Dr. Avera's use of 25-year and longer bonds, all of SBC's listed publicly traded debt matures in 10 years or less. The highest yield to maturity of any of these SBC bonds is 4.62%, as compared to Dr. Avera's 7.18% in his original study and updated figure of 6.27%. Similarly, the average maturity of all of SBC's outstanding long-term debt (as of early 2003) was 13 years, with an average yield to maturity of 5.70%, well below the long-term debt cost used by Dr. Avera. Thus, Dr. Avera's use of very long-term debt overstated his cost of capital compared to the use of shorter-term debt that currently carries lower interest rates. Moreover, one would expect an efficient carrier financing a new network today to take advantage of the lower interest rates available on shorter-term (*e.g.*, 10 year) bonds. (*Id.*, pp. 76-77)
- Dr. Avera failed to include any short-term debt in the capital structure, even though most of SBC's debt (and over 25% of its total capitalization) is short-term debt. The exclusion of short-term debt raised Dr. Avera's cost of capital estimate by 57 basis points (and would have had an even greater impact had Dr. Avera used a capital structure with a more realistic equity-debt ratio than 86%-14%). (*Id.*, p. 74) Ms. Murray explained that since SBC Illinois continues to have a substantial amount of short-term debt outstanding, short-term debt does play a nontrivial role in its target capital structure. She noted that SBC Illinois has repeatedly taken advantage of cheap short-term financing opportunities over

the past several years, suggesting that management sees a significant role for short-term debt in its long-run capital structure. She stated that if SBC Illinois is able to roll over this debt indefinitely, which is a reasonable expectation for a company with a strong debt rating, it will always be able to finance projects cheaply. Thus, she recommended the Commission take short-term debt account in this case as it has done in prior UNE cost proceedings. (*Id.*, pp. 74-75)

Joint CLECs also pointed out that in the TELRIC I Order, the capital structure adopted by the Commission, which was Ameritech's average actual capital structure at September 30, 1996, included 23.3% short-term debt. (TELRIC I Order, pp. 10-12) They urged that reference to the TELRIC I Order also demonstrates that Ameritech/SBC Illinois has been utilizing short-term debt as a significant component of its permanent capitalization for an extended period of time, thereby belying any assertion that the current proportion of short-term debt in SBC's capital structure is only a temporary situation. (Joint CLEC Initial Br., pp. 133-34)

Joint CLECs stated that SBC's proposed cost of long-term debt of 7.18%, which was based on the average of the March 1999 yields on A and AA-rated bonds (SBC Initial Br., p. 72), is simply too outdated to be accepted. They pointed out that long-term bond yields were at significantly lower levels in 2003 than they were in 1999. (Joint CLEC Initial Br., p. 130; Joint CLEC Reply Br., p. 70) Joint CLECs agreed with Staff that "On its face, it is virtually impossible to assert seriously that using five-year-old rates will obtain a forward-looking cost of debt." (Staff Initial Br., p. 75) Joint CLECs concluded that the long-term debt costs developed by both Joint CLEC witness Ms. Murray (5.60%) and Staff witness Mr. McNally (4.99%) are based on much more recent data and thus are far more appropriate for purposes of this case than SBC's outdated figure. (Joint CLEC Reply Br., p. 70)

Joint CLECs noted that Staff witness Mr. McNally also testified that Dr. Avera used an inappropriate capital structure in his cost of capital analysis. Mr. McNally explained that Dr. Avera had not selected an efficient capital structure, *i.e.*, one that minimizes the cost of capital and maintains a reasonable level of financial strength. (Staff Ex. 12.0, pp. 41-42) Mr. McNally noted that Dr. Avera's 86% equity – 14% debt capital structure would produce earnings before income taxes (EBIT) and earnings before income taxes, depreciation and amortization (EBITDA) interest coverage ratios in excess of the rating agency benchmarks for AAA-rated industrial bonds; whereas a reasonable level of financial strength could be achieved at much lower cost, *i.e.*, with a lower percentage of equity (the highest-cost form of capital) and a higher percentage of debt in the forward-looking capital structure. (*Id.*, p. 42)

Joint CLECs also noted that Staff witness McNally disagreed with Dr. Avera's use of the assumption that the equity risk premium increases as interest rates decline. Mr. McNally found Dr. Avera's use of this adjustment to the equity risk premium to be flawed. Mr. McNally explained that this methodology, which extrapolates current equity risk premium from historical relationships, is not appropriate for determining the forward-looking equity risk premium and the forward-looking cost of equity. (Staff Ex. 12.0, pp. 40-41)

Joint CLECs noted that Staff witness McNally also criticized other aspects of Dr. Avera's analysis. Mr. McNally pointed out that in Dr. Avera's DCF analysis, he mismatched dividend yields and dividend growth rates from different time periods. Mr. McNally pointed out that had

Dr. Avera used a consistent time period for both dividend yields and growth rates, his DCF cost of equity would be reduced by 225 basis points. (Staff Ex. 12.0, p. 39) Mr. McNally also pointed out that Dr. Avera incorrectly implemented the $b \times r$ formula (*i.e.*, earnings retention times anticipated return) in constructing earnings growth estimates. (*Id.*, pp. 39-40)

Joint CLECs disputed other arguments advanced by SBC in support of its proposal for a higher cost of capital than was adopted in the TELRIC I Order. They noted that SBC's principal argument was that because (SBC contends) the FCC (in the *Triennial Review Order*) has recently "mandate[d]" that the cost of capital for TELRIC purposes "must fully reflect the risks inherent in a fully competitive market", it is necessary that SBC receive a higher cost of capital in this case than was set in the TELRIC I Order. (SBC Initial Br., pp. 62-63) Joint CLECs stated that SBC's representation of what the FCC said about cost of capital in the *Triennial Review Order* is misleading. Specifically, the FCC did not state that the cost of capital must "reflect the risks inherent in a *fully* competitive market." (Joint CLEC Reply Br., pp. 60-61, citing *Triennial Review Order*, ¶¶680-681) Joint CLECs noted that the relevant market for cost of capital purposes in this case is the market in which SBC Illinois leases UNEs to its competitors. They asserted that while this market imposes greater risk on SBC than it faced when it was the monopoly provider of local telephone service, that risk is less than the risk inherent in other aspects of the telecommunications business, such as the long distance business. Joint CLECs agreed with Staff witness McNally who, in applying the directives of the *Triennial Review Order*, concluded that the relevant level of risk in setting UNE loop rates is somewhere between the low degree of competition of rate-regulated, exclusive franchise utility services and the high degree of competition of unregulated industrial companies. (Joint CLEC Reply Br., pp. 61-62; Staff Ex. 12.0, pp. 30, 33)

Joint CLECs also noted that with respect to the cost of common equity, which is the most expensive form of capital and the most significant component of the capital structure, the appropriate level of risk is captured through the use of comparable companies to develop the cost of equity. While there were some differences among the comparable samples selected by each of the three cost of capital witnesses, all three witnesses included the three major RBOC ILECs (Bell South, Verizon and SBC) in their respective proxy groups. These companies are generally in the same businesses, including the business of leasing UNEs pursuant to the mandate of the Telecommunications Act of 1996. Therefore, Joint CLECs stated, the relevant risks are captured through the use of comparable companies to develop the cost of capital. (Joint CLEC Reply Br., p. 62)

Joint CLECs responded to SBC's contention that its cost of capital is higher than at the time of the TELRIC I Order because there have been "dramatic decreases in its stock prices." (SBC Initial Br., p. 63) Joint CLECs stated that SBC's assertion betrays a fundamental lack of understanding of basic cost of capital theory. They pointed out that a fall in the price of a stock does not necessarily mean an increase in the company's cost of equity capital. Considering the familiar DCF equation $k = (D/P) + g$, one can see that it is possible for (i) the price (P) of a stock to decline (which will increase D/P, or dividend yield), (ii) the investor-anticipated earnings/dividend growth rate (g) to also decline, and (iii) the cost of equity (k) to remain the same (or even decrease). Joint CLECs stated that this may be exactly what has happened to SBC, since the analysts' earnings/dividend growth rate forecasts (typically used as a proxy for investor expectations of growth) for SBC and its comparable companies also fell significantly

from 1999 to 2003. They noted that if investor expectations as to the future growth of a company's earnings and dividends fall, investors probably will not be willing to pay as much for the stock, and the price will decline. None of this, however, necessarily means that the firm's cost of capital has risen. (Joint CLEC Reply Br., p. 64)

Joint CLECs stated that SBC was incorrect in asserting that "the *only* way the Commission could decrease the 9.52% cost of capital adopted in 1998 [in the TELRIC I Order] would be if it found that the risks faced by SBC Illinois in a market filled with ubiquitous facilities-based competition would somehow be *less* than the risk SBC Illinois faced in 1998". (SBC Initial Br., p. 64) Joint CLECs stated that, to the contrary, even if the Commission were to conclude that SBC Illinois faces a riskier and more competitive business environment in the leasing of UNEs than it did in 1998 (which Joint CLECs dispute), SBC's cost of capital could still be lower today than it was in 1998, due to the much lower interest rates and overall costs of capital that prevail today. They noted that Ms. Murray's and Mr. McNally's much more current analyses show that this in fact is the case. (Joint CLEC Reply Br., pp. 64-65) Joint CLECs reiterated that the fundamental problem with SBC's cost of capital is that it is based on an analysis prepared in 1999 using 1998-1999 data, which belies SBC's demands for a higher cost of capital today based on changed, more risky circumstances. (Joint CLEC Reply Br., p. 65)

Joint CLECs argued that SBC's reliance on the *Local Competition Order* and the *Virginia Arbitration Order* in support of a higher cost of capital were inapposite. They noted that in the *Local Competition Order*, issued in 1996, the FCC stated that the then-authorized FCC rate of return for telecommunications carriers of 11.25%, which had been set in 1990, may be too high. They pointed out that an 11.25% rate of return could not be regarded as representative of capital market conditions today. (Joint CLEC Reply Br., pp. 65-66) With respect to the *Virginia Arbitration Order*, Joint CLECs noted that the testimony in that case was filed in 2001 and the cost of capital analyses were based on data from 2000, so the record on which the determination was based is also outdated in relation to current interest rates and capital market conditions. They noted that the FCC WCB expressly noted that its cost of capital determination reflected the vintage of the data available and that the subsequent declines in interest rates would have yielded different results if the decision had been based on current data when the Order was released in 2003. (Joint CLEC Reply Br., p. 66; AT&T/MCI Jt. Ex. 2.2, p. 20, *Virginia Arbitration Order*, footnote 203)

Joint CLECs emphasized that this is not a traditional utility rate case in which the cost of capital is being applied to a depreciated original cost rate base. Rather, in setting SBC's UNE rates, the cost of capital determined by the Commission will be applied to the cost of a newly-constructed network, with all facilities and equipment priced at current prices. They stated that what SBC Illinois will receive is essentially a fair value rate base (unreduced by accumulated depreciation), which removes the typical utility risk associated with having long-lived plant whose current replacement value far exceeds the depreciated original cost used for ratemaking purposes. They suggested that providing a full fair value rate base (with no reduction for accumulated depreciation) and then applying a 12.19% rate of return (with a 13.0% cost of equity and an 86% equity component in the capital structure) to it, as SBC proposes, would be extremely generous. (Joint CLEC Reply Br., pp. 66-67)

g. Joint CLECs' Analysis of Staff's Cost of Capital Proposal

Staff witness Mr. McNally testified that the cost of capital that should be used in setting SBC Illinois' UNE rates in this proceeding should be 8.62%. Joint CLECs provided a comparison of the components of their cost of capital proposal with the components in Mr. McNally's proposal (Joint CLEC values in brackets) (Joint CLEC Initial Br., p. 135):

Component	Cost Rate	Percent of Total	Weighted Cost
Common equity	12.44% [9.46%]	51.00% [66.12%]	6.34% [6.25%]
Long Term Debt	4.99% [5.60%]	44.22% [11.53%]	2.21% [0.65%]
Short Term Debt	1.47% [2.84%]	4.78% [22.35%]	0.07% [0.64%]
Total		100%	8.62% [7.54%]

Joint CLECs pointed out that although Mr. McNally's overall cost of capital estimate is 108 basis points higher than that of AT&T witness Ms. Murray, and Mr. McNally's cost of equity estimate is 298 basis points higher than Ms. Murray's, Mr. McNally's use of a lower equity percentage in the capital structure results in a weighted cost of equity (6.34%) that is only 9 basis points higher than Ms. Murray's weighted cost of equity (6.25%). Joint CLECs stated that there thus is consistency between Ms. Murray's and Mr. McNally's conclusions in that their respective cost of equity recommendations and equity components of the capital structure reflect the relationship between leverage and required equity return. Joint CLECs also noted that Ms. Murray determined higher cost rates for long-term debt and short-term debt than did Mr. McNally. Accordingly, the predominant reason for Mr. McNally's higher overall cost of capital estimate is his inclusion of 44.22% long-term debt and only 4.78% short-term debt in the capital structure, whereas Ms. Murray included more short-term debt (22.35%) and less long-term debt (11.53%) in the capital structure. (Joint CLEC Initial Br., pp. 135-36)

Joint CLECs stated, however, that Mr. McNally's 12.44% cost of equity estimate is excessive. They stated that Mr. McNally's higher cost of equity estimate appears to result primarily from his use of a constant growth DCF model rather than a multi-stage growth model. They stated that this was inappropriate because the analysts' forecasted five-year growth rates for the firms in Mr. McNally's comparable companies noticeably exceeded forecasts of long-term economic growth. (AT&T/MCI Jt. Ex. 2.1, pp. 4, 15-17) They also pointed out that the consensus growth rates for the firms in Mr. McNally's comparable sample dropped by some 200 basis points from the data he used to prepare his direct testimony (May 2003) to January 2004. (*Id.*, pp. 4, 17-18) Joint CLECs further noted that in the most recent proceeding in which Staff had to determine SBC's cost of equity, Dockets 98-0252/98-0335 (Cons.), Staff used a multi-stage DCF growth model. (Staff Ex. 12.0, p. 9; AT&T/MCI Jt. Ex. 2.1, pp. 3-4)

Joint CLECs also contended that Mr. McNally's use of the constant growth DCF model also affected his CAPM analysis, because he used a constant-growth DCF calculation for the S&P 500 in developing his equity risk premium estimate, resulting in an equity risk premium that is extremely high and out of line with long-term economic growth forecasts. (AT&T/MCI Ex. 2.1, pp. 5-6, 17) Ms. Murray pointed out that Mr. McNally's 8.89% equity risk premium was out of line with all reputable estimates of which she was aware. (*Id.*, p. 19) She noted as an example that the Ibbotson Associates long-horizon expected equity risk-premium, constructed

using historical data for the period 1926-2002 and published in 2003, is 7.0%. (*Id.*, pp. 19-20) Further, in an early 2003 article, Ibbotson and Chen estimated the forward-looking equity risk premium to be approximately 5.9%. (*Id.*, p. 20) Joint CLECs stated that Mr. McNally's use of an extremely high equity risk premium increased his CAPM cost of equity estimate by 200 to 300 basis points over the results he would have obtained based on these sources. (*Id.*, pp. 21-22)

Joint CLECs further criticized Mr. McNally's cost of equity analysis on the grounds that his comparable sample, consisting of seven companies, included companies that are not comparable in risk to SBC. They stated that two of the companies have much lower bond ratings than SBC, indicating a much higher degree of risk for those companies. In addition, they stated that two of his other companies have a high percentage of non-wireline operations and are not included in the same industry groupings as SBC and other ILECs published by recognized sources such as Thomson Financial Network and Yahoo Finance. (AT&T/MCI Jt. Ex. 2.1, pp. 18-19) Joint CLECs contended that estimating the cost of equity for the UNE line of business by looking at firms that are perceived to be far riskier than SBC or firms in an industry grouping with much higher projected earnings growth rate than SBC and other ILECs, as Mr. McNally did, does not provide a reasonable or accurate measure of investors' expectations for SBC's UNE line of business. (*Id.*, p. 19)

C. Other Loop Recurring Cost Modeling And Input Issues

1. Cable and DLC Installation costs/factors

The Joint CLECs argued that the use of linear loading factors to derive installation costs is inappropriate for a multitude of reasons. AT&T presented the joint testimony of Messrs. Brian Pitkin and Steven Turner on this subject. (AT&T Exhibits 2.0, 2.1, 2.2). Joint CLEC witnesses Mr. Starkey and Mr. Balke also provided testimony demonstrating that the use of linear loading factors to derive installation costs is both unreliable and not TELRIC compliant.

First, the Joint CLECs argued that these factors are inherently unreliable, as there is no evidence of any linear relationship between material costs and installation cost – *e.g.*, a \$1,000,000 Picasso painting takes the same time to hang on the wall as a \$20 Velvet Elvis. They stated that it is SBC's burden alone to prove the reasonableness of its proposed TELRIC costs. *See Local Competition Order*, ¶ 680. Instead of providing such evidence, the Joint CLECs posited that SBC and its witnesses consistently failed to support LoopCAT's assumption that there is any linear or consistent relationship between material and installation costs. In a discovery response attributed to its chief cost witness Mr. Smallwood, SBC admitted that installation costs *are not* directly proportional to the cost of material. (AT&T Cross Ex. 19). At hearing, SBC's chief engineering witness, Mr. Randall White, was shown this response and fully agreed. (Tr. 497). SBC has similarly admitted that the costs of installing different sizes of DLC remote terminals ("RT") are the same, despite the fact that the larger DLC is more expensive to purchase. (AT&T Ex. 2.0, p. 47). The Joint CLECs argued that SBC has simply not met its burden of proof on this issue. For this reason alone, the Joint CLECs urged the Commission to reject the use of linear loading factors in LoopCAT.

Moreover, the Joint CLECs presented direct evidence that the use of linear loading factors distorts UNE costs. For example, the Joint CLECs stated that the use of linear loading

factors leads LoopCAT to assume that the cost of installing different types of line cards in a Digital Loop Carrier (“DLC”) system is different depending on the underlying cost of each card. In fact it would take nearly identical amounts of time to install two different line cards, no matter their prices. (AT&T Ex. 2.0, pp. 44-45) They argued that linear loading factors similarly distort the installation costs of DLC systems. SBC has admitted that, when estimating the cost of installing a DLC system, its engineers assume that it costs the same to install no matter what its price. (AT&T Ex. 2.0, p. 47) Joint CLECs claimed that linear loading factors assume just the opposite. These facts bluntly contradict SBC’s use of linear loading factors to estimate total installed costs for DLC systems, according to the Joint CLECs.

In fact, as the Joint CLECs pointed out, SBC witness Mr. Smallwood admitted at hearing that he did not have SBC engineers do a “sanity check” on LoopCAT to ensure that the installation costs derived by its use of linear loading factors were reasonable. (Tr. 740-41). Moreover, Joint CLECs pointed out that when an SBC engineer actually volunteered a concern with the results of the LoopCAT linear loading factor approach -- as Mr. White did regarding DLC installation costs -- SBC’s cost team and Mr. Smallwood in particular ignored those concerns. (Tr. 485-491, 724). Further, Joint CLECs argue Mr. Smallwood also ignored, and could not explain, why SBC’s switch of source data (from PICS/DCPR to General Ledger) caused the installation factor for DLC plug-ins to increase several fold. (AT&T Ex. 2.1, pp. 46-47). Thus, the Joint CLECs conclude that there is no reason to believe that SBC’s installation costs derive reasonable installation costs.

The Joint CLECs further explained that the large variance in SBC’s historic installation factors demonstrates why SBC’s linear loading factor methodology is demonstrably flawed and unreliable. For example, Joint CLECs stated while material purchases can be easily reduced or eliminated during the current economic slowdown, labor costs are not as readily avoidable. Joint CLECs argued that SBC’s data demonstrates that this phenomenon caused massive fluctuations on a year-to-year basis for its loading factor for cable. (AT&T Ex. 2.0, pp. 42-43). The Joint CLECs concluded that this degree of short-term variability demonstrates that loading factors, derived by short-term data, cannot be the basis for long-term forward-looking cost assumptions, which, by definition, are supposed to abstract from short-term temporary phenomenon such as economic downturn.

In addition to their unreliability, the Joint CLECs further argue that SBC’s linear loading factors are inappropriate because they are derived from equipment accounts that include a host of different types of equipment, some of which is more pre-fabricated than others. The situation with DLC equipment is a troubling example of this problem, according to the Joint CLECs. The record was clear that, unlike other equipment, SBC’s DLC vendor, Alcatel, delivers to SBC (as its witness Donald Palmer explained) a “pre-assembled” system that leaves SBC with little cost of installation. (AT&T Ex. 2.0, pp. 63-67). Thus, argued the Joint CLECs, LoopCAT wrongly applies a fully loaded installation factor to DLC material costs to the Alcatel contract prices, resulting in significant and inappropriate double counting of DLC installation costs.

Linear loading factors are also inappropriate, according to the Joint CLECs (and Staff), because they are inconsistent with the forward-looking TELRIC pricing methodology. Joint CLECs stated SBC derived its linear loading factors by using embedded accounting data from systems such as its General Ledger. They claimed that SBC’s DLC installation factors are

derived based on the material to total cost relationship for backward looking equipment (such as DAMLs, older DLCs, and repeaters) that even SBC does not assume in its forward-looking study. (Tr. 477-482). This fact, according to the Joint CLECs, begs the question of how SBC's linear loading factors can be applied to forward-looking, efficient equipment when they are based upon the relationship between material and installation costs of backward-looking, inefficient DLC and electronic equipment. Joint CLECs pointed out the FCC has specifically prohibited the use of embedded costs in TELRIC cost studies. 47 C.F.R § 51.505.

Moreover, the Joint CLECs agreed with the Staff that embedded linear loading factors fail to reflect economies of scale demanded by the TELRIC methodology. Joint CLECs posited that SBC's embedded relationships of installation costs to material costs reflect SBC's experience with construction projects that are much smaller than those that are associated with a scorched node, forward-looking cost study as required by the FCC. *Local Competition Order*, ¶ 685.

In addition, the Joint CLECs explain that linear loading factors are also unreliable because they are based on "black box" accounting databases that are not subject to easy review. The perfect illustration of this fact, according to Joint CLECs, came when SBC admitted that its use of the PICS/DCPR database to calculate its DLC installation factor resulted in a significant "cost overlap" of minor material costs. Now, SBC has replaced the PICS/DCPR black box with another, the General Ledger. The Joint CLECs explained that they have not had time to look behind this new black box, but they suspect that it may exhibit similar problems. (AT&T Ex. 2.1, pp. 28-29). The Joint CLECs therefore cautioned the Commission not to rely on data that has not been subject to scrutiny.

CLECs pointed out that other states, including Florida¹⁰ and Georgia¹¹, and FCC decisions favor a bottom-up approach to calculating installation costs. After a multi-year review of cost models and cost model inputs with comments filed from across the industry, the FCC adopted a bottom-up methodology for use in the USF Synthesis Model.

For all of these reasons, the Joint CLECs urged the Commission to reject the use of linear loading factors in SBC's LoopCAT model.

The Joint CLECs sought to restate SBC's installation costs from the bottom up. Messrs. Pitkin/Turner used SBC's own data to conduct a reliable bottom-up approach. Through discovery, they gained access to information from SBC's internal cost estimation system, JAMS, in order to determine and evaluate how SBC estimates average construction costs for its internal purposes. Using this data, they were able to eliminate most of the loading factors employed in

¹⁰Florida Public Service Commission, *Investigation into pricing of unbundled network elements*, ORDER NO. PSC-01-1181-FOF-TP, May 25, 2001, p. 187.

¹¹Georgia Public Service Commission, *Review of Cost Studies, Methodologies, Pricing Policies, and Cost Based Rates for Interconnection and Unbundling of BellSouth Telecommunications, Inc.'s Services*, Commission Order, Docket No. 14361-U, March 18, 2003, p. 13.

LoopCAT and replace them with SBC's own "average" construction cost estimates derived from JAMS.

Messrs. Pitkin/Turner also restated the DS-1 and DS-3 costs appropriate for both hard-wired and plug-in equipment. In order to develop the bottom-up installation cost for DS-1 and DS-3 equipment, Messrs. Pitkin/Turner developed their own time estimates due to the fact that JAM data for this equipment was unusable and incomprehensible. Those estimates are provided in AT&T Exhibit 2.0 at pages 59-60. These estimates, according to the Joint CLECs, are reasonable and consistent with the forward-looking TELRIC methodology and should be adopted.

The Joint CLECs presented considerable evidence affirming that SBC uses JAMS data to estimate the costs of construction projects, including installation costs. The SBC-provided JAM documentation established that: (i) JAMS is used on a daily basis by SBC's engineers to estimate the costs of construction jobs, (ii) JAMS provides average costs for a job, (iii) SBC checks its vendor invoices against the JAMS estimates, and SBC stops payment on and checks invoices that exceed the JAMS estimate. (AT&T Ex. 2.0, pp. 48-53).

The Joint CLECs urged the Commission to reject as wholly unsubstantiated SBC's criticisms of the Joint CLEC use of JAMS. SBC argues that the JAMS data relied upon, which was provided by SBC in discovery, is missing certain types of costs. However, Joint CLECs argued that SBC neither described or quantified these allegedly missing costs, nor did its witnesses bother to check whether Messrs. Pitkin/Turner captured some or all of these "missing" costs by applying other factors (*e.g.*, engineering, power, and land and building factors) to the JAMS data. In fact, Joint CLECs argued that the evidence indicates that Messrs. Pitkin/Turner did just that.

The Joint CLECs pointed out that SBC witness Mr. White's criticisms of AT&T's use of JAMS are baseless. Mr. White claimed that the JAMS estimates upon which Pitkin/Turner relied somehow drastically understated SBC's actual costs, and SBC argued that JAMS cannot provide "total" cost of a project. However, Joint CLECs claimed that Mr. White's testimony is directly contradicted by SBC's internal documentation (described above), all of which establishes the fact that SBC uses the JAMS estimates to track its actual expenditures and to estimate "total" project costs, and, in fact, SBC refuses to pay for jobs that overrun those estimates.

Mr. White claimed that there could be "variances" and unexpected circumstances that arise on a job. However, the Joint CLECs asserted that as the JAMS documentation quoted above indicates, JAMS provides average cost estimates. Averages, by their very nature, take into account the different circumstances that might be found on differing jobs, according to the Joint CLECs.

The Joint CLECs also pointed out that SBC's criticisms of the Joint CLEC use of JAMS is disingenuous, as SBC provided JAMS data in response to AT&T data requests seeking the JAMS data "as an engineer would use the JAM system" in order "to estimate the total installation cost associated with given types of projects." (AT&T Cross Ex. 20; AT&T Ex. 2.0, p. 50, 70). Joint CLECs argued that SBC, therefore, cannot argue that JAM estimates it provided, and which AT&T used and relied upon, were somehow flawed.

Moreover, Joint CLECs argued that Mr. White's claim – that AT&T's JAM data left out certain costs – is wholly without merit. For example, in regard to the aerial and underground JAMS estimator reports used by Mr. White (RSW-R1 and R3) to compare to Messrs. Pitkin/Turner's JAMS estimates, the Joint CLECs stated that Mr. White inflated those JAMS estimates by including significant labor costs associated with placement of telephone poles and conduit, as well as costs associated with rights of way. (SBC Ex. 8.1, Sched. RSW-R1 p. 2, Sched. RSW-R3, p. 2 (under column FRC); Tr. 563-568) His use of those exhibits to discredit AT&T's use of JAMS ignores the fact that the "costs" that Mr. White alleges Messrs. Pitkin/Turner "left out" were captured by Messrs. Pitkin/Turner when they applied other loading factors – just as in SBC's LoopCAT model (e.g., land and building, engineering, conduit, and pole factors). Therefore, the Joint CLECs concluded that Mr. White's comparison is flawed, as are his criticisms.

In fact, Mr. White's other exhibit (RSW-R2) purported to reflect a JAMS estimate for a "typical" installation job for installing 1,000 feet of buried cable. Yet for that job, Joint CLECs stated that SBC's loading factors would result in a 66% overstatement in cable installation costs even when compared to Mr. White's alleged "typical" JAM estimate. Clearly, according to Joint CLECs, this exhibit only confirms that Messrs. Pitkin/Turner's JAMS estimates are much more in line with reality than SBC's installation factors.

Finally, the Joint CLECs cited to sworn testimony given by SBC witness Mr. Gordon Fletcher – who is Director SBC Outside Plant Planning in Illinois and Wisconsin – in a Wisconsin TELRIC cost proceeding. (AT&T Ex. 2.2, pp. 12-14). Joint CLECs point out that in that proceeding, Mr. Fletcher confirmed that SBC's engineers use JAMS on a daily basis to estimate costs, and he further agreed that JAMS provides "reliable" cost estimates.

CLECs noted that Messrs. Pitkin/Turner slightly modified the JAMS data provided by SBC. Specifically, Messrs. Pitkin/Turner made two modifications to the JAMS data: (1) they modified the labor rates to reflect the labor rates proposed by AT&T witness Mr. Flappan, and (2) they modified the "set up" times in the work installation estimates to account for the efficiencies of scale and scope inherent in a TELRIC study.

As Messrs. Pitkin/Turner explained, the JAMS estimates reflect smaller construction projects associated with maintaining and expanding a large network that is already in place. (AT&T Ex. 2.0, pp. 53-55) They stated that these small projects fail to encompass the efficiencies in travel and setup times associated with the initial build-out of a network. Joint CLECs noted that TELRIC mandates that the Commission consider this type of build-out.

Therefore, the Joint CLECs urged the Commission to adopt the modified JAMS setup times as appropriate in order to make those times TELRIC-compliant.

Aside from the cable installation factors, the Joint CLECs further provided evidence that the use of linear loading factors substantially overstates the installed costs of DLC equipment. The Joint CLECs therefore urged the Commission to either adopt the recommendations of AT&T's witnesses who relied upon the SBC Project Pronto documentation to complete a bottom-up analysis of DLC installation costs, or rely upon one of the many unbiased data points on the record.

In rebuttal, the Joint CLECs pointed out that SBC conceded that there was a double count, or as Mr. Smallwood euphemistically called it an “overlap” in costs, in SBC’s use of the PICS/DCPR data to derive its DLC installation factors. Instead of attempting a “bottoms up” estimate of the cost of installing a DLC, SBC addressed this double count by replacing the source data from PICS/DCPR with its General Ledger data. The Joint CLECs maintained that SBC further modified its DLC installation factor by using a more specific account (257c as opposed the generic x57c account) to derive its factor. The Joint CLECs stated that the result of these two changes in data sources was that SBC’s hard-wire installation factor dropped by some 80%, thereby resulting in approximately a 38% cost decrease for a 2016 DLC-RT (and a 44% cost decrease for the 672 DLC-RT).

However, the Joint CLECs contended that the total cost of the 2016 DLC-RT remains extremely high, with a disproportionate portion of those costs still relating to installation. (AT&T Ex. 2.2, pp. 3-4) The Joint CLECs provided several other sources of information, which they stated affirm the reasonableness of the AT&T cost estimates based upon SBC’s Project Pronto business case.

First of all, in the Texas TELRIC proceeding, John Trott, SBC Director of outside plant planning for engineering and construction for Southwestern Bell, testified that the total cost of a DLC 2016 DLC-RT – including installation, as well as material, line cards, land, and power – ranged between \$120,00-\$150,000 (average of \$135,000). (AT&T Ex. 2.0, p. 72-76) This estimate is substantially less than the LoopCAT assumed cost of a 2016 DLC-RT excluding line cards, as the Joint CLECs pointed out.

In addition, SBC’s own Project Pronto business case conflicts with the LoopCAT cost estimates for a DLC-RT, according to the Joint CLECs. AT&T used this business case to restate DLC installation costs in LoopCAT. The Joint CLECs stated that in that SBC-produced documentation, SBC provided significant data regarding the installation costs of Alcatel Litespan 2000 DLC-RTs. (AT&T Ex. 2.0, pp. 67-70) Again, according to Joint CLECs, this installation cost estimate is significantly lower than the DLC costs in LoopCAT, and otherwise highlights the unreasonableness of SBC’s position.

This Project Pronto documentation, the Joint CLECs pointed out, is particularly persuasive as it reflects SBC’s assessment of the forward-looking cost of engineering and installing a DLC system. Thus, Messrs. Pitkin/Turner used this Project Pronto data to restate SBC’s LoopCAT, by using the EF&I (Engineering Furnish and Install) value from the Project Pronto documentation to calculate DLC installation costs in lieu of SBC’s flawed linear loading factor approach. (AT&T Ex. 2.0, pp. 68-69, Figure 4) They claimed that the Joint CLEC restatement of these costs results in a total cost of a DLC system very much in line with SBC witness Mr. Trott’s estimates given in the Texas TELRIC proceeding. SBC argued that the Project Pronto business case does not include certain costs. However, the Joint CLECs pointed out that its witness who made this claim, Mr. Smallwood, could not identify or quantify those allegedly missing costs. (Tr. 771-773) His criticisms, therefore, are without any basis, according to the Joint CLECs.

In addition, the Joint CLECs pointed out that the SBC JAMS data is consistent with the Joint CLEC estimate. (AT&T Ex. 2.0, pp. 70-72, Attachment BFPSET-6 and BFP/SET-7) They

stated that even multiplying the estimated JAMS hours by a \$100/hour labor rate makes it impossible to reconcile this time estimate with SBC's DLC installation costs in LoopCAT to install a DLC-RT. (AT&T Ex. 2.2, p. 7 (Figure 2))

Finally, the Joint CLECs pointed out that in a Wisconsin TELRIC case SBC acknowledged that SBC's Alcatel contract already includes much of the installation cost for DLC systems and that SBC should not therefore utilize the higher linear loading factor for DLC equipment.¹² According to the Joint CLECs, this begs the question of why SBC has chosen to rely upon its obviously inflated loading factor here when it did not do so in Wisconsin, despite the fact that the equipment at issue in the Wisconsin proceeding and in this proceeding was obtained pursuant to the same Alcatel contract. The Joint CLECs urged the Commission to dismiss SBC's after-the-fact explanation of the Wisconsin admission as a mistake. They asserted that SBC did not attempt to fix this problem in Wisconsin, and only claimed error when it arrived here with an inconsistent position.

Based on all these reliable data sources, the Joint CLECs urged the Commission to reject SBC's DLC installation costs and order that LoopCAT be revised to include the DLC installation costs as proposed by Messrs. Pitkin/Turner. In the alternative, the Joint CLECs urged the Commission to adopt DLC installation costs in line with Mr. Trott's estimates, or the JAMS estimates, both of which are on the record.

2. Copper/fiber crossover point

The Joint CLECs did not provide any recommendations regarding this issue.

3. Other DLC investment cost issues

a. Remote terminal cabinet sizes

The Joint CLECs point out that SBC's inclusion of these smaller DLCs caused costs to increase. (AT&T Ex. 2.1 pp. 50-53) While the Joint CLECs disagree with SBC's application of the Staff recommendation, they stated that if using smaller DLCs would not reduce SBC's costs then it would be wholly inappropriate to use the smaller DLCs, as this would not be least-cost, most efficient. (AT&T Ex. 2.1, p. 51; AT&T Ex. 2.2, pp. 2-6) At hearing, Staff witness Mr. Koch agreed that he would reconsider his recommendation to utilize smaller DLC-RTs if it increased costs. (Tr. 1918-1919) Thus, the Joint CLECs believed there is no reason for the Commission to adopt SBC's application of this Staff recommendation, which caused DLC costs to increase.

b. Alcatel discounts

The Joint CLECs contended that the Commission should require SBC Illinois to modify its LoopCAT model to incorporate the cost reductions associated with the application of two Alcatel DLC equipment discounts for which SBC has failed to account in LoopCAT. The record

¹²Before the Public Service Commission of Wisconsin, *Investigation Into Ameritech Wisconsin's Unbundled Network Elements*, Docket No. 6720-TI-161, p. 146 (hereafter "Wisconsin Order").

reflects that in addition to the February 2003 price list that forms the basis for the Alcatel DLC equipment prices used as LoopCAT inputs, SBC's contract with Alcatel calls for two additional discounts on top of the then-effective price list, which includes certain volume-contingent discounts. (SBC Ex. 15.0, Schedule DGP-R15, p. 3, ¶ F)

The Joint CLECs pointed out that this contract provision carries no conditions other than the mere passage of time. They noted that SBC witness Mr. Donald Palmer, who sponsored SBC Illinois' testimony regarding the Alcatel contract, admitted on cross-examination that the SBC/Alcatel agreement, including the above-quoted amendment, was neither modified nor terminated prior to the first additional discount date. (Tr. 1346-1347)

The Joint CLECs therefore believed that Commission should conclude that the fact that SBC chose to enter into further negotiations with Alcatel prior to the receipt of the first discount does not excuse SBC from applying that discount in LoopCAT, since Mr. Palmer admitted that at the end of the renegotiations with Alcatel, *SBC will receive something of at least comparable value* in exchange for voluntarily foregoing the first discount to which it was unconditionally entitled. (Tr. 1350-51, 1352 (emphasis added)) The Joint CLECs argued that it would be inappropriate and contrary to TELRIC's forward-looking, least-cost, most-efficient principles for the Commission to force the Joint CLECs to absorb the associated costs of SBC's decision to reap a different, but equal, benefit under a subsequent Alcatel contract modification simply because SBC determined to forego its original entitlement there under.

Furthermore, the Joint CLECs pointed out that SBC *will* get a benefit in exchange – and an equivalent one at that. (Tr. 1366-1372) While Mr. Palmer could not place a specific dollar value on these benefits (Tr. 1366; 1371-72), his testimony demonstrated that their value would be equivalent to the discounts that SBC passed up. Therefore, the Joint CLECs argued, the first Alcatel discount should be included in the LoopCAT cost study as the best estimate of the cost reduction associated with SBC's forthcoming new amendment. As Mr. Palmer admitted, the Indiana Commission agreed with this position in its recent TELRIC order. (Tr. 1353-1534; 1360-1361; *see also* Indiana Order, p. 46)

For the same reasons, the Joint CLECs explained that the second discount reflected above (*see* DGP-R15) should also be included in SBC's cost study, since it would accrue within LoopCAT's forward-looking period. SBC has apparently chosen to forego this second unconditional discount in lieu of an equivalent benefit to be determined when SBC's and Alcatel's negotiations end. The Joint CLECs posit that the benefit of that cost savings accruing within the study period should flow through to the Joint CLECs. For these reasons, and to comply with TELRIC's forward-looking principles, the Joint CLECs request that the Commission require SBC to include the second discount in the LoopCAT cost study.

c. Mix of Universal Digital Loop Carrier (“UDLC”) and Integrated Digital Loop Carrier (“IDLC”) facilities

The Joint CLECs urged the Commission to direct that LoopCAT assume 100% DLC technology. The Joint CLECs noted that the record includes extensive technical engineering testimony on this subject, which established that IDLC is the least-cost, most efficient network technology, and that IDLC can be unbundled based on currently available technology. (*See*

AT&T Ex. 2.0, pp. 140-146, AT&T Ex. 2.1 pp. 56-57, 64-65) Moreover, the Joint CLECs stressed that the conclusions of AT&T witness Steven Turner on this topic are fully supported by the FCC. In its *Virginia Arbitration Order*, the FCC Wireline Competition Bureau found that the use of UDLC in developing unbundled loop costs is *inconsistent* with TELRIC. The *Virginia Arbitration Order* put to rest the repeated ILEC argument that it is not technically feasible to unbundle IDLC, and directed Verizon to include 0% UDLC and 100% IDLC in its TELRIC cost study.¹³ In its recent TELRIC order, the Indiana Commission followed this FCC pronouncement, directing SBC to include 100% IDLC in LoopCAT.¹⁴

The Joint CLECs argued that the Commission should direct SBC to modify LoopCAT to assume 100% IDLC technology, as proposed by the Joint CLEC witnesses.

d. Number of remote terminals per COT

The Joint CLECs explained that SBC's study relies on an arbitrarily low number of DLC-RTs per ILDC-COT. Given that current IDLC technology is capable of handling five DLC-RTs for each DLC-COT, the Joint CLECs explain that SBC's approach overstates the cost of DLC-COT equipment. (AT&T Ex. 2.0, pp. 148-149; AT&T Ex. 2.1, pp. 66-67) The Joint CLECs therefore recommended that the Commission adopt Messrs. Pitkin/Turner's modification of LoopCAT to more appropriately reflect four DLC-RTs for each DLC-COT deployed, which they posited is more consistent with efficient outside plant deployment.

e. Calculation and application of building cost factor

The Joint Joint CLECs strongly supported Attorney General witness Mr. Dunkel's recommendation that the Commission adjust SBC's application of the building factor to DLC equipment. (AT&T Ex. 2.1, p. 8) In fact, the Joint CLECs believed that application of Mr. Dunkel's recommendation will serve to bring DLC installation costs more in line with the numerous reasonable data points described above in the discussion of DLC installation costs. If the Commission does not accept Mr. Dunkel's adjustment, then it will be adopting installation costs that are much higher than either those recommended by Mr. Dunkel, or the modified installation factors proposed by Staff witness Mr. Lazare. (AT&T Ex. 2.1, pp. 7-9) In short, the Joint CLECs pointed out that Mr. Dunkel's building factor adjustment is critical to bring SBC's DLC installation costs in line with estimates provided by every other party in this proceeding.

f. Allocation of Shared DLC Components

The Joint CLECs pointed out that the Alcatel Litespan 2000 equipment included by SBC in its cost study can provide voice service and DSL service over a single loop. In fact, they noted one of the main reasons for deploying this particular form of NGDLC remote terminal is to enable SBC to offer both voice and data services. Because of this, the Joint CLECs explained that the FCC's cost causation rules require some allocation of costs to DSL. 47 C.F.R. § 510.507

¹³*Virginia Arbitration Order*, ¶¶ 312, 315, 322.

¹⁴Indiana Order, p. 47

and 51.509; *Local Competition Order*, ¶ 694 (“The costs of shared facilities shall be recovered in a manner that efficiently apportions costs among users.”)

AT&T and Staff proposed to identify the voice and DSL service cost-causing percentages for the DLC-RT. Based on capacity of the DLC, the record reflects that 75 percent of the capacity of the DLC-RT should be allocated to voice services and the remaining 25 percent of the capacity should be allocated to DSL services. (AT&T Ex. 2.0, pp. 136-140).

Moreover, the Joint CLECs pointed out that SBC used the exact 25% apportionment to DSL services in TELRIC cost studies filed with this and other state commissions. In ICC Docket No. 00-0393, when SBC was asked by Commissioner Squires to: “Please provide the cost studies and all supporting documentation and assumptions SBC/Ameritech has developed to arrive at the TELRIC rates found” in its Broadband UNE tariff, SBC provided a cost study that apportioned 25% of the DLC costs to DSL services. Order On Second Rehearing, ICC Docket No. 00-0393 (March 29, 2002), pp. 10-12. SBC has filed cost studies using that same 25% allocation in Texas. (AT&T Ex. 2.1 p. 73). The Joint CLECs urged the Commission to reject SBC’s convenient flip-flop on this issue, as did the Indiana Commission in its recent TELRIC order.

g. Remote terminal investment cost allocation

Another Joint CLEC-identified flaw in SBC’s DLC assumptions in LoopCAT is that SBC incorrectly allocates shared facilities on a DS-0 equivalent basis. The Joint CLECs argued that from a space standpoint, the DS-1 loop does not consume 24 times the common equipment capacity of the 2-wire analog loop, but (assuming IDLC) only 4 times the capacity.

The real issue, according to the Joint CLECs, is whether the remote terminal exhausts first due to bandwidth limitations (SBC’s position) or space exhaust (CLEC position). If SBC were to utilize the most efficient remote terminal configuration available to it – IDLC – the Joint CLECs contended that there is no question that the limiting characteristic would be line card space. (AT&T Ex. 2.1, pp. 69-70) Thus, assuming the Commission follows the lead of the FCC and orders the use of 100% IDLC in SBC’s TELRIC cost study, the Joint CLECs believed that it only makes sense for the Commission to reject SBC’s attempt to overstate the cost of its DS-1 services by allocating 24 times the investment to those services. Instead, the Joint CLECs urged the Commission to order an allocation factor of 4. They noted that the Indiana and Georgia commissions have done the same.

4. Premises termination costs

a. NID and Drop Wire Installation costs (including travel times)

b. Adjustment to remove double-counting

CLECs pointed out that SBC has chosen not to use linear loading factors to restate its NID/Drop costs. Instead, they stated that it has independently built up those inflated costs. This fact became apparent, they argued, in the manner that SBC addressed the NID/Drop double count found by Attorney General witness Mr. Dunkel.

The Joint CLECs contended that the only plausible reason for SBC's inconsistent approach is that it results in higher, inflated costs. Notably, as Messrs. Pitkin/Turner pointed out, if SBC had used linear loading factors to restate its NID/Drop costs, it would have resulted in NID/Drop costs that are a fraction of the costs resulting from SBC's "independent" cost development. (AT&T Ex. 2.1, p. 49)

The Joint CLECs contended that SBC cannot have it both ways. They stated that if this Commission finds that linear loading factors are an appropriate way to determine installation costs, then the Joint CLECs urged it to order SBC to use that approach to calculate its NID/Drop installation costs. Otherwise, it will be allowing SBC to use that approach only when it favors SBC, according to the Joint CLECs. The Joint CLECs proposed that the Commission require SBC to consistently use its linear loading factor approach and not choose to use "bottoms-up" costs for a few categories because SBC's flawed implementation of that approach artificially inflates costs. The Joint CLECs pointed out that if SBC is right that linear loading factors derive "reasonable installation costs" on average, then SBC cannot carve out certain equipment from application of linear loading factors. Otherwise, SBC will have tampered with the alleged "averages" that it claims makes its use of linear loading factors appropriate.

On the other hand, if the Commission determines that a bottoms-up approach is appropriate (which the Joint CLECs believe is correct) then the Joint CLECs urged the Commission to apply the bottoms-up approach to NID/Drop investment proposed by AT&T's Messrs. Pitkin/Turner. There were certain LoopCAT installation costs for which Messrs. Pitkin/Turner did not rely, in total, on JAMS data to restate LoopCAT. These included NIDs and drops. For many of the same reasons discussed above, the Joint CLECs argued that the Commission should find that the Pitkin/Turner estimates of NID/Drop installation costs are reasonable and TELRIC-compliant.

Like Staff witness Mr. Lazare, Messrs. Pitkin/Turner also took issue with the travel time estimates relied upon by LoopCAT in calculating NID/Drop costs. They therefore modified the NID and Drop installation times as necessary to make them TELRIC-compliant. The Joint CLECs noted that all of their modifications were intended to reflect the initial build-out of a network mandated by TELRIC. (AT&T Ex. 2.0, p. 57)

In conclusion, the Joint CLECs recommended that the Commission should either adopt the forward-looking bottoms-up NID/Drop installation costs proposed by Messrs. Pitkin/Turner, or in the alternative, direct SBC to consistently use linear loading factors to calculate installation costs, including the costs of installing NIDs and Drops.

c. Mix of aerial and buried premises termination equipment

The Joint CLECs pointed out that SBC uses an assumed mix of aerial and buried NIDs and drops in developing the premises termination investments. They further noted that SBC provides no justification for the mix it uses in LoopCAT. The Joint CLECs contended that the best way to correct this error in LoopCAT is to restate SBC's premises termination aerial/buried mix to reflect the same mix as aerial/buried distribution cable facilities. The Joint CLECs stated that SBC raises no plausible argument to the contrary. (AT&T Ex. 2.1, pp. 74-75) Accordingly,

the Joint CLECs argued that the Commission should adopt AT&T witnesses Messrs. Pitkin/Turner application of this approach in their restatement of LoopCAT. (*Id.*)

d. Multiple Dwelling Units

The Joint CLECs explained that SBC's LoopCAT studies submitted in December of 2002 did not account for the fact that people live in multiple dwelling units ("MDUs"), thereby overstating premises termination investment by about 80%. (AT&T Ex. 2.0, pp. 95-96) The Joint CLECs stated that SBC's Mr. Smallwood knew of this problem when he originally submitted LoopCAT in December 2002, yet he knowingly submitted a loop study here that he knew overstated SBC's costs. That in itself should cause the Commission to seriously question SBC's credibility, the Joint CLECs point out.

While Mr. Smallwood purported to use U.S. Census data in fixing this problem in rebuttal, the Joint CLECs stated that he did not use U.S. Census data to incorporate MDUs into LoopCAT on a deaveraged basis. The Joint CLECs recommended that the Commission direct SBC to apply the U.S. Census data on a deaveraged basis, thereby more appropriately reflecting the fact that there are more MDUs in urban areas. (AT&T Ex. 2.1, p. 52)

5. FDI costs

The Joint CLECs asserted it is uncontested that SBC's LoopCAT model fails to reflect the fact that not every loop is served via an FDI, thereby overstating costs. (AT&T Ex. 2.0, pp. 90-94) Although, the Joint CLECs noted, SBC's Mr. Smallwood knew of this error when he filed LoopCAT in December 2002, he chose not to fix it. (Tr. 738-739; SBC Ex. 4.1, p. 89; AT&T Ex. 2.0, pp. 90-94; AT&T Ex. 2.1, pp. 76-80)

However, Messrs. Pitkin/Turner reviewed SBC's loop data (from SBC's own loop databases) to determine what percentage of SBC loops does not have distribution segments. (AT&T Ex. 2.0, pp. 90-94) They broke this data apart by zone (as depicted in Figure 6 of their direct testimony at p. 94) and then corrected LoopCAT to remove unnecessary FDIs and reflect the percent occurrence identified in that table.

While SBC's Mr. Smallwood questions the percentage that Pitkin/Turner derived from the LEIS database, the Joint CLECs pointed out that Mr. Smallwood provided no information to rebut it, and he had no opinion on what the actual percentage might be. When faced with the same record, the Indiana Commission adopted AT&T's recommendation. Indiana Order, p. 43. The Joint CLECs urged the Commission to rely on the only available information to determine the frequency of FDIs in the forward-looking network – which comes from the same database (LEIS) that SBC used to calculate its fill factors. (AT&T Ex. 2.1, p. 77)

The Joint CLECs stated that SBC has designed LoopCAT to assume more than two FDI terminations per working loop. (AT&T Ex. 2.0, p. 128). However, each working loop will actually utilize only two FDI terminations, one on the feeder side and one on the distribution side. The Joint CLECs asserted that the additional connections per FDI are directly related to the amount of spare capacity one incorporates into the network and must be consistent. Based on Mr. Starkey's fill factor recommendations, in a separate calculation, Messrs. Pitkin/Turner modified the LoopCAT assumption of FDI terminations per working loop in order to effectuate

that forward-looking fill factor recommendation. (AT&T Ex. 2.0, pp. 128-131) The Joint CLECs argued that SBC witness Mr. White's criticisms of these recommendations are based on his apparent misunderstanding of the manner in which fill factors are accounted for in LoopCAT. (Tr. 529-530; AT&T Ex. 2.1 pp. 76-80 (responding to Mr. White's criticisms)) The Joint CLECs argued that the Commission should therefore direct LoopCAT to be modified to reflect the reality of the fact that there are two FDI connections per working loop, separate and distinct from the manner in which LoopCAT accounts for fill factors. They stated that this particular modification is not a fill factor issue.

In addition, Messrs. Pitkin/Turner made one additional modification to SBC's FDI termination assumptions. The Joint CLECs asserted that SBC assumes that feeder pairs would only be terminated in a central panel, but there is no engineering reason why this must be so. In fact, the Joint CLECs contended, the only efficient approach is to first fill up the central panel of the FDI with feeder pairs, and then utilize terminations on either the right or left panel to terminate additional feeder pairs. (AT&T Ex. 2.0, pp. 130-131) The Joint CLECs requested that the Commission adopt this modification.

6. Distribution Area modeling

The Joint CLECs explained that LoopCAT's use of embedded DAs is not forward-looking and, therefore, not TELRIC-compliant. The Joint CLECs noted that one of the cost benefits of the TELRIC methodology is that SBC can better design its loop DAs with forward-looking (least-cost, most efficient) technology that can serve much wider geographic areas than the dated technology in SBC's embedded network. (AT&T Ex. 2.0, pp. 150-161) As Messrs. Pitkin/Turner explained, larger DAs can take advantage of larger hardware sizes and therefore are more efficient. The Joint CLECs pointed out that SBC's own engineering guidelines acknowledge this very fact. (AT&T Ex. 2.0, pp. 155-156 (citing to SBC's Loop Deployment Guidelines)) By assuming a fixed relationship between customer locations and specific DAs, as they are reflected in SBC's embedded network, the Joint CLECs contended that LoopCAT is inconsistent with TELRIC because it seeks to "lock in" virtually all the SBC embedded network, while TELRIC requires that only the existing wire center locations remain fixed. (AT&T Ex. 2.0, p. 156) The Joint CLECs contended that efficient forward-looking engineering calls for the use of larger distribution areas consistent with the larger FDI and DLC equipment that is now readily available. (*Id.*) The FCC's Wireline Competition Bureau made just that conclusion in the *Virginia Arbitration Order*.¹⁵ The Commission, according to the Joint CLECs, should therefore order that LoopCAT be modified in the manner described in Messrs. Pitkin/Turner's testimony to account for large FDIs, to the extent possible. (AT&T Ex. 2.0, pp. 158-161 (Figure 12 on page 159 summarizes those adjustments))

7. Loop length, cable size and cable gauge modeling

a. Distribution lengths over 18,000 feet

¹⁵*Virginia Arbitration Order*, ¶ 171-172, 237.

Messrs. Pitkin/Turner also modified LoopCAT to eliminate over 100,000 loops with distribution lengths of over 18,000 feet. (AT&T Ex. 2.0, pp. 105-108) According to the Joint CLECs, they did so, for the simple reason that such loops would not provide an acceptable level of POTS service absent load coils, nor could they provide forward-looking DSL services. (AT&T Ex. 2.0, p. 105). Thus, the Joint CLECs claimed that in a forward-looking network, SBC would not place copper distribution loops in its network with lengths over 18,000 feet. Therefore, the Joint CLECs requested that the Commission direct the removal from LoopCAT of all loops with distribution areas over 18,000 feet. *See also* Indiana Order. p. 44 (directing SBC to remove all-copper loops over 18,000 feet from its study).

b. Data used to develop loop lengths

The Joint CLECs believed that SBC's loop study should reflect the full universe of loop (excluding those with over 18,000 feet of distribution). SBC's LoopCAT relies on a sample of 68% of the loops found in its ARES database. AT&T witnesses Messrs. Pitkin/Turner corrected this error to ensure that LoopCAT includes the full universe of SBC's loops. They relied on SBC LEIS data, which, the Joint CLECs pointed out, is the same source SBC relied on for populating LoopCAT in Texas and California and its fill factors in Illinois. (AT&T Ex. 2.0, p. 104)

Messrs. Pitkin/Turner processed the loop data by wire center. The Joint CLECs believed that LoopCAT should be run at the most granular level available to allow for a more disaggregate level of costing for each UNE. (AT&T Ex. 2.0, pp. 114-116) By doing this, Messrs. Pitkin/Turner believe they more accurately developed the deaveraged UNE rate for each element at issue in this proceeding. As proposed by the Joint CLECs, the Commission should direct SBC to modify LoopCAT to include the entire universe of its loops.

c. Distribution cable resistance limits

The Joint CLECs further contended that SBC has incorrectly developed the loop cost in LoopCAT by using inaccurate resistance guidelines. They noted that SBC's engineering guidelines call for the use of a certain level of ohms of resistance in the design of copper loops, but SBC inappropriately uses a different ohm guideline instead. The use of LoopCAT's ohm design criteria, the Joint CLECs noted, results in a 4.8 dB UNE loop, not an 8.0 dB loop, as acknowledged by SBC's own cost witnesses. (See AT&T Ex. 2.0, p. 112-113) As a result, the Joint CLECs argued that SBC's LoopCAT generally overstates the cost for distribution because it does not apply design criteria consistent with its engineering guidelines. AT&T witnesses Messrs. Pitkin and Turner modified LoopCAT to use the ohm guidelines consistent with SBC's engineering guidelines. The Commission should adopt this modification, according to the Joint CLECs.

d. Allocation of copper cable inventory between feeder and distribution plant

e. Copper cable mix

The Joint CLECs further contended that the copper cable investments in LoopCAT are incorrect because they are based on flawed subject matter expert opinion.

The Joint CLECs first pointed out that SBC's allocation inputs are obviously wrong because the allocations of feeder and distribution facilities do not change by either structure type or by density zone, as they should in a properly performed TELRIC analysis. (AT&T Ex. 2.0, pp. 122-123) Because there is no backup material supplied or explanation of the process SBC used to develop its inputs, the Joint CLECs could not pinpoint the source of the error or even understand SBC's logic for such an assumption. However, as AT&T witnesses Messrs. Pitkin/Turner explained, it is clear that aerial cables, for example, should have a different mix of distribution and feeder facilities than underground cable; and underground facilities, for example, should have a different mix between distribution and feeder facilities in urban areas than in rural areas. (AT&T Ex. 2.0, p. 123)

Also, the Joint CLECs pointed out that the mix of aerial, buried, and underground cable changes significantly in different density zones. For example, the Joint CLECs noted that underground cable is much more prevalent in urban areas than in rural areas, while aerial cable is less prevalent in urban areas and more prevalent in rural areas. However, the Joint CLECs claimed that SBC's static inputs do not reflect these differences by density. In addition, distribution cables become larger in higher density zones, according to the Joint CLECs. Thus, the Joint CLECs asserted that the breakpoint between distribution and feeder facilities must be different for each density zone. (AT&T Ex. 2.0, p. 123-124). Finally, the Joint CLECs contended that SBC's simplifying assumption that there would be no copper feeder cables under 300-pair in any situation and no copper distribution cables above 1,500-pair in any situation, is patently unreasonable. (AT&T Ex. 2.0, p. 125)

To correct for this problem in SBC's LoopCAT, AT&T witnesses Messrs. Pitkin and Turner used more appropriate inputs that reflect the mix of distribution and feeder facilities one would expect to see in actual practice. The Joint CLECs urged that these estimates, detailed in Attachment BFP/SET-11, appropriately reflect differences by type of structure (aerial, buried and underground) and by density (rural, suburban and urban).

The Joint CLECs next contended that LoopCAT's calculation of copper cable investment is also flawed because SBC develops its distribution mix based on embedded sheath feet rather than using forward-looking plant mix assumptions. (AT&T Ex. 2.0, 124-125) The Joint CLECs argued that SBC fails to account for the fact that embedded base feeder facilities are more likely to have multiple sheaths than distribution facilities. (*Id.*) SBC also fails to consider that embedded underground cable is more likely to have multiple sheaths along an individual route than will buried facilities, according to the Joint CLECs. The Joint CLECs contended that this is because most underground cable is feeder plant that is customarily augmented over time. (*Id.*)

However, in a forward-looking network, the Joint CLECs argued that a feeder route will not have multiple sheaths when a single sheath can be used. This error leads to an unrealistically high proportion of underground distribution, according to Joint CLECs. Figure 8 of AT&T Ex. 2.0 provides a summary of the LoopCAT distribution cable plant mix.

AT&T witnesses Messrs. Pitkin/Turner explained that if one were going to rely on embedded data to estimate the appropriate forward-looking mix (and generally one should not), it would be much more appropriate to estimate the structure mix based on the amount of route miles instead of sheath miles. Therefore, Messrs. Pitkin/Turner converted SBC's sheath

distances into route distances. The Joint CLECs argued that Figure 9 in AT&T Ex. 2.0 shows that applying even these embedded factors to SBC's embedded sheath distances yields a much more reasonable structure mix than is currently used in LoopCAT, although neither method is fully TELRIC compliant. The Joint CLECs urged the Commission to adopt Pitkin/Turner's corrections to LoopCAT, which use more reasonable assumptions to estimate the amount of copper cable for each specific structure type.

f. Cable sizing

The Joint CLECs contended that LoopCAT did not use any forward-looking assumptions as it relates to cable sizes. They stated that SBC bases all of its LoopCAT cable costs on its embedded base of cables. (AT&T Ex. 2.0, p. 160) Obviously, they argued, if SBC were to deploy its network today, it would not place the same mix of cable as in its embedded network. SBC has not indicated how old those cables are, but it is possible that there are still cables in inventory that were placed in service in 1930. In any case, the Joint CLECs noted that SBC has incorporated periodic reinforcements accomplished through the placement of multiple sheaths. On a cost-per-pair basis, the Joint CLECs pointed out that larger cables are more efficient (less expensive). (AT&T Ex. 2.0, p. 161)

Because, as explained by Messrs. Pitkin/Turner, SBC does not attempt to determine route distances and the amount of cable required on each route, it is simply impossible to modify the LoopCAT studies to properly reflect larger, more efficient cables that are appropriate in a forward-looking cost study. (AT&T Ex. 2.0, p. 161) In an attempt to incorporate some amount of forward-looking logic into the costing process, AT&T shifted the cable sizes up to reflect larger average cable sizes by assuming that 10% of each cable size shifted to the next larger size. (*Id.*) The Joint CLECs contended that the Commission should find this adjustment reasonable, as it attempts to provide some forward-looking adjustment to an otherwise flawed LoopCAT model.

8. Planning Period

The Joint CLECs did not provide testimony or recommendations on this issue.

9. Previous Methodologies

The Joint CLECs refer to Section III.A.1 above, which addresses this topic.

10. Agreed upon issues

a. Controlled Environmental Vaults

The Joint CLECs provided no additional comment on this issue. (See AT&T Ex. 2.0, pp. 161-163)

b. Feeder Stubs

The Joint CLECs provided no additional comment on this issue.

c. Adjustment to remove double-counting of distribution terminal costs

The Joint CLECs do not object to the removal of the double count. However, they urged the Commission to take note of the fact that SBC did not know that distribution terminals were double counted by the use of factors to determine installation costs. The use of linear loading factors is a “black box” for Joint CLECs, but apparently for SBC as well. (AT&T Ex. 2.1, p. 35)

d. Building entrance facilities

The Joint CLECs provided no further comment on this issue. (See AT&T Ex. 2.1, pp. 75-76)

e. Mix of residential and business premises terminations

According to the Joint CLECs, in addition to LoopCAT’s failure to account for MDUs, it is also uncontested that LoopCAT, as submitted by SBC in December 2002, overstated the cost of premised termination by inappropriately assuming an unrealistically high percentage of residential terminations for services that rarely terminate at those locations. (SBC Ex. 4.1, p. 87; Tr. 715-716) The Joint CLECs pointed out that Mr. Smallwood also admitted that he knew about this problem prior to the submission of his direct testimony, yet he failed to fix it, much less bring it to the Commission’s attention when SBC filed its Illinois cost studies. The Joint CLECs believed that SBC’s failure to make these changes before filing LoopCAT should weigh against SBC’s and Mr. Smallwood’s forthrightness and credibility.

f. Non-Chicago Sales Tax

The Joint CLECs questioned why this was designated as an uncontested issue. In its rebuttal testimony, SBC added a sales tax line item to all of its hardwired DLC investments, applying the tax to total installed investment, while it also changed the application of sales tax to the plug-in investments. The Joint CLECs noted that SBC has previously only applied sales tax to the material portion of the investment. (AT&T Ex. 2.1, pp. 57-58) SBC simply claims that the change dealt with the move from the PICS/DCPR data source for the development of 257c installation factors to the General Ledger. (SBC Ex. 4.1, p. 29-30) That is the extent of SBC’s explanation. The Joint CLECs argued that SBC failed to identify with specificity the sales tax related difference between the PICS/DCPR and the general ledger. Until it does so, the Joint CLECs believed this is an open issue, and, more importantly, SBC has not met its burden of proof to substantiate including this sales tax item in its TELRIC costs.

IV. NON-RECURRING COST STUDIES AND RATE DESIGNS.

Following is a summary of Joint CLECs' recommendations concerning SBC's nonrecurring cost studies and charges.

The Joint CLECs recommended that SBC's nonrecurring cost studies and proposed rates be rejected. Instead, the Joint CLECs recommended that the Commission adopt one of three options: (1) adopt in total the comprehensive nonrecurring cost study adjustments and proposed rates of AT&T witness Mr. Turner; (2) adopt in total the comprehensive nonrecurring cost study adjustments and proposed rates of Joint CLEC witnesses Dr. Ankum and Mr. Morrison; or (3) for each input into SBC's nonrecurring cost studies, specify the appropriate tasks, activity times, travel times, probabilities of occurrence, fallout and rate design for each of the nonrecurring cost studies and, give SBC and the Joint CLECs and the opportunity to rerun the cost studies using the specified inputs. Adopting the recommendations of Mr. Turner or Dr. Ankum/Mr. Morrison would be the most administratively efficient and either set of recommendations would result in nonrecurring rates that are forward-looking and better reflect the principles embedded in the FCC's TELRIC methodology and rules than do SBC's proposals.

As a general matter, either or both of AT&T witness Mr. Turner or Joint CLEC witnesses Dr. Ankum and Mr. Morrison consistently recommended that the Commission reaffirm its finding that all nonrecurring cost studies employ a 2% fallout rate on the complete end-to-end connect/disconnect process to reflect forward-looking, primarily automated processes; remove costs from the studies, such as computer processing costs, that are not directly related to the UNE service ordering or service provisioning; and eliminate activities and/or reduce work times for activities where SBC's studies include activities that are unnecessary or identify activity times that are inflated and unsupported; reject SBC's proposal to impose line connection charges that recover connect and disconnect costs in a single, up-front charge and adopt instead a bifurcated rate that recovers the costs at the time that they are incurred; and adjust the inflation and labor rates contained in the nonrecurring cost studies as proposed by AT&T witness Mr. Flappan.

Based on the above recommendations, the Joint CLECs recommended that the Commission adopt in total the proposed adjustments of either AT&T witness Mr. Turner or Joint CLEC witnesses Dr. Ankum and Mr. Morrison. For the purposes of this summary, the following selected nonrecurring rate proposals highlight selected rates that Joint CLECs recommended the Commission adopt:

If it chooses to adopt Mr. Turner's adjustments, the Commission should adopt (1) a UNE-P migration electronic service order charge of \$0.43 and a UNE-P migration disconnect charge of \$0.15; (2) a new UNE-P electronic service order charge of \$0.37 and a new UNE-P electronic disconnect service order charge of \$0.15; (3) a new UNE-P line connection charge for an analog loop of \$6.32 and a disconnect charge for a new UNE-P analog loop of \$3.03; (4) a stand alone line connection charge for an analog loop of \$9.84 and a disconnect charge for a stand alone analog loop of \$5.27; (5) a stand alone analog loop service order charge of \$0.19 and a disconnect charge of \$0.19; (6) service order subsequent charge for port feature add/change request of \$0.22; and (7) port features add/change provisioning charge of \$0.10 per order. Each of these proposed rates can be found in Schedules SET-3 and SET-4 (Revised) to the direct testimony of AT&T witness Mr. Turner, AT&T Ex. 3.0.

If it chooses to adopt Joint CLEC witnesses Dr. Ankum and Mr. Morrison's adjustments, the Commission should adopt (1) a UNE-P migration electronic order charge of \$0.50; (2) a new UNE-P electronic service order charge of \$1.15; (3) a new UNE-P line connection charge for an analog loop of \$10.56, and disconnect charge for new UNE-P analog loop of \$3.23; (4) a stand-alone line connection charge for an analog loop of \$14.08, and disconnect charge for stand-alone analog loop of \$4.31; (5) a stand-alone analog loop service order charge of \$2.38; (6) a service order charge for port feature add/change request of \$0.54; (7) a port features add/change provisioning charge of \$0.17 per order; and (8) a migration of existing special access circuit to EEL charge of \$0.29. Each of these proposed rates can be found in Attachment 3 to the direct testimony of Dr. Ankum and Mr. Morrison. (Joint CLEC Ex. 1.0, Attachment 3)

A. General Issues

1. TELRIC Standards/Principles

The Joint CLECs noted that the Commission must review SBC's proposed cost studies and nonrecurring charges ("NRCs") in light of the FCC's TELRIC principles, as defined in the FCC's *Local Competition Order* and TELRIC rules, and the Commission's own TELRIC orders. (Joint CLEC Ex. 1.0, pp. 27-28)

Review of the Commission's most recent order on NRCs issued in the TELRIC compliance proceeding in Docket 98-0396 on October 16, 2001 ("TELRIC II Order") readily reveals that SBC has not implemented the Commission's directives. Joint CLECs asserted that SBC has calculated costs and proposed charges greatly in excess of those previously adopted by the Commission in TELRIC II, without identifying any concurrent massive changes since the TELRIC II order was issued. (Joint CLEC Ex. 1.0, p. 14)

The Commission's TELRIC II Order mandated as follows:

- (i) NRC studies should "take into consideration the increased flow through that should result from the OSS enhancements being implemented pursuant to Ameritech's merger agreement."
- (ii) NRC studies should assume not manual intervention but rather "the use of primarily automated interfaces."
- (iii) SBC should change "a single assumption, that orders would be placed through a fully automated process."
- (iv) SBC should "provide [...] written reports or other support for its flow through rates and [...] use a single fallout factor for the complete end-to-end connect/disconnect processes; rather than view each process step in isolation."
- (v) NRC studies should not be "based on [SBC's] existing network architecture and processes and incorporate only those technologies and process improvements that [SBC] actually plans to deploy in the next three years. This is the antithesis of a

forward looking cost study [...] because it encompasses actual rather than forward looking technologies and processes.”

- (vi) SBC’s NRC studies should make “adjustment for [SBC] cleaning up and then maintaining its databases to eliminate fallout caused by database contamination.”
- (vii) SBC’s NRC studies should perform “root cause analyses to seek out and resolve problems causing fallout [and] distinguish between fallout resolution costs and the costs associated with planned/designed manual intervention due to fallout.”
- (viii) SBC “should eliminate the computer processing costs it applies per service order. These costs are not a direct cost to a CLEC ordering a UNE.”
- (ix) Work times in SBC’s cost studies should be adequately supported and not be “based on subjective SME interviews.”
- (x) SBC should “provide very specific backup information, including identification and documentation of forward looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, development of documentation, etc.”

Joint CLECs asserted that SBC failed to incorporate these important principles into its current NRC studies. (Joint CLEC Ex. 1.0, pp. 12-13 (citing TELRIC II Order, pp. 39-42))

In addition, Joint CLECs indicated that many of these issues were previously addressed in the Commission’s TELRIC I Order, issued on February 17, 1998, in which the Commission rejected SBC’s predecessor’s (Ameritech’s) proposed service order and line connection nonrecurring charges, as well as the Commission’s TELRIC II Order, in which the Commission again rejected SBC’s nonrecurring cost studies and proposed rates for service ordering and provisioning. Joint CLECs pointed to the TELRIC I order for guidance as to what the Commission has found deficient in the past:

There is no dispute that Ameritech Illinois will incur certain non-recurring charges in order to provision unbundled elements to new entrants, and it is entitled to recover those costs. The FCC Order suggests that the local exchange carrier should be required to ‘explain with specificity why and how specific functions are necessary to provide network elements and how the associated costs were developed.’ FCC Order ¶691. Ameritech has failed to demonstrate that the magnitude of its proposed nonrecurring charges are appropriate. The lack of support for its nonrecurring costs is apparent.

* * *

Ameritech Illinois’ ten-minute service ordering charge is based on its experience in Milwaukee, which inherently includes considerable manual intervention due to the utilization of the ASR interface. It is clear from the record that the studies are not based on the use of fully automated interfaces. . we agree with Staff and

intervenors that the cost study improperly assumes existing labor intensive processes and is inconsistent with the FCC's TELRIC methodology. Accordingly, in this instance we agree that Ameritech Illinois' proposed rates are not sufficiently forward looking.

Joint CLECs recounted that the Commission set an interim service order charge for unbundled loops of \$13.17 and ordered a 50% reduction in the labor charges included in Ameritech's line connection charge, resulting in a line connection charge of \$25.02, "until such time as Ameritech Illinois provides more support for a different rate." Joint CLECs further recounted that in rejecting Ameritech's nonrecurring cost studies and proposed rates, the Commission provided guidance for any future non-recurring cost studies (TELRIC I Order, pp. 88-90):

The study we are suggesting could take the form of a time and motion study. Alternatively, at Ameritech Illinois' option, an approach could be used which relies on estimates of subject matter experts. That approach would start with the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, development of documentation, etc.

In response to the Commission's TELRIC I Order, Joint CLECs observed that Ameritech filed new cost studies for its nonrecurring charges purportedly in compliance with the Commission's directives. Those cost studies and nonrecurring charges were reviewed in Docket No. 98-0396, which investigated among other things the issue of what nonrecurring charges would apply when a customer migrates its local service from Ameritech Illinois to a CLEC. In that docket, Ameritech proposed nonrecurring charges totaling \$11.79 for UNE-Platform migrations, consisting of a nonrecurring charge of \$8.64 for the basic line port and a nonrecurring charge of \$3.14 for a basic loop service order.

On October 16, 2001, the Commission entered its Order in Docket No. 98-0396. That Order established a permanent nonrecurring line connection charge of \$20.21 and a sole nonrecurring charge of \$1.02 for migrating a UNE-Platform customer's local service from SBC to a CLEC. Specifically, the Commission stated (TELRIC II Order, pp. 41-43):

These significant flaws lead to the inevitable conclusion that Ameritech's cost studies fail to comply with our TELRIC Order requiring well-documented, forward looking cost studies based upon primarily automated processes as well as the FCC's TELRIC methodology. Ameritech's failure to comply with our directives results in nonrecurring charges that are severely inflated. For example, under Ameritech's proposed service ordering charges, the nonrecurring charges to migrate a customer from Ameritech to a CLEC via the UNE-Platform is almost \$12.00, while the NRCM calculated a charge of 29 cents, the state of Michigan has imposed a 35 cent charge for the same migration, and MCI WorldCom witness Jenkins proposed a charge of \$1.02.

* * *

We therefore adopt the recommended adjustments of Mr. Jenkins, which are more in keeping with past practice of the Commission in relying upon experts to propose adjustments to utility provided data in arriving at reasonable approximations of costs and just and reasonable rates. The nonrecurring charges listed in the AT&T/MCI WorldCom Joint Reply Brief reflect the adjustments that Mr. Jenkins made to Ameritech's proposed TELRICs plus mark-ups that were added to the adjusted TELRICs to account for shared and common cost loadings. We adopt those adjusted rates in their entirety. We direct Ameritech to replace in its tariffs the MCI WorldCom adjusted rates that correspond to the proposed Ameritech rates that now appear in those tariffs. We also require Ameritech to tariff a single change record work only charge to apply to UNE-Platform migration "as is" orders and to orders for new customers and additional lines served via the UNE-Platform.

The Joint CLECs noted that the adjustments the Commission referred to in the paragraph quoted above provided that a sole nonrecurring charge of \$1.02 would apply to all UNE-Platform migrations. As described in tariff pages appended to that Joint Reply Brief, the \$1.02 charge would apply to the "Conversion of an existing Ameritech Illinois access line to UNE-P with basic analog loop and basic line port 'as is,' *i.e.* conversion to UNE-P with the same features and functions the line had when it was provided by the Company to the end user", and would apply to "Conversion of an existing Ameritech Illinois access line to UNE-P with basic analog loop and basic line port 'as directed,' *i.e.*, with different, additional and/or fewer features and functions than the line had when it was provided by the Company to the end user." The referenced tariff pages also expressly provided that the "Unbundled Local Loop and ULS-ST Port nonrecurring, line/port Connection charges are not applicable" to a UNE-Platform migration.

Joint CLECs noted that in the face of repeated guidance that the Commission provided SBC with respect to nonrecurring cost studies and charges, on December 24, 2002, SBC filed new rates and cost studies with the Commission for, *inter alia*, unbundled loops, shared and common costs and nonrecurring charges applicable to both new UNE combinations (including new UNE-Platform combinations) and for "as is" and "as specified" UNE-Platform migrations. Specifically, for the conversion of an existing SBC access line to UNE-P with loop and line port combinations, both "as is" and "as directed", SBC proposed a UNE-P Service Order Charge for a POTS line of \$11.72 -- nearly identical to the \$11.79 charge this Commission had rejected outright in its TELRIC II Order as severely flawed, not based on forward-looking systems and technologies and highly inflated. SBC also proposed a line connection nonrecurring charge for 2-wire analog loops that is significantly higher than the \$20.21 line connection charge the Commission adopted in its TELRIC II Order.

Joint CLECs observed that it is against the backdrop of the TELRIC I and TELRIC II orders that SBC's proposed rates, testimony, cost studies and documentation must be measured. AT&T sponsored the testimony of Steven Turner and the other Joint CLECs sponsored the testimony of Ankum/Morrison to address issues raised by SBC's nonrecurring cost studies and proposed nonrecurring rates. Mr. Turner and Ankum/Morrison reviewed SBC's nonrecurring cost studies and made adjustments to those studies and to SBC's methodologies based on the deficiencies that they found. After describing the adjustments that were required to make SBC's

nonrecurring cost studies more forward-looking, Mr. Turner and Ankum/Morrison made specific recommendations on how each nonrecurring charge proposed by SBC should be adjusted, and provided recalculated TELRICs for each such charge. Thus, the Joint CLECs pointed out that the record in this proceeding provides the Commission with various alternatives from which to choose in determining what constitutes appropriate nonrecurring charges.

In their Reply Brief, Joint CLECs agreed with the Staff's assessment that many of the nonrecurring rates proposed by SBC are overstated. Many are also inadequately supported. Joint CLECs further agreed with Staff's observation that the fundamental premise of SBC's entire body of nonrecurring support is flawed because, contrary to the clear directive of the FCC and this Commission's TELRIC I and TELRIC II Orders, SBC has failed to incorporate forward-looking and efficient technologies that are available to it. Rather, as Staff's Initial Brief aptly observed, the SBC subject matter experts ("SMEs") providing input into the nonrecurring cost studies were directed to ignore any technologies SBC does not currently employ or that SBC has not approved for deployment in its network. Joint CLECs further agreed with Staff that while under certain circumstances the Commission should afford considerable weight to the inputs supplied by SMEs, this proceeding does not present such circumstances because SBC did not give these subject matter experts a free hand in supplying inputs and instead confined them to describing existing or anticipated SBC processes and technology. Thus, according to Joint CLECs, SBC does not even dispute that the entirety of its nonrecurring charge support is based almost exclusively on SBC's actual, embedded network and practices. For these reasons, Joint CLECs noted, SBC's resulting nonrecurring charges are grossly overstated and fail to comply with TELRIC principles.

Joint CLECs suggested that as a test for SBC's proposed non-recurring charges, the Commission should look to nonrecurring rates that SBC charges retail residential and business customers to establish basic service. Specifically, Joint CLECs note that the line connection and service ordering charges for wholesale and retail service are virtually identical in description and purpose. SBC's tariff establishes a rate of \$20.50 and \$19.10 for line connection and service ordering charges, respectively, for a residential customer. SBC's tariff establishes a rate of \$17.50 and \$34.85 for line connection and service ordering charges, respectively, for a business customer. Joint CLECs point out that these compare to SBC's proposed nonrecurring charges to CLECs of \$106.86 for line connection for a standalone analog loop and \$32.91 for a loop service order (SBC Ex. 3.1, Schedule MDS-R3), which would apply to CLECs serving retail customers using their own switches and unbundled loops leased from SBC, and \$57.33 and \$11.27 for line connection and service ordering for new UNE-P (SBC Ex. 3.1, Schedule MDS-R4), which would apply to CLECs serving retail customers by leasing from SBC all of the same network elements that SBC uses to provide service to its retail customers.

There is no reason, contended Joint CLECs, that SBC's nonrecurring charges should be higher for CLECs than for residential and business customers. In fact, SBC witness Ms. Gomez-McKeon conceded on cross examination that the activities related to line connection are substantially the same for UNEs as for retail. And the same is true for the service ordering activities. Joint CLECs noted that the language describing the service ordering activity in SBC's wholesale tariff is virtually identical to the language in its retail service in describing the service ordering activities. Thus, there is no reason why service order rates should be so much higher for SBC's wholesale customers than they are for SBC's retail customers.

Accordingly, argued the Joint CLECs, as a test of reasonableness for SBC proposed line connection charges and service ordering charges, the Commission should compare these proposed wholesale charges to SBC's charges to its retail customers for comparable service and activities. SBC's basic retail business line connection charge is \$17.50 and its basic retail residential service ordering charge is \$19.10. Joint CLECs asserted that SBC's proposed charges simply do not pass this test of comparison.

2. Cost Causation and Characterization of Costs

Joint CLECs posited that perhaps the most important issue with respect to nonrecurring charges concerns the question of when costs are appropriately recovered through nonrecurring charges and when they are supposed to be recovered through recurring charges. Claiming that SBC uses the incorrect criterion, Ankum/Morrison instead relied on directives and guidance found in the FCC's Wireline Competition Bureau's findings on non-recurring cost model issues in the *Virginia Arbitration Order*. The FCC there found that in order to minimize nonrecurring charges -- and the extent to which they are able to constitute a barrier to entry -- costs must be appropriately classified.

Joint CLECs noted that the issue emerges because a large portion, if not most, of SBC's costs are incurred on a non-recurring basis. This is true for most of the investments associated with outside plant facilities, interoffice transport facilities, switch facilities, and for all buildings and grounds, and much of the power equipment in the central offices. However, just because almost all of these facilities represent large, one time investment costs incurred on a non-recurring basis (though clearly all of them have recurring costs, such as maintenance, taxes, etc., associated with them). (Joint CLEC Ex. 1.1, p. 4), it in no way means from an economic perspective that these costs should be recovered through non-recurring charges. In this proceeding, the Joint CLECs argued SBC has misclassified many of its costs as non-recurring costs that should be classified as recurring costs. (Joint CLEC Ex. 1.1, p. 4-5)

The appropriate criterion, contended Joint CLECs, is as follows: a cost should be recovered through non-recurring charges when the activities in question benefit only the CLEC placing the request for service; however, if other entities, such as other CLECs and the ILEC itself, benefit either immediately or over time, then the costs of these activities should be recovered through recurring charges. (Joint CLEC Ex. 1.1, p. 5) This issue is also discussed in the *Virginia Arbitration Order*:

The costs at issue are labor costs associated with the activities necessary to provide UNEs to a competitive LEC. In many cases, these activities will produce benefits for any carrier using the facility in the future, and not just the initial competitive LEC for which the work is performed (*e.g.*, cross-connects made to complete a connection are likely to remain in place even if the end-user customer no longer takes service from the competitive LEC).

* * *

Costs of non-recurring activities that benefit *only* the competitive LEC, or are not reflected in Verizon's [the ILEC's] ACF calculation (*e.g.*, certain types of loop

conditioning), should be recovered through NRCs. (*Virginia Arbitration Order* ¶¶ 156 and 584 (Emphasis added))

Joint CLECs further noted that this Commission has agreed that this is the proper approach in its initial comments to the FCC TELRIC NPRM filed on December 16, 2003, stating that “[o]nly NRCs directly attributable to activities benefiting the competitive LEC should be recovered from the CLEC.” (ICC TELRIC NPRM Comments, pp. 80-81)

Joint CLECs asserted that many of the problems with SBC’s nonrecurring cost studies can be traced to SBC’s failure to properly categorize recurring and non-recurring costs. For example, SBC’s high fall-out rates -- and the associated costs -- are mostly caused by errors in SBC’s legacy databases. The clean up of these databases, however, will benefit all CLECs that place orders, as well as SBC itself, and thus the costs should not be in non-recurring charges. (Joint CLEC Ex. 1.1, p. 6) Another example concerns computer processing costs, which are clearly not incurred on a per service order basis. Rather, computer processing costs are associated with facilities that will continue to benefit SBC, CLECs and other customers throughout the computers’ lives and, thus, should be recovered through recurring charges and not through nonrecurring charges, as proposed by SBC. (Joint CLEC Ex. 1.1, p. 20)

Joint CLECs noted that the co-mingling of recurring and non-recurring costs is often also found in SBC’s provisioning cost studies. As the FCC noted in the *Virginia Arbitration Order*, most of the costs of provisioning consists of the labor costs associated with activities (traveling, establishing cross-connects, and testing) at either the central office or outside plant location. When establishing cross-connects for permanent activation of facilities, the CLEC that orders the facility to be activated as well as other CLECs and the ILEC itself will benefit from this activity. Thus, argued the Joint CLECs, the costs of this activity are more properly characterized as recurring costs. Specifically, any testing and repairs on facilities (distribution links, feeder facilities, Central Office facilities, etc.) benefit not just the CLEC that orders facilities but also subsequent CLECs and the ILEC itself. As such, the costs of these activities are recurring costs and *not* non-recurring costs according to CLECs. Clearer directives on this issue would resolve many of the cost disputes in this proceeding. (Joint CLEC Ex. 1.1, p. 7)

Lastly, as the FCC has noted on many occasions, recouping costs through non-recurring charges tends to create barriers to entry and precludes competition -- by contrast, recognizing that many of the costs are in fact more appropriately recouped through recurring charges has the added benefit that it lowers such potential barriers to entry. (Joint CLEC Ex. 1.1, p. 8)

Ankum/Morrison provided additional reasons for ensuring that costs are appropriately identified as recurring costs and not inappropriately identified as nonrecurring costs. (Joint CLEC Ex. 1.0, pp. 8-9):

1. It would provide SBC with no incentive to further automate or mechanize its systems as it would be compensated for its costs whether or not those costs are efficiently incurred.
2. It would cause over-recovery since many of these costs are also recovered through recurring charges.

3. It would necessitate complicated corrections to the recurring cost studies to sort out which costs are recovered through the non-recurring cost studies. If costs are not appropriately eliminated from the recurring cost studies, then over-recovery occurs. Further, to the extent that certain maintenance related expenses may be incorporated into the non-recurring charges, retail rates may have to be adjusted as well since presumably retail rates are set at levels that at least in part reflect the cost of maintaining the public switched network.
4. It would cause unintended cross-subsidies as the non-recurring charges, paid by one single CLEC as a result of ordering one or more UNEs, would recover costs for activities from which other carriers, including the ILEC itself, will continue to benefit. To avoid these types of inappropriate cross-subsidies, complicated refund mechanisms would have to be put in place.
5. It would cause non-recurring charges to be significantly higher than they should be and preclude competition where competition would otherwise be possible.
6. It would increase barriers to entry

Further, contended Joint CLECs, the FCC recognized in the *Triennial Review Order* that there is a lethal relationship between nonrecurring charges, churn rates and the ILEC's winback programs. The higher the churn rates, the more difficult it is for the CLEC to fully recoup its customer acquisition costs and non-recurring charges, such as those proposed by SBC in the current proceeding. (See *Triennial Review Order*, ¶¶470 and 471)

Providing numeric examples, Ankum and Morrison explained that in the face of high churn rates, the non-recurring charges are possibly more important considerations than the recurring charges, and may pose an insurmountable barrier to entry. (Joint CLEC Ex. 1.1, pp. 9-10; *Triennial Review Order*, ¶475) They explained that since winback programs are specifically targeted at the CLEC customers that have just left the ILEC, the winback programs in effect serve to *increase* the CLEC's churn rates. Indeed, it is through the combination of the non-recurring charges – if they are high -- and the winback programs that the ILEC will be able to render customers uneconomical for CLECs. Given that the winback programs are generally unregulated, they can be used as a “punitive” measure to signal to CLECs how much competition the ILEC will tolerate in a serving area.

Joint CLECs contended that the best protection against this potentially lethal dynamic is to order SBC to recover costs associated with investments or activities from which multiple entities benefit (such as computer processing costs) through recurring charges. They argued that if SBC's costs are correctly classified, many of the costs now included in SBC's non-recurring charges will be more appropriately recovered through recurring charges. (Joint CLEC Ex. 1.1, pp. 11)

Joint CLECs disagreed with SBC's criticisms of their position on the costing principles that should guide the appropriate classification of costs between recurring and nonrecurring costs and in particular SBC's assertion that the FCC's rules do not allocate costs on the basis of who

might benefit over time. Joint CLECs argued that SBC is wrong. Joint CLECs contended that SBC completely ignores the discussion on the issue contained in the FCC's *Virginia Arbitration Order*, which provides a straightforward application of the FCC's TELRIC principles and is consistent with common sense and fairness. For example, Joint CLECs noted that if SBC places a cross-connect out in the field to activate a basic UNE loop for a CLEC, and that cross-connect has an economic life of, say twenty years, but the CLEC is expected to use the loop for only two of those twenty years, then Joint CLECs ask how can it be fair to have the CLEC pay for 100% of the cost of placing that cross-connect, as proposed in SBC's studies?

Joint CLECs stated that if the Commission recognizes that the cost of placing these cross-connects (and the attendant activities, such as testing and travel) are more appropriately recovered through recurring charges than through non-recurring charges, then many of the contentious issues about SME-based activity time estimates (such as travel times, test times, and cross-connect times) automatically disappear, as the *Virginia Arbitration Order* accomplished by finding reasonable an assumption of 100 percent DIP and DOP. (Joint CLEC Ex. 1.1, p. 35) Hence, the FCC's finding dispenses with the entire cumbersome debate by recognizing that these costs should be classified as recurring costs. For these reasons, Joint CLECs contended that SBC's arguments are without merit and that the Commission should reject (1) SBC's recommendations for how to assign costs, and (2) SBC's approach to nonrecurring charges.

3. Treatment of technology

Joint CLECs reiterated that the Commission's TELRIC I and TELRIC II orders admonished SBC to perform NRC studies that assume not manual intervention but rather "the use of primarily automated interfaces." SBC has ignored that instruction and provided yet again NRC studies laced with labor intensive activities and inflated probability of occurrence and activity times. As discussed in further detail below with respect to fall out rates and service ordering technologies, SBC's studies do not account for forward-looking technology that is available today and that would eliminate or significantly reduce the inflated labor times reflected in SBC's NRC cost studies.

Joint CLECs took issue with SBC's inference that CLECs somehow propose the use of technologies that are not "currently available," labeling that inference grossly misleading. Joint CLECs contended that the problem, of course, is that SBC's cost studies fail to assume implementation of technologies and best practices that are "currently available."

Joint CLECs found SBC's position that its nonrecurring costs are based primarily on the telecommunications technologies that SBC Illinois is currently deploying startling in light of the Commission's prior determinations in TELRIC I and TELRIC II proceedings.

First, asserted Joint CLECs, the Commission generally does not accept the embedded technology deployed in the ILEC's network as presumptively forward-looking: there is no reason to make an exception for nonrecurring charges. Moreover, under cross-examination it was demonstrated that SBC's cost studies were in fact backward looking and based on stale data that do not even reflect the current state of SBC's OSS. (Tr. 1217)

Second, the Joint CLECs did not recommend that cost studies be based on “pie in the sky” technologies but rather that they reflect the flow through rates that are possible *given the current state of technology* – whether or not SBC uses these technologies. This is a well accepted approach to costing loop, switching and transport facilities, accepted and practiced by SBC itself (though certain disagreements on how to implement this approach do generally emerge), and Joint CLECs asserted that there is no reason to deviate from that approach where it concerns non-recurring cost studies.

Joint CLECs further noted that FCC’s *Virginia Arbitration Order*, this Commission and many other state commissions, have adopted technology assumptions -- rather than sanctioning embedded technologies -- that permit flow through rates of 98 percent or higher (2 percent fall out). (Joint CLEC Ex 1.0 at 73, Joint CLEC Ex. 1.1, p. 19) In fact, the FCC’s *Virginia Arbitration Order* specifically assumed a forward-looking OSS that is more advanced than the one actually deployed by the ILEC because it provided incentives to Verizon to adopt automated systems for the activities necessary to turn up service to CLECs. (*Virginia Arbitration Order*, ¶546) As Joint CLECs observed, based in part on this assumption, the FCC adopted a fall-out rate of 2 percent. (Joint CLEC Ex. 1.1, p. 19)

Contrary to SBC’s misstatements, all of AT&T witness Mr. Turner’s recommendations were based on currently available technology. In fact, many of his recommendations were based on the processes and practices he has observed SBC using in its other states, or other ILECs using. Others of Mr. Turner’s recommendations simply reduced the times and probabilities of occurrences of SBC’s existing processes. Still others were based on SBC’s own testimony (*i.e.*, use of a direct telephone call rather than a multi-step process involving the maneuvering of a menu, a live service representative and then a warm transfer to another representative for ACD activity; reducing activity times in those instances where SBC assumes different times for the same tasks in its cost studies).

SBC also misstates AT&T witness Mr. Turner’s testimony regarding SBC’s general failure to integrate its OSS and, in particular, its LASR and EXACT systems. SBC erroneously contends that Mr. Turner failed to identify any software or hardware to integrate those systems. As Mr. Turner testified, documentation of the same note in multiple SBC systems is not an efficient, forward looking process and, because it is fairly common to electronically interface systems, many vendors, including Arthur Andersen, could accomplish the electronic interface of LASR and EXACT. (Tr. 1542-1544)

4. Use of Subject Matter Experts

Joint CLECs looked to the Commission’s response to the FCC’s TELRIC NPRM on issues related to nonrecurring charges in support of their position. Specifically, Joint CLECs noted that the Commission expressed “the opinion that current practices may not be the best indicator of the most efficient forward-looking practices. The ICC believes that this is most likely a function of the relative newness of local exchange competition. As the ILECs’ practices evolve, they should become more efficient. Accordingly, the ICC believes that the Commission should not presume that current practices are efficient.” (ICC TELRIC NPRM Comments, pp. 80-81) Joint CLECs further pointed to the Commission’s response to the FCC’s TELRIC NPRM wherein the Commission explained that while it has in the past allowed ILECs to rely on SMEs,

it has done so only with the expectation that “such an approach should be supported by the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, and the development of documentation.” (*Id.*)

According to Joint CLECs, SBC has chosen to use SMEs to estimate NRCs, but has failed to support those estimates “by the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, and the development of documentation.” SBC’s NRC cost studies and SME estimates are poorly supported and rely almost exclusively on the subjective estimates of SMEs whose judgment may be seriously tainted by personal considerations regarding job security and other factors driving overestimation of work times. Moreover, Ankum/Morrison noted that the shortcomings of relying on SME estimates were delineated in the findings of other commissions as well as the *Virginia Arbitration Order*. (Joint CLEC Ex. 1.1, pp. 3-9)

Further, Joint CLECs contended, the instructions provided to the SBC SMEs failed to properly instruct those SMEs on: (1) TELRIC (Joint CLEC Ex. 1.0, pp. 43-44); the distinction between activities that benefit only the CLEC that places the service order (which represent non-recurring costs) and activities that benefit other CLECs and SBC itself (which represent recurring costs); (3) flow-through rates under TELRIC; and (4) adjustments to correct for error-riddled legacy systems and other non-TELRIC-compliant conditions. (Joint CLEC Ex. 1.0, pp. 45-46)

Indeed, Joint CLECs asserted, SBC’s NRC studies were criticized and rejected by the Commission in the TELRIC II Order in large part because of the subjective nature of the SME estimates:

We also find the work times in Ameritech’s cost studies to be inadequately supported. Ameritech admits that it only conducted time and motion studies for two of its nine work groups; information regarding the remaining seven work groups was based on subjective SME interviews. While it is true that the TELRIC Order ordained the use of SME interviews, Ameritech’s own data request responses indicated that its cost studies are based on “limited observations” and that the volume of service orders by type that flowed through were not tracked and not available and, therefore, not subject to quantitative analysis. Moreover, Ameritech conceded that its forward looking analysis focus was only on two of the nine work groups (Service Center and NECC) because those were the only areas identified with planned enhancements over the next three years, making the purpose of the SME interviews unclear and their utility to the cost studies questionable. Further, and perhaps more troubling, the TELRIC order specifically required Ameritech to assume primarily automated ordering. Ameritech’s study, instead, apparently assumed that the brunt of its operation would be status quo, by only assuming that two of the work groups would be enhanced, while the vast majority would remain static. (TELRIC II Order, pp. 29-30)

* * *

These significant flaws lead to the inevitable conclusion that Ameritech's cost studies fail to comply with our TELRIC Order requiring well-documented, forward looking cost studies based upon primarily automated processes as well as the FCC's TELRIC methodology. Ameritech's failure to comply with our directives results in nonrecurring charges that are severely inflated." (TELRIC II Order, p. 41)

Joint CLECs pointed out that Ankum/Morrison's testimony echoed the Commission's decision in TELRIC II that using SMEs to obtain task times and occurrence probabilities is inherently unreliable. Further, since the probability factors reflect the extent to which the tasks even need to be performed at all (and the extent to which SBC needs to recover those costs), questions regarding the validity of those factors may have a significant impact on the resulting NRCs. (Joint CLEC Ex. 1.0, p. 51)

Ankum/Morrison recommended that SBC could provide validation for its estimates by performing time and motion studies for the tasks at issue. Alternatively, Ankum/Morrison recommended that SBC could engage an independent third party to audit and verify the results obtained from its models. (Joint CLEC Ex. 1.0, p. 52-53)

Despite repeated admonitions from the Commission concerning the shortcomings in its NRC studies, Joint CLECs contended that SBC has stubbornly retained its aversion to well-documented, forward-looking cost studies based upon primarily automated processes. For these reasons, Joint CLECs urged the Commission should not compromise its correct and longstanding position on the standard by which proposed NRCs should be judged.

Joint CLECs claimed that SBC misrepresents Dr. Ankum's and Mr. Morrison's expertise, noting that Mr. Morrison has extensive experience with all the activities (cross-connect, testing, travel, dispatch, etc.) that are pertinent to the nonrecurring cost studies. In fact, Mr. Morrison has over 30 years experience with precisely the types of activities that form the foundation of the vast majority of SBC's alleged nonrecurring costs. Dr. Ankum's expertise as an economist and as cost analyst complements Mr. Morrison's technical expertise.

Joint CLECs took issue with SBC's failure to provide any support whatsoever for many of its SME estimates. (Joint CLEC Ex. 1.1 at 27) For example, to assume that technicians can simply "divine" a representative estimate is silly; the problem is complex and deserving of an appropriate statistical and quantitative analysis. Yet, SBC provided no support for the vast majority of its travel times. (SBC Ex. 5.1, pp. 37-38)

Joint CLECs found fault with SBC's claim that its technicians are SMEs and therefore qualified to provide labor time estimates, such as those for travel. The question of representative time estimates is, for the most part, a statistical one, Joint CLECs observed, and one would have to be a statistician to estimate average travel times to FDIs and SAIs – not an SBC technician. Joint CLECs maintained that the same objections apply to SBC's SME estimates for other activities.

According to Joint CLECs, SBC cavalierly dismisses other objections as well. For example, SBC dismisses the Joint CLECs' claim that SBC's SMEs are potentially biased. However, the Joint CLECs' concerns are legitimate and are shared by other commissions (Joint CLEC Ex.1.0, p. 41) and the FCC in its *Virginia Arbitration Order*. (Joint CLEC Ex. 1.1, p. 28) In fact, almost all of the concerns expressed by the Joint CLECs but dismissed by SBC were shared by the FCC's *Virginia Arbitration Order*. (*Id.*)

Joint CLECs further noted that the AT&T and Joint CLEC witnesses had documented their analyses and their estimates can be probed for validity, whereas SBC has provided no support (documentary or otherwise) for its SME estimates. And, Joint CLECs reiterated, it is SBC – and not the CLECs – that has the burden of proof in these proceedings.

Remarkably, SBC attempts to discredit the credentials of AT&T witness Mr. Turner because he happens to be a consultant and, therefore, paid for his time. As AT&T pointed out, certainly neither SBC's consultants nor employees work for free; in fact, CLECs pay for a portion of those costs -- including Mr. Silver's salary -- via SBC's shared and common cost factor. Quite to the contrary, Joint CLECs asserted that Mr. Turner is highly qualified, as SBC well knows from its experience with him in this region and in many of its other states. Mr. Turner is an engineer. Mr. Turner has managed large teams of central office technicians and clerical workforce responsible for working maintenance tasks. (AT&T Ex. 3.1, p. 24) Mr. Turner has performed many of the relevant engineering and provisioning tasks himself. Mr. Turner was a part of the team that formulated AT&T/MCI's nonrecurring cost model. Mr. Turner owned a small CLEC and has hands on experience – from the CLEC side – with SBC's day-to-day processes. (AT&T Ex. 3.1, p. 27) Mr. Turner has regulatory experience in 30 jurisdictions, including the FCC, and has extensively reviewed cost studies in all of them. He is intimately familiar with the recurring and nonrecurring cost studies of several ILECs and RBOCs, and is certainly familiar with the cost studies of SBC in Arkansas, California, Indiana, Michigan, Ohio, Wisconsin, Texas, Missouri and Oklahoma. (AT&T Ex. 3.0, p. 2) In short, Mr. Turner has extensive experience working in service order environments, more than seven years experience preparing and evaluating TELRIC studies and is well-qualified to provide expert testimony on SBC's non-recurring cost studies and charges. (AT&T Ex. 3.1, p. 29)

Ironically, argued Joint CLECs it is SBC that wrongly contends that it presented estimates from numerous experts “who perform the relevant tasks daily, and have performed the relevant tasks on thousands of occasions.” (SBC Initial Br., p. 161) Certainly Dr. Currie has not performed these tasks and, as Staff's Initial Brief aptly summarizes, neither has Ms. Gomez-McKeon, despite the fact that she is the alleged “provisioning” expert. (Staff Initial Br., pp. 139-147) In fact, at most, she observed them and, even then, did not observe them all. (Tr. 1459-1460)

B. Service Order Nonrecurring Cost Studies

Ankum/Morrison reviewed and analyzed SBC's service order nonrecurring cost studies and provided revised cost studies and proposed rates for service order activities. (Joint CLEC Ex. 1.0, Attach. 3-P). Dr. Ankum provided the economic analysis and TELRIC guidelines for NRC cost studies. Mr. Morrison, having performed and supervised the activities modeled in the NRC cost studies as an ILEC employee for over thirty years, and having had the benefit of

reviewing various time-and-motion studies for these activities throughout his career, provided inputs and technical expertise for the review and analysis of SBC's NRC cost studies. (Joint CLEC Ex. 1.0, pp. 1-7) They demonstrated that SBC failed to present TELRIC studies and noted that SBC has simply modeled the costs associated with its existing operational support systems ("OSS") with high fall-out rates, errors in legacy systems, and intensive manual intervention that drive up the costs of service ordering and service provisioning. (Joint CLEC Ex. 1.0, pp. 7-19, 53-75)

Joint CLECs disagreed with SBC's contention that Joint CLECs' recommendations regarding "Support Activities" are not based on currently available OSS. That is not true. As Joint CLECs pointed out in our Initial Brief, several of the Support Activities (*i.e.*, 3 E Error Activity, ESOI Activity) are necessary due to the fact that there are discrepancies and inefficiencies in SBC's OSS that do not allow orders to flow through those systems. It is undisputed that SBC's OSS are capable of flowing the orders through since many of them do. Fallout is due to database "discrepancy" (as Mr. Christensen calls it, Tr. 1224-1225).

Joint CLECs further disagreed with SBC's claim that in the current proceeding it has more accurately identified various tasks than in the previous proceedings, and therefore, its costs are higher. Joint CLECs asserted that this argument is nonsense since the fact that SBC now "also examines the work required to process orders for existing UNE-P that CLECs submit manually" in no way explains why the costs for *electronic* submissions have gone up under the new studies.

SBC also claims, and Joint CLECs disagreed, that the Commission's previous findings for electronically submitted existing UNE-P orders are no longer accurate: "[w]ith respect to CLEC orders for existing UNE-P, the NRC approved in Docket No. 98-0396 was based on the assumption that processing an electronically submitted order for existing UNE-P involves nothing more than doing "record work only." See *id.* at 18-19. However, the record in this proceeding demonstrates that that assumption is wrong, for at least two reasons." (*Id.*) But, contrary to what SBC claims, Joint CLECs contended that the record does not support this conclusion.

For example, Joint CLECs noted that SBC asserts that "to process a UNE-P request ... SBC Illinois' network systems must be updated, and thus the CLEC is required to provide significantly more information. This additional information and extra steps required to update the network systems entail additional work by the LSC, and thus the "record work only" NRC does not reflect the costs of processing an order for existing UNE-P." (SBC Initial Br., p. 166) However, Joint CLECs pointed out that SBC's Initial Brief does not mention any activity other than those related to updates of electronic databases. Thus, SBC's claim amounts to no more than an argument about what flow through can be achieved.

Joint CLECs contended that for the six activities identified by SBC – Reject Activity; Automatic Call Distribution ("ACD") calls; Errored Service Order Image ("ESOI"); Pending Past Due ("PPD"); 3E Errors; and Supplemented Orders – SBC's witness Mr. Christensen when probed on the reasons for why errors might occur in the service ordering processes that cause fall out admitted that the cause is often found in SBC's own databases. (Tr. 1223-1226; Tr. 1281-1283) Remarkably, SBC's studies take no account of any in which SBC is the cause of fall out.

Joint CLECs continued that the Commission has already found that the cost associated with fall-out due to errors in SBC's legacy databases should not be recovered from CLECs, when it found that SBC's nonrecurring cost studies should make ". . . adjustment for [SBC] cleaning up and then maintaining its databases to eliminate fallout caused by database contamination." (Joint CLEC Ex. 1.0, p. 13 (citing the TELRIC II Order, pp. 39-42)) This particular finding is one with which the FCC concurs. (*Virginia Arbitration Order*, ¶592) Joint CLECs agreed, arguing that any costs caused by fall out related to errors in SBC's own databases should not be recovered from CLECs through non-recurring charges.

In addition, Joint CLECs disagreed with SBC's claims that the validation and verification activities are common-sense business practices to make sure that orders are processed as accurately as possible because, if the OSS is designed appropriately, the service orders containing errors should be rejected by the OSS and returned to the CLECs for correction, rather than pushing those orders through to downstream systems with an assurance of fallout. (Joint CLEC Ex. 1.0, pp. 80-83) Further, Joint CLECs contended, if this is done appropriately, then by definition all other errors are then due to errors (mismatches) in SBC's own databases. For all of these reasons, Joint CLECs urged the Commission to reject SBC's criticisms of the Joint CLECs' positions on identification of activities.

1. Identification of tasks

As an initial matter, Ankum/Morrison noted, virtually all of SBC's service ordering and service provisioning studies start with the flow of activities with some form of a review process as to the accuracy of the service order. (Joint CLEC Ex. 1.0, p. 80) While it may be true that SBC's systems accept service orders that are inconsistent with its own legacy systems, these inconsistencies are due to SBC's own systems and CLECs should not have to pay for cleaning up these errors. (Joint CLEC Ex. 1.1, pp. 6-7) Joint CLECs argued that the validation and verification activities identified in SBC's studies are excessive and result in an inefficient OSS, and therefore should be removed from SBC's service ordering and provisioning NRC studies. (Joint CLEC Ex. 1.0, pp. 80-89)

Further, Ankum/Morrison noted that SBC's systems fail to allow CLECs to submit error-free Local Service Requests ("LSRs") that commercial systems, such as orbitz.com and ATM machines, are capable of achieving. Erroneous LSRs cause many downstream fall-outs and costs. Ankum/Morrison's discussion of SBC's problematic incentive structure and the failure of its Information Technology ("IT") department to make appropriate investments, which are discussed in the section of this brief regarding fall-out rates, are also applicable here. Joint CLECs reasoned that error free service requests, as other ordering systems, such as Orbitz.com, allow today, would reduce the fall out that results in the need for costly manual intervention by SBC employees, which ultimately drives up NRCs. (Joint CLEC Ex. 1.0, pp. 75-76)

Similarly, Ankum/Morrison objected to endless system log-in times by SBC employees that may take 3 to 5 minutes. SBC's terminals and computers should be expected to have *high-speed* connections that are up and running and logged-in and would not occur *per service order*, but, at worst, once per day. Manual paper handling and review is time-consuming and argued Joint CLECs, should be replaced with an efficient OSS in a forward-looking, most-efficient,

least-cost environment. Thus, the log-in times should be set at zero. (Joint CLEC Ex. 1.0, pp. 144-48).

Additionally, Joint CLECs asserted that SBC's administrative close-out times are too long and should be accomplished by a few keystrokes. Consequently, Ankum/Morrison recommended that all paperwork-based close-out times should be disallowed, *i.e.*, set at zero. (Joint CLEC Ex. 1.0, pp. 145-48)

Additional discussion of SBC's Support Activities is presented in Section IV.B.5 below on fallout rates due to the inextricable relationship between SBC's Support Activities and SBC's fallout percentages.

2. Activity times

As discussed above, SBC's NRC studies include activities that are not required or should not be required if SBC's studies assumed primarily automated processes and efficient, forward-looking technology. If the need for activities is eliminated, debates about activity times become superfluous.

AT&T witness Steven Turner recommended several specific additional adjustments necessary to bring SBC's service order cost studies into compliance with TELRIC standards. As far as SBC's Support Activities (*i.e.*, Reject Activity, Supplemental Order Activity, ACD Coverage Activity), Mr. Turner recommended several necessary changes. Mr. Turner reduced the Reject Activity process time in SBC's EEL Service Order Cost Study to make it consistent with the time SBC uses in its Unbundled Loops Service Order Cost Study for the same process. (AT&T Ex. 3.0, p. 105). For the Reject Activity process, Mr. Turner also reduced the time to select a Reject reason and make notes for the service order to one minute based on his experience with performing similar functions (AT&T Ex. 3.0, pp. 105-106, 117) and to eliminate the inefficiencies in SBC's process, which requires the service representative to type the same notes regarding the Reject reason three times. (Tr. 1220-1221)

AT&T witness Mr. Turner recommended eliminating the time SBC assumes to check the EXACT SUPP page for a change request in the Supplemental Order Activity process based on his experience with performing similar functions. (AT&T Ex. 3.0, pp. 106, 114) As SBC witness Mr. Christensen corroborated, if the reject reason appears in the notes section of the page, the nature of the change is readily apparent to the service representative and no time is required. If not, the service representative must do a mere "stare and compare" exercise, often of a single page. (Tr. 1226-1227) Mr. Turner recommended eliminating any time for this activity in all of SBC's cost studies. See AT&T Ex. 3.0, Revised Attachment SET-2P)

For the ACD Coverage Activity process in which the CLEC calls the Local Service Center, or SBC, concerning an order, AT&T witness Mr. Turner recommended eliminating the extremely length, time SBC's cost studies assume it takes to actually answer the phone. As Mr. Turner testified, the time it takes to receive a call is the time it takes to pick up a handset or activate a headset (*i.e.*, pushing a button). (AT&T Ex. 3.0, pp. 106-107, 111, 114-115, 117-118) In fact, SBC witness Mr. Christensen acknowledged on cross examination that SBC's time estimate includes the time for the CLEC to call a number, maneuver through a menu of options,

select an option, speak with a live service representative and have that service representative transfer the call to the service representative that actually took the order for the EEL. (Tr. 1223) Mr. Christensen, acknowledging the inefficiencies of this process, suggested instead that the CLEC can avoid this maze by simply calling the telephone number on the order form and reaching a live EEL service representative directly. (Tr. 1233-1234) Nevertheless, SBC assumed the use of this longer process for the bulk of the ACD activity for EELs. (Tr. 1234) Joint CLECs maintained that using the more efficient, less time consuming process in SBC's cost studies certainly would have reduced the ACD Coverage Activity time. AT&T witness Mr. Turner also recommended eliminating the time to log a call into a Customer Contact Log since this task can be done during the conversation time included in the ACD Coverage Activity. (AT&T Ex. 3.0, pp. 106-107, 111, 114-115) While SBC contends its representatives would be "hard pressed" to record the call as the conversation is occurring, anyone who has taken notes during a meeting, hearing or conference call knows it happens all the time and, in fact, are likely to be more accurate if taken at the time the conversation is occurring.

AT&T witness Mr. Turner further recommended eliminating the task time for "Receipt of service order request assigned by MOR/TEL" given the fact that the receipt of a service order takes no time. (AT&T Ex. 3.0, pp. 110-111, 117) Joint CLECs asserted that SBC's multi-step process for "Receipt of Service Order Activity" is inefficient, requiring at least three steps, including the SBC service representative actually pulling information from one screen and essentially "cutting and pasting" it into another before the service order is received. As Mr. Turner testified, in the many different customer service environments in which he has worked where service representatives must access work orders electronically, he has never seen such an inefficient process. (AT&T Ex. 3.1, p. 28) Costs for this inefficient, embedded process have no place in a forward-looking nonrecurring cost study, according to Joint CLECs.

SBC assumed the same amount of time to handle the fallout of a simple loop order as it does for a complex loop order. (AT&T Ex. 3.0, p. 113) As Mr. Turner testified, this assumption defies common sense and is inconsistent with SBC's typical practice elsewhere. Mr. Turner recommended reducing the time to handle the fallout of a simple order to 10 minutes. (AT&T Ex. 3.0, p. 113)

3. Occurrence probabilities

To the extent that SBC's studies are required to assume primarily automated processes and efficient and forward-looking technology, Joint CLECs reiterated that occurrence probabilities do not come into play. As with activity times, if SBC's studies reflected appropriate forward-looking assumptions, this would result in more reasonable fall out rates and, in turn, fewer required expensive manual activities. Again, Joint CLECs claimed if the need for activities is eliminated, debates about occurrence probabilities become significantly less contentious.

AT&T witness Mr. Turner explained that a problem unique to the New Combination UNE-P Service Order Cost Study is that SBC has erroneously included time for the RCMAC technician to perform several functions which are functions (and resulting costs) that are entirely duplicative of functions (and costs) contained in SBC's unbundled switching nonrecurring cost

study. (AT&T Ex. 3.0, pp. 118-119). The below table below summarizes the duplicative, overlapping tasks that exist in the two cost studies:

Combination ULS Ports	New Combination UNE-P Service Order
Retrieve fallout order - log into Service DirectR and click on service order number	Log into Service DirectR and click on service order number
Review order for clarity (completeness and accuracy).	Review order for clarity and cross reference the service order with ACIS to ensure it's complete with all information required to put in the translations
Send the order to the switch.	Click on the ! To send the order to the switch
Verify order is received by the switch. Switch will send an "order received" message.	Make sure order accepts into translations. This is accomplished by doing a MOI command with the order number in March and then seeing a history record.

As Mr. Turner testified, the same personnel in the same work center (RCMAC) perform these functions in both cost studies and, unless one of the studies is adjusted, SBC will double recover its costs for these four functions. To remedy this clear overlap of functionality and costs, Mr. Turner recommended setting the Probability of Occurrence for these functions in the New Combination UNE-P Service Order cost study to zero. (AT&T Ex. 3.0, pp. 118-119)

4. Service order computer processing costs

Ankum/Morrison noted that computer processing costs are not caused by CLECs placing individual service orders, or even by CLECs placing large volumes of individual service orders. Instead, these costs are caused by the need to collectively accommodate the service ordering process for UNEs as a result of the emergence of competition. Given that all CLECs and SBC itself benefit from the presence of the computer facilities, these costs should be classified as *recurring* costs and not as *non-recurring* costs. (Joint CLEC Ex. 1.0, pp. 141-42).

Joint CLECs noted that the Commission already addressed this issue in its TELRIC II Order, where it found that the computer processing costs are common to all network elements and are more appropriately recovered through recurring charges. Moreover, the Commission noted that recovery of computer processing costs via recurring charges is also consistent with the way Ameritech incurs its costs, which is on a monthly basis. For these reasons, the Commission directed SBC (then Ameritech) to remove all computer processing costs from its nonrecurring charges and to include these costs in the recurring charges for all UNEs. Ankum/Morrison recommended that the Commission reaffirm its TELRIC II decision concerning computer processing costs. (Joint CLEC Ex. 1.0, pp. 141-42; Joint CLEC Ex. 1.1, pp. 19-22)

Joint CLECs dismissed as wholly unpersuasive SBC's attempt to defend its inclusion of the computer processing costs in its Service Ordering NRCs. In this case, SBC essentially reiterated the same position that SBC took in the TELRIC II proceeding, claiming that computer processing costs are direct costs caused by service orders and therefore appropriately assigned to SBC's nonrecurring service order costs. Joint CLECs, in turn, posited that SBC's argument is

factually and theoretically wrong and is also inconsistent with economic theory and the FCC's directives on how to categorize costs. Moreover, Joint CLECs observed, SBC witness Richard Florence made virtually this same claim in Docket 98-0396. (MCI Cross Ex. 36, pp. 16-17) Joint CLECs urged the Commission to again reject this argument as it did in its TELRIC II Order. SBC simply attempts to collaterally attack the Commission's TELRIC II order without offering any change in facts or law that would warrant a different conclusion.

Joint CLECs asserted that SBC's argument is factually wrong because computer costs do not vary on a per service order basis. No computer costs ever vary on a per key-stroke basis. (Joint CLEC Ex. 1.1, p. 19) In a sense, SBC admits as much by injecting the qualifier "in the long run," presumably because the claim that computer costs vary on a per service order basis is so contrary to common experience and common sense.

Joint CLECs further asserted that SBC's argument is also theoretically incorrect. As discussed, the *Virginia Arbitration Order* correctly specifies that costs should be recovered through non-recurring charges when only the ordering CLEC benefits and no other entity does. (Joint CLEC Ex. 1.1, pp. 5-6) Obviously all CLECs and SBC itself use and benefit from the computers, and their costs should be recovered through recurring charges. (Joint CLECs, Ex. 1.1, pp. 19, 20, 21)

In addition, AT&T witness Turner testified that SBC inappropriately included OSS cost recovery in all of its nonrecurring service order cost studies. Efficient OSS costs should be and are recovered through *recurring* rates. In fact, Mr. Turner testified, the systems costs that SBC attempts to recover through nonrecurring charges are already included in the support assets and overhead loading factors applied generally to all unbundled element charges. Thus, SBC's OSS costs (hardware, system software, processor costs, updates, and upkeep) are already recovered in SBC's recurring wholesale and retail rates. (AT&T Ex. 3.0, p. 86-87). Additionally, Joint CLECs noted companies such as SBC have mechanized their processes and systems over the years because it lowers costs in the long run and makes good business sense. (AT&T Ex. 3.0, p. 87)

The underlying OSS are utilized for network provisioning and administration, including, but not limited to, additions, rearrangements, recent changes, and performance surveillance. While some of SBC's existing OSS may require upgrading and/or modification to allow new entrants equal access to them, these investments are "transitional" investments or "competition onset" investments and represent the costs to transition SBC's network from a single-carrier network to a multi-carrier network. Again, Joint CLECs argued that a proper restatement of SBC's nonrecurring costs should not model these investments, because they should be recovered through existing recurring costs. (AT&T Ex. 3.0, p. 87) Because all service order computer processing costs are already captured in recurring UNE rates and in the common cost allocation applied to all UNEs consistent with the Commission's TELRIC II Order, AT&T witness Mr. Turner recommended the Commission reject SBC's proposal to include them in its nonrecurring cost studies to avoid double recovery of these costs. (AT&T Ex. 3.0, pp. 110, 113, 116-117)

5. Fallout rates

Joint CLECs noted that fall out rates have a huge impact on the magnitude of SBC's proposed NRC rates. Ankum/Morrison showed that SBC's proposed fall-out rates were reflective of errors in SBC's own legacy systems and a general lack of systems integration. TELRIC studies, in contrast, should assume that service ordering and service provisioning systems are designed and integrated to prevent virtually any fall-out. Joint CLECs contended that SBC should be held to the standards of commercial applications, such as online systems (orbitz.com for online air travel reservations, or amazon.com) or ATM machines. But, because there are no market mechanisms to force SBC to improve its OSS, the Commission should approve non-recurring charges based on low levels of fall-out, in order to force SBC to behave as if it were subject to competitive pressures at the wholesale level, as it did in its TELRIC II Order. In contrast, argued Joint CLECs, to approve SBC's proposed fall-out rates would reward SBC and penalize its captive customers, CLECs, for SBC's inefficiencies, as noted in the *Virginia Arbitration Order*. (Joint CLEC Ex. 1.0, pp. 53-75)

Joint CLECs contended that SBC's actual fall-out rates *should not be viewed as presumptively reasonable or efficient*. First, Joint CLECs pointed out that SBC achieves higher flow-through rates in other contexts. A good example is SBC's EASE system, which SBC itself claims achieves flow-through (the converse of fall-out) of 99%. SBC has stated to the FCC: "Our consumer EASE product permits a 99 percent flow-through of all service orders that are entered by our residential or consumer retail operations. We would expect the same flow-through from a trained CLEC service rep." (Joint CLEC Ex. 1.0, p. 67) The Joint CLECs argued that the Commission should not permit SBC to walk away from this accomplishment at the expense of CLECs. (Joint CLEC Ex. 1.0, p. 71-74)

Second, as Ankum/Morrison noted, the decision-making process used by SBC's IT department, which is in charge of OSS improvements, is flawed and fails to include a critical component in its analysis of systems acquisitions and upgrades: the costs and benefits to CLECs. Instead, SBC's IT department only considers SBC's costs and benefits from implementing OSS improvements. In the absence of competitive pressures on SBC's wholesale division, SBC has no strong incentive to invest in its OSS, and consequently will under-invest which means that SBC's actual fall-out rates simply cannot presumptively be considered reasonable, efficient or the "best state of OSS" that can be achieved. (Joint CLEC Ex. 1.0, pp. 73-74)

Ankum/Morrison maintained that, in general, fall-out rates should be no higher than 2%. However, given that UNE-P migrations are so "plain vanilla" and run-of-the-mill, there really is no reason for there to be any fall-out at all, and UNE-P migration fall-out rates should therefore be no higher than 1%. (Joint CLEC Ex. 1.0, pp. 73-74) The fallout rates recommended by Ankum/Morrison are the same as those adopted by this Commission in its TELRIC II Order and by the FCC's Wireline Competition Bureau in the *Virginia Arbitration Order*.

Furthermore, in their Reply Brief Joint CLECs stated that it is clear that with existing technology SBC can achieve flow-through rates of 98% or higher for wholesale services. (Joint CLEC Reply Br., pp. 131) Joint CLECs contended that the Commission and the FCC have already relied on the levels of flow-through in determining that SBC had adequately opened its local market to competition in Illinois sufficiently to justify a finding that SBC had satisfied the market opening requirements of Section 271 of the Telecommunications Act at a level that warranted allowing SBC to provide in-region, interLATA services in Illinois.

According to Joint CLECs, SBC was able to achieve this level of flow through for the types of orders that are most prevalent, *i.e.*, UNE-P, and it is for those orders that CLECs and the Commission requested SBC to “design to flow through.” UNE-P is the service delivery method used to provide mass market service to small business and residential customers in Illinois (779,000 customers as of May 2003), so the priority over the past couple of years was to ensure that UNE-P orders were “designed to flow through” and in fact did flow through.

According to Joint CLECs, in making its recommendation to the FCC that SBC should be granted authority to provide in-region, interLATA service, the Commission relied upon SBC’s ability to achieve a 98% flow through rate. Joint CLECs pointed to the May 13, 2003 ICC 271 Order, wherein the Commission relied upon BearingPoint, the entity that was employed as the objective third-party to test SBC’s OSS. The ICC’s 271 Order noted that BearingPoint found that SBC achieved a 99.5% flow through rate for UNE-P, a 97.9% flow through for unbundled loop orders and a 99.1% flow through rate for local number portability orders. Since the Commission relied upon those rates of flow-through in finding SBC’s local market open to competition, Joint CLECs asserted that it would be wholly inappropriate to now allow SBC to utilize a much lower flow through rate for purposes of its cost studies. Joint CLECs characterized SBC’s change in emphasis on flow through as a “bait and switch” ploy, since SBC gained access to the long distance market on the premise of 98% plus flow through but now seeks to severely inflate its nonrecurring charges by claiming much lower flow through rates in its nonrecurring charge TELRIC studies. This, Joint CLECs maintained, the Commission should not countenance.

Furthermore, Joint CLECs submitted that it is worth noting that should the service delivery method for small business and residential mass market customers change, as it would if ILECs are no longer required to provide unbundled local switching and UNE-P, then other service orders -- such as orders for hot cuts, frame due time, batch hot cuts and EELs -- will become more critical and frequently used by CLECs. This means that in such an environment orders which SBC today claims are “complex” will by necessity need to be designed to flow through with greater levels of automation. The FCC’s *Triennial Review Order* contemplates any phase out of UNE-P – if warranted – will take 27-months. (*Triennial Review Order*, ¶532) Thus, high volumes of orders for hot cuts, frame due time, batch cuts and EELs may be occurring in the near term and certainly within the three year planning horizon of SBC’s cost studies. The flow through for such orders, then, regardless of SBC’s claims that they are “complex” or infrequent, must be commensurate with the high flow through rates demonstrably possible for UNE-P, unbundled loops and LNP. To do anything less, contended Joint CLECs, would violate the principles of TELRIC and the demonstrated expectations of this Commission and the FCC about flow through rates that are necessary to sustain a competitive market.

Joint CLECs agreed with Staff that the Commission should order a 98% flow through rate to determine nonrecurring service order costs. That view is consistent with the Commission’s prior orders, which held that SBC’s cost studies must assume fully automated, forward looking, most efficient technologies and must provide adequate supporting documentation in support of all its nonrecurring charges. (TELRIC I Order, p. 89; TELRIC II Order, p. 39) SBC, however, used flow through rates even lower than the ones the Commission already rejected and, worse, draws upon three months of data from July-September 2002 to support its case. As Dr. Currie himself stated, three months of data is insufficient to establish a

trend (Tr. 1175-1176), and is certainly insufficient to predict one. Joint CLECs noted that while Staff did not address Support Activities, the 98% fallout rate should be the total fallout rate, including Support Activities.

In addition to Ankum/Morrison's recommendations, AT&T witness Turner made specific recommendations concerning the appropriate fallout rates for SBC's nonrecurring service order cost studies. As Mr. Turner explained in great detail, fallout percentages should be based on efficient, forward-looking TELRIC principles and the Commission should maintain a 2% fallout rate for all of the service order cost studies SBC presents in this proceeding.

As Mr. Turner further explained, most of an incumbent's systems are electronically linked and dependent on one another; fallout refers to errors in the electronic flow-through process. For example, if one of the OSS receives erroneous or incompatible information from another OSS, the order will "fallout" and may require manual intervention to correct or complete it. Other causes of fallout include communication link failures between different OSS, software release incompatibility, polluted databases (*i.e.*, the information in the various ILEC databases do not match) hardware failures, or system maintenance problems. In many instances, Joint CLECs noted, fallout is the only cost driver for an otherwise seamless electronic flow-through process. (AT&T Ex. 3.0, p. 89)

Joint CLECs argued that to achieve a very low level of fallout, SBC must "clean-up" these databases to remove errors and inconsistencies, and must monitor them on an ongoing basis to ensure that they remain free of errors and inconsistencies. (AT&T Ex. 3.0, p. 89-90). They claimed that efficient OSS eliminates the need to make multiple manual entries in all the databases and reduces the probability of an entry error somewhere that undermines the ability of the systems to provide flow-through. As Mr. Turner testified, all of the best available OSS that exist today, when operated in an efficient manner, provide for flow-through functionality and provide minimal fallout. (AT&T Ex. 3.0, p. 91)

Significantly, Mr. Turner emphasized that this Commission has already determined that two percent is the appropriate forward-looking fallout percentage to use for service order processing. TELRIC II Order, pp. 41-42 This determination is consistent with SBC's retail EASE system, which achieves a flow-through capability of nearly 99 percent. (AT&T Ex. 3.0, pp. 93-94) As Mr. Turner revealed, according to SBC witness John M. Mitchell, SBC's own publicly available performance data indicates that its flow-through of resale CLEC orders is approximately 98 percent, consistent with this Commission's conclusions. (AT&T Ex. 3.0, p. 95)

AT&T witness Mr. Turner stressed that the same electronic interfacing that occurs with retail provisioning must also occur with UNE provisioning and that TELRIC principles do not allow SBC to recover its embedded costs; rather, they require that the Commission ensure that SBC recovers only its efficiently incurred, forward-looking costs. That way, CLECs are able to operate in a non-discriminatory cost environment vis-à-vis SBC. If SBC is able to provide service to its retail customers with virtually no incremental cost because of its ability to flow the service order through internally but charges CLECs approximately \$100 in a UNE environment to perform the same work (as SBC essentially proposes here), Joint CLECs argued that the Commission will in effect establish a discriminatory system that hinders or destroys the

development of competition and that poses a serious barrier to entry. (AT&T Ex. 3.0, p. 94-95). Because SBC has no independent incentive to provide the same flow-through to CLECs that it does for its own retail service order provisioning, they urged that the Commission must retain flow through percentages consistent with the use of efficient OSS, as it did in the TELRIC II Order and consistent with the conclusions of other state commissions such as Wisconsin, Michigan and Missouri. (AT&T Ex. 3.0, pp. 95-97; AT&T Ex. 3.1, p. 36) Joint CLECs claimed that a two percent fallout percentage is consistent with the performance of SBC's own retail systems and will establish costs for service order processing that are nondiscriminatory when compared to the cost SBC expends for its own provisioning operations. (AT&T Ex. 3.0, p. 95-97).

Implementing a two percent fallout rate, according to Joint CLECs, will operate a bit differently now given the fact that SBC has introduced a new approach to developing the cost for fallout. Previously, SBC identified the amount of time required to handle an order that fell out for manual processing and then multiplied this time by the fallout percentage. In its proposed service order cost studies, SBC has retained the same basic approach, but has now added what SBC refers to as "Support Activities." As Mr. Turner testified, these "Support Activities" represent the manual intervention activities performed by SBC's Local Service Center and are, in effect, additional forms of fallout. These "Support Activities" are: (1) Reject activity; (2) Supplemental order activity; (3) 3E error activity; (4) Pending Past Due ("PPD") activity; (5) Error Service Order Image ("ESOI") Error activity; and (6) Automatic Call Distributor ("ACD") Coverage activity. For each of these six "Support Activities," SBC witness Dr. Currie proposed that the Commission include the incremental time for the activities weighted with the probability that this manual work will occur *in addition to the fallout percentage for CLEC service orders*. (AT&T Ex. 3.0, p. 98-99).

Alarming, as SBC witness Mr. Christensen, the LSC expert, testified, the LSC personnel that provided these Support Activity times and percentages for use in SBC's cost studies were told absolutely nothing about the fact that SBC was going to use these Support Activity times and occurrences *in addition to a basic fallout assumption*. (Tr. 1240-41; 1246-47) Certainly, argued the Joint CLECs, the LSC should have been made aware what fallout percentage SBC was assuming in its cost studies. As Mr. Christensen also acknowledged, these support activities are, in many cases, designed to remedy the same activities that are captured by the fallout allowance. For example, ESOI Activity only occurs when an order that passes the initial edit process falls out because the order information fails to "synch up" with SBC's other databases. (Tr. 1222-1223). 3E errors only occur when, according to SBC, "there is a discrepancy that the billing system is seeing that prevents it from again being able to submit a bill to the CLEC." (Tr. 1224-1225). As Mr. Turner testified, CLECs should not be required to pay these costs through SBC's nonrecurring charges.

Mr. Turner also expressed grave concern that, when calculating its basic service order charges, SBC used a fallout rate that is more than six times the current Commission-approved rate. (AT&T Cross Ex. 41P, pp. 1-2) and is based on data from mid-2002. (Tr. 1187) Adding the additional Support Activity costs to these basic service order charges increased the service order charge for existing and new UNE-P by more than 50% (AT&T Cross Ex. 41P, Tab 6.8 Column C and Tab 6.4 Column C; Tr. 1243-1245, 1248) and more than doubled the rate for the unbundled local switching line port and truck port service order charge. (AT&T Cross Ex. 41P,

Tab 6.1 Column C; Tr. 1249). When these Support Activities are added to SBC's basic fallout assumption, SBC's overall fallout rate is more than *eighteen times* the Commission-ordered fallout. (AT&T Ex. 3.1 at 21) As the Joint CLECs overwhelmingly demonstrated, the fallout rates SBC proposes here are anything but reasonable. In fact, SBC's own data reveals the absurdity of its proposed fallout rates, which have continued to trend downward during the twelve month period ending December 2003. As AT&T witness Mr. Turner noted, from January 2003-December 2003, SBC's actual flow through data for UNE Loops confirms the reasonableness of 2% fallout. (AT&T Ex. 3.1P, pp. 37-39, 43) Because, as Mr. Turner testified, the embedded probabilities that these support activity tasks will occur cannot be used any more than the embedded fallout percentage for UNE orders can be used, Mr. Turner significantly revised the probabilities of occurrence to integrate the overall two percent fallout with the "Support Activities" that would exist in a forward-looking process as follows:

Reject Activity – As Mr. Turner testified, with efficient, forward-looking OSS, the probability of Reject Activity should be very low because when the CLEC sends an incomplete or inaccurate electronic order to SBC, edits in the systems interface identifies this information gap electronically and sends notice back to the CLEC automatically, with no manual processing. Once the order satisfies this edit checking process, it should be able to interface efficiently and automatically into SBC's internal systems, allowing the order to complete electronically and without manual processing. Against all reason, Mr. Turner lamented, SBC assumed that an astronomical (and embedded) percentage of its orders will require Reject Activity. (AT&T Ex. 3.0, pp. 99-100). As Mr. Turner explained, Rejects ought be a part of the overall two percent fallout and, because SBC has divided fallout up more finely than it has in the past, the two percent fallout must be split to attribute some of it to the Reject Activity process. (AT&T Ex. 3.0, p. 100).

Supplemental Order Activity –According to SBC witness Mr. Christensen, SBC is unable to electronically process the majority of these supplemental orders, which are changes to pending orders. (Tr. 1225-1226). As Mr. Turner explained, this embedded, manual process is neither efficient nor forward looking and, again, results in an astronomical percentage of orders requiring Supplemental Order Activity. (AT&T Ex. 3.0, p. 100-101). In restating SBC's nonrecurring service order studies, AT&T witness Mr. Turner retained this process but significantly reduced its probability such that it corresponds to the overall fallout percentage of two percent on a forward-looking basis. This is consistent with the January 5, 2004 order of the Indiana Commission, which determined that the percentage for each of SBC's six support activities should be the lower of 1% or SBC's proposed percentage. (Indiana Order, pp. 114-115).¹⁶

¹⁶ Joint CLECs stated that SBC had incorrectly asserted that the fallout rates the Indiana Commission adopted are "substantially higher" than those proposed by AT&T. They stated that, in fact, the Support Activity percentages the Indiana Commission adopted are "substantially lower" than those proposed by SBC. For basic orders, Mr. Turner recommended setting the Reject Activity probability at 1% by splitting the 2% percent fallout evenly between the "traditional" (non-Reject) fallout and the Reject fallout process. The Indiana Commission set the Reject Support Activity at 1% or SBC's proposal, whichever is lower. (Indiana Order at 114) Mr. Turner recommends setting the Supplemental Order Activity probability at one percent. The Indiana Commission set it at 1% or SBC's proposal, whichever is lower. (*Id.*) Mr. Turner recommended setting the 3E Error Activity, the ESOI Error Activity and the PPD activity to 0.00 percent. The Indiana Commission set these at 1% or SBC's proposal, whichever is

3E Error Activity – As SBC witness Mr. Christensen stated, 3E Error Activity occurs when a CLEC order flows through the ordering and provisioning system but the CLEC is not billed by SBC due to a “discrepancy” in SBC’s billing system. (Tr. 1224-1225). This activity is a classic case of OSS inefficiency and has no place in a forward looking environment; as such, AT&T witness Mr. Turner recommends setting the probability of and labor time for this activity to 0.00 percent. (AT&T Ex. 3.0, p. 101).

PPD Activity –Pending Past Due, or PPD, activity occurs when SBC is unable to provision the order by the scheduled due date. However, the two percent fallout percentage already reflects an efficient, forward-looking fallout percentage for these processes and no additional probability or cost for this process is necessary. (AT&T Ex. 3.0, pp. 101-102).

ESOI Error Activity – An ESOI error occurs when the service order is rejected because the order information does not “synch up” with various SBC downstream databases due to database pollution/contamination/inaccuracies. These errors are due, by SBC’s own admission, to an SBC database integrity error and, as Mr. Turner testified, is simply a variation on the Reject Activity process and should not be separately accounted for in the cost study because the Reject Activity probability and labor time already capture the cost for this function. (AT&T Ex. 3.0, p. 102).

ACD Coverage Activity – According to Mr. Turner, SBC assumes an extremely large (embedded) percent of all orders require a phone call from the CLEC to the LSC that is inappropriate in an efficient, forward looking environment. (AT&T Ex. 3.0, p. 102). In fact, SBC witness Mr. Christensen acknowledged that the calls included in the ACD coverage activity include calls for manual or faxed orders (Tr. 1232) – a process that would not occur, with rare exception, in a forward looking environment. As Mr. Turner explained, the probability of ACD Coverage Activity should correspond to the forward-looking fallout percentage. (AT&T Ex. 3.0, pp. 102-103).

As Mr. Turner explained, there is absolutely no record evidence to demonstrate that these additional support activities should – as SBC contends – be added to the fallout percentage. To the contrary, as Mr. Christensen candidly testified, the Local Service Center was told nothing about the (exorbitant) level of fallout SBC was already assuming in its cost studies, or that it was assuming one at all. In addition, as Mr. Turner explained, the data supporting SBC’s Support Activities was gathered over a one, two or three month period (from late 2001 and early 2002) more than two years ago and is, at best, outdated and does not reflect the most forward looking, efficient processes currently available. (Tr. 1187, 1214-1215). As SBC witness Dr. Currie himself testified, one year of data is insufficient upon which to predict a trend (Tr. 1175-1176),

lower. (*Id.*) In this proceeding, SBC’s 3E Error probability is more than ten times higher than that adopted in Indiana. Finally, Mr. Turner recommended setting the ACD Coverage Activity to a probability of 0.50 percent (AT&T Ex. 3.0, p. 103), which the Indiana Commission set to 1% or SBC’s proposal, whichever is lower. (*Id.*) This percentage is much lower than the exorbitant percentages SBC proposes here. Joint CLECs concluded that it is SBC, not AT&T witness Turner, that presented proposals way out of line with the Support Activities adopted by the Indiana Commission.

using a small data set is always a “little bit of a concern” (Tr. 1185) and, in his assessment, “recent experience should be the basis for evaluating and determining forward-looking fallout rates.” (Tr. 1186).

Mr. Turner therefore recommended that for basic orders, (1) the Reject Activity probability be set at one percent (consistent with the Indiana Order) by taking the two percent fallout and splitting it evenly between the “traditional” (non-Reject) fallout and the Reject fallout process; (2) the Supplemental Order Activity probability be set at one percent; (3) the 3E Error Activity and ESOI Error Activity be reset to a probability of 0.00 percent since the fallout for Reject is already captured in the Reject Activity process; (4) the PPD activity be set to 0.00 percent; and (5) the ACD Coverage Activity probability be set at 0.50 percent, which generously assumes that one out of every four fallout orders will require a phone call from the CLEC to the LSC. (AT&T Ex. 3.0, p. 103).

Recommended Fallout Rates – For simple EEL service orders, AT&T witness Turner recommended a two percent fallout percentage. For complex EEL orders, Mr. Turner recommended that the Commission adopt a fallout rate of 10 percent (nine percent to traditional or typical fallout and one percent to Reject Activity) consistent with the rest of SBC’s cost studies for complex orders. All of the other proposed “Support Activities” probabilities would remain unchanged from Mr. Turner’s recommendations for simple service orders. (AT&T Ex. 3.0, p. 104). As Mr. Turner also explained, while SBC’s Existing UNE-P Service Order Cost Study, Unbundled Loop Service Order Cost Study and New Combination UNE-P Service Order Cost Study distinguish between costs for simple orders (POTS) and costs for complex orders (Non-POTS), it uses a single fallout percentage for both POTS and Non-POTS orders – a practice that is at odds with SBC’s cost study design in other jurisdictions. Accordingly, Mr. Turner adjusted these studies to provide for a two percent POTS fallout percentage and Non-POTS (complex) fallout percentage of 10 percent consistent with SBC’s practice in other jurisdictions. (AT&T Ex. 3.0, pp. 109-110, 112-113, 117).

6. Other (including rate design issues)

SBC’s proposal has connect and disconnect activities included in service ordering as well as line connection service provisioning NRC studies. (Joint CLEC Ex. 1.0, p. 90). Joint CLECs contended, as discussed in greater detail elsewhere, connect and disconnect achieving should be separated. Ankum/Morrison calculated and proposed separate charges for connects and disconnects. This is consistent with Staff’s proposed treatment of connect and disconnect activities as well as with the concept of cost causation. Moreover, it is consistent with this Commission’s recommended treatment on a going-forward basis of these activities in its comments to the FCC’s TELRIC NPRM. (ICC TELRIC NPRM Comments, p. 82)

AT&T witness Mr. Turner also made a number of recommendations regarding rate design for SBC’s service order nonrecurring cost studies, as discussed in the following subsections:

a. Separation of Connect and Disconnect Costs

AT&T witness Turner explained that SBC inappropriately combined the Connect and Disconnect nonrecurring costs into a single, upfront charge and wrongly assumed that for every UNE the average time between the connect cost and disconnect is two years, regardless of whether SBC provisions elements that virtually never change, such as transport arrangements, or elements that may change more often, such as features on a basic line port. At bottom, Mr. Turner explained, SBC's proposal inappropriately requires CLECs to pay for work in advance despite the very real possibility that the work will never be performed and, therefore, costs may never be incurred (i.e., when the customer migrates to another CLEC or back to SBC and no disconnection occurs). According to Mr. Turner, SBC's proposal violates cost causation principles and requires CLECs to pay disconnect costs that may never be incurred; therefore, he recommends that the Commission require SBC to segregate connect and disconnect charges in all of its nonrecurring cost studies such that the CLEC only pays for a disconnect if one occurs, consistent with cost causation principles and TELRIC principles and consistent with the recent order of the Indiana Commission and the *Virginia Arbitration Order*. (AT&T Ex. 3.0, pp. 85, 108, 112, 116; Tr. 871-872; Indiana Order, p. 113 (citing *Virginia Arbitration Order* ¶¶ 596-598))

b. Rate Design Issues Related to SBC's Enhanced Extended Loop (EEL) Service Order Cost Study

As AT&T witness Mr. Turner testified, one section of SBC's EEL cost study proposes different service order charges for the loop, transport and multiplexing when these facilities are ordered as part of an EEL combination than when they are ordered on a stand alone basis, making the cost development and practical implementation of EEL service order charges far more difficult than necessary and much more difficult than it is in other states in the SBC territory. (AT&T Ex. 3.0, pp. 83-84). For example, Mr. Turner explained, SBC Missouri recognizes just two classes of service orders – simple and complex; the transport and multiplexing portions of an EEL fall into the complex category. Ordering the loops that will be cross connected to the transport facility fall into the simple category. SBC Illinois creates much more complexity than is necessary or warranted. (AT&T Ex. 3.0, p. 84). Mr. Turner therefore recommended that the Commission eliminate any difference between the service order costs for a stand alone loop and the service order costs when that same loop is used as part of an EEL when the only difference is where the cross-connect occurs in the central office. (AT&T Ex. 3.0, pp. 84-85). To implement this fundamentally important change, AT&T witness Mr. Turner revised SBC's EEL Service Order Cost Study to conform the service order charges for ordering 2-Wire Analog, 4-Wire Analog, 2-Wire Digital, DS1, and DS3 Loops to the service order charges resulting from SBC's unbundled loop service order cost study so that the same service order charges apply regardless of whether loops are ordered on a stand alone basis or as part of an EEL combination. (AT&T Ex. 3.0, pp. 84-85).

Finally, as Mr. Turner explained, SBC neglected to file a service order cost study for Subsequent Orders for DS1 Loops. Mr. Turner used SBC's EEL Service Order Cost Study to develop this cost and recommended that the Commission adopt his proposal for Subsequent Orders for stand alone DS1 loops and DS1 loops used in an EEL combination. (AT&T Ex. 3.0, p. 85).

c. Rate Design Issues Specific to SBC's Existing UNE-P Service Order Cost Study

As AT&T witness Mr. Turner explained, in developing its *Existing* UNE-P Service Order Cost Study, SBC blended the service order cost for migrating a UNE-P line with dial tone with the service order cost for establishing a UNE-P line without dial tone, the probabilities of which are at extreme opposite ends of the spectrum. (AT&T Ex. 3.0, p. 108). Because the probability of the “no dial tone” option happening is so small, it makes little sense to blend the costs of these two scenarios, particularly because SBC lacks the ability to distinguish between a new UNE-P service order where everything is already wired but there is no dial tone from a new UNE-P service order in which the combination is not already wired, in which case it is likely SBC will charge the CLEC for a New UNE-P Combination rather than an Existing UNE-P Combination. As Mr. Turner testified, the most prudent approach is to apply the New UNE-P Service Order cost to all service orders where no dial tone exists, regardless of whether the wiring is in place and to apply the Existing UNE-P Service Order charge in those situations where an existing customer (with dial tone) is simply migrating to the CLEC. To accommodate this change, Mr. Turner set the “with dial-tone option” at 100 percent probability and the “without dial-tone option” at 0.0 percent probability. (AT&T Ex. 3.0, pp. 108-109).

Mr. Turner also modified the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan in restating all of SBC's nonrecurring cost studies. Mr. Turner's restated nonrecurring charges for the EEL Service Order Cost Study are contained in Attachment SET-5P (Revised). Mr. Turner's restated Existing UNE-P Service Order Cost Study is reflected in Attachment SET-4P (Revised). Mr. Turner's proposed revisions to SBC's Unbundled Loop Service Order Cost Study are contained in Attachment SET-3P. The restated nonrecurring charges from the New Combination UNE-P Service Order Cost Study are contained in Attachment SET-4P (Revised).

C. Provisioning (Loops and EELs) Nonrecurring Cost Studies

Joint CLEC witnesses Ankum/Morrison reviewed and analyzed SBC's service provisioning nonrecurring cost studies and based on their recommended changes to those studies, provided revised cost studies and proposed rates for service order activities. (Joint CLEC Ex. 1.0, Attach. 3-P). Their analysis encompassed SBC's service provisioning NRC studies for Combination ULS Port, Custom Routing, ULS Port Features, EEL - New, Special Access to EEL Conversion and Loops. (Joint CLEC Ex. 1.0, p. 9). As noted above, Ankum/Morrison faulted the inflated nature of SBC's proposed non-recurring costs and SBC's failure to properly apply the critical distinction between recurring and non-recurring costs. As a result, the Joint CLECs argued, the non-recurring costs calculated by SBC are not truly non-recurring costs, but are rather an inappropriate mixture of recurring and non-recurring costs. Much of what Ankum/Morrison did in correcting SBC's cost studies simply related to eliminating the recurring cost characteristics and components from SBC's NRC cost studies and correcting cross-connect, testing and travel times.

1. Identification of tasks

SBC belatedly claimed that all standalone UNE loops are “designed,” claiming that its initial loop provisioning study did not incorporate this process. SBC’s claims are supported by SBC witness Ms. Gomez-McKeon, yet her testimony contained hardly any discussion of the issue. Ankum/Morrison testified that there is simply nothing about basic Plain Old Telephone Service (“POTS”) unbundled loops that requires custom design. Further, unless they are deficient, all basic loops in SBC’s network support basic POTS service. No design work is needed. Further, SBC has filed virtually the same NRC studies in Indiana and in Michigan and in neither jurisdiction did the SBC treat the unbundled loops as design circuits. It is hard to understand why unbundled loops in Illinois would be different from those other states. (Joint CLEC Ex. 1.1, p. 33). Joint CLECs therefore urged that this change to SBC’s case is unsupported and should be rejected.

Joint CLECs disagreed with SBC’s characterization that they propose to indiscriminately eliminate a number of activities based on their alleged short-hand descriptions – *e.g.*, any activity described as a “validation” or “verification” activity. Joint CLECs also take issue with SBC’s assertion that Joint CLECs speculate that these activities are excessive and are the result of (a) SBC’s poorly designed LSR process, (b) lack of systems integration, and (c) errors in SBC’s legacy systems.

Joint CLECs noted that this issue is once again related to two other, previously discussed issues: (1) the state of SBC’s OSS, and (2) whether or not CLECs should be held accountable for errors caused by SBC. First, the Joint CLECs have demonstrated that fallout caused by SBC’s OSS results in more extensive scrutiny by technicians for downstream activities. (Joint CLEC Ex. 1.0, pp. 85-89) As such, Joint CLECs argued, the SME estimates for these activity times will reflect SBC’s actual operations and not the forward-looking OSS required under TELRIC. (Joint CLEC Ex. 1.0, pp. 85-89)

Second, Joint CLECs contended that to the extent that technicians are checking for errors and inconsistencies that stem from SBC’s own legacy systems -- and there are many such instances (Tr.1281-1283) -- economic theory and TELRIC dictates that SBC and not the CLECs pay for these validation and verification activities. By contrast, to have CLECs pay for these activities is to create a perverse incentive structure under which SBC would have no reason to improve its operations. (*Virginia Arbitration Order*, ¶592)

AT&T witness Mr. Turner strongly objected to the SBC’s critically and fundamentally flawed assumption that all stand alone loops and loops used as part of an EEL must be designed. As Mr. Turner explained, a “designed loop” (and the accompanying rigorous testing) is only necessary when the loop is to be used in a “Special Service” application and require a higher level of capability and reliability than regular POTS loops. As the Joint CLECs convincingly demonstrated, however, designed loops are not necessary for stand alone POTS loops or EEL loop applications, and it is discriminatory for SBC to require that such loops must be designed. (AT&T Ex. 3.0, pp. 27-28).

Moreover, Joint CLECs asserted that SBC’s proposed costs for designed loops include costs for activities that SBC will not perform. For example, SBC witness Ms. Gomez-McKeon testified that when a working loop is migrated from the SBC switch (*i.e.*, the customer is being served by SBC or by a UNE-P CLEC) to a CLEC switch, SBC’s cost filing assumes that the

CLEC must pay the cost for designing and testing the loop even though the loop is already working and must simply be cross-connected to the CLEC collocation arrangement or, in the case of an EEL, to Interoffice Dedicated Transport. (Tr. 1473-1477). Because the loop is already working, Mr. Turner explained, there is no justification for SBC to do anything other than to simply migrate the working loop over to the CLEC collocation arrangement or transport element. (AT&T Ex. 3.0, p. 29).

Tellingly, CLECs pointed out, SBC's original proposal was that stand alone UNE loops would not be designed loops. In fact, according to the Direct Testimony of SBC witness Mr. Chris F. Cass (adopted by Dr. Kent Currie), SBC Ex. 6.0, p. 26, submitted at the time of SBC's original tariff filing, "the only major difference is that the POTs loops represented by the line connection charge are simpler to provision than the designed analog and digital loops identified in the EEL cost study." Joint CLECs maintained that SBC was right the first time with respect to POTS loops; there was and is no need for them to be designed. Stand alone POTS loops are no different in technology and no different to provision then they were when Mr. Cass submitted his direct testimony.

Moreover, as AT&T witness Mr. Turner testified, an additional test point is a common feature of a designed loop, yet SBC places no additional test points on the loops it proposes be "designed." (Tr. 1578). When the loop is moved from the SBC switch to a CLEC collocation arrangement or to EEL transport, its architecture and capability does not change. It is still a loop from the customer premise to the central office, and nothing associated with the design process has been introduced into the mix. (Tr. 1578-1580). In addition, as AT&T witness Mr. Turner testified and as SBC witness Ms. Gomez-McKeon acknowledged, design costs are already included in the costs for the transport portion of the EEL. (Tr. 1473; 1579-1580). Joint CLECs asserted that there is no need to include testing costs for the loop element as well. (AT&T 3.0, p. 30)

SBC attempts to defend its design process by stating that it is necessary to ensure that the assigned facility satisfies the requirements of the ordered product. As Mr. Turner demonstrated, this cannot be a valid reason because SBC requires that even working POTS loops being migrated from an SBC switch to a CLEC loop must be designed and there is no question that those loops already satisfy the requirements of the ordered product. (Tr. 1476). SBC also claims it must verify the CFA information and must establish the circuit into the TIRKS system. Essentially, Mr. Turner testified, this is nothing more than an inventory function (*i.e.*, inventorying the cross connect). While Mr. Turner acknowledged the need to inventory the cross connect, that need also exists *for both SBC's retail services and UNE-P loops*, which are not designed loops under SBC's proposal. As Mr. Turner repeatedly stressed, SBC's illogical and unsupported design proposal for POTS loops and EEL loops must be rejected.

Finally, Joint CLECs argued that SBC's citation to the Indiana Order is purposefully misleading. While it is true that the Indiana Commission adopted SBC's designed loop proposal for the somewhat more complicated circuit layout of EEL loops, that ruling does not apply to stand alone POTS loops *because SBC did not propose that POTS loops must be designed loops in Indiana*.

2. Activity times

Joint CLEC witnesses Ankum/Morrison recommended that the Commission reject SBC's inflated and largely unsupported travel times. (Joint CLEC Ex. 1.0, pp. 103-06). Since SBC's travel time estimates reflect SBC's SMEs' personnel experience of their "historic" and "actual" travels, these estimates are highly suspect and likely irrelevant. (Joint CLEC Ex. 1.0, p. 106-07). Travel times will vary greatly from area to area. Given that SBC's SMEs have not performed a systematic and valid statistical analysis of travel patterns, it is simply unknown how their subjective judgments average travel times across the state: on its face, a subjective SME estimate is not likely to be a reasonable substitute for what should be a complex statistical analysis, according to Joint CLECs.

Ankum/Morrison showed that SBC's SMEs' experiences would over-represent travel times for older and longer loops, which have the greatest likelihood of breaking down, while shorter and newer loops will break down less frequently. (Joint CLEC Ex. 1.0, p. 107). In view of this, Joint CLECs contended that SBC's SME estimates are virtually meaningless. (Joint CLEC Ex. 1.0, p. 106).

Additionally, SBC's travel times were inconsistent with a reasonable set of assumptions regarding technician travels and job activities and locations. Ankum/Morrison demonstrated how SBC's travel time estimates would result in a situation in which SBC's technicians could spend easily 6 hours a day traveling. This outcome is irrational given that the travel times reflect the average of statewide travel, which means that in certain portions of the state, travel times would actually exceed 6 hours a day, leaving no time for performing actual tasks. (Joint CLEC Ex. 1.0, p. 108).

Using a reasonable set of assumptions, Ankum/Morrison calculated alternative travel times. They recommended that the Commission adopt their *method* for estimating travel times. Further, based on their method and a reasonable set of inputs, they recommended a travel time of 9.5 minutes for travel to the FDI/SAI and/or end-user locations, and made no change to SBC's estimate for travel time to unmanned central offices. (Joint CLEC Ex. 1.0, pp. 116).

With respect to cross connect times, Ankum/Morrison disagreed with SBC's time estimates for cross connects for standalone loops, UNE-P loops, DS1 and DS3 loops for several reasons: (1) the cross-connect times are unsupported by a systematic analysis, making it impossible to audit how the estimates were derived; (2) SBC's time estimates did not comport with their experiences, and appeared unreasonably high; (3) SBC's NRC cost studies ignored forward-looking MDF technologies, such as one-sided cosmic frames that allow for shorter and more efficient cross-connect times (Joint CLEC Ex. 1.0, p. 117); (4) no forward-looking, most-efficient technologies appeared to be incorporated/reflected in SBC's cross-connect time estimates.

Lastly, Ankum/Morrison testified that SBC's SME estimates again failed to distinguish between cross-connect activities that establish permanent connections from which subsequent CLECs and SBC itself will benefit, and cross-connect activities that take place solely for the benefit of the requesting CLEC. As discussed previously, the former activities should have been classified as recurring costs, while the latter should have been classified as non-recurring costs. Joint CLECs pointed out that here, as throughout its studies, SBC simply commingles recurring and non-recurring costs.

Dr. Ankum and Mr. Morrison provided alternative cross-connect times that correct for the aforementioned deficiencies. (Joint CLEC Ex. 1.0, pp. 119-23).

Ankum/Morrison also disagreed with SBC's proposed testing times, for a number of reasons: (1) SBC's SME-provided test times are unsupported (Joint CLEC Ex. 1.0, p. 129) which is problematic because test times are associated with a large number of other activities (such as problem detection, problem resolution and coordination with other technicians); (2) SBC's test times are unreasonably high in view of both newer technologies and their experience. (Joint CLEC Ex. 1.0, p. 132); (3) SBC inappropriately assumed that certain tasks are performed on a *stand-alone* basis, and that SBC failed to account for efficiencies of simultaneous task performance (economies of scale).

With respect to the third reason, SBC ignored that some of the test equipment can be run on a stand-by basis and *do not need active monitoring* by the technician. Correction for this flaw alone would significantly reduce test times, according to Joint CLECs. (Joint CLEC Ex. 1.0, p. 129-132).

Lastly, and most importantly, Ankum/Morrison observed that much of the testing included in SBC's NRC cost studies is simple pre-service testing that should result in little, if any, error detection in a newly constructed network assumed in a TELRIC proceeding. However, *SBC should not have classified the costs of this type of testing and problem resolution as non-recurring costs*. Clearly, all CLECs and SBC itself will benefit from these activities. *Thus, these costs should have been classified as recurring costs*. In any event, Joint CLECs noted that since the SMEs were never instructed to distinguish between activities that would represent *recurring* costs and activities that would represent *non-recurring* costs, their estimates are biased.

Correcting for these considerations, Dr. Ankum and Mr. Morrison provided alternative test times and revised the NRC studies. (Joint CLEC Ex. 1.0, Attachment 3).

Joint CLECs contended that SBC's criticisms of the travel time adjustments are unfounded. SBC complains that Joint CLECs' proposed modifications are not based on any studies, hard data, or first-hand experience performing the relevant provisioning activities on thousands of occasions like SBC Illinois' experts. However, Joint CLECs pointed out, with the exception of the rare travel to the unmanned central offices, which is a tiny percentage of the total travel time reflected in SBC's studies, SBC itself has *failed to provide any support for its travel times at all*. (SBC Initial Br., p. 193, note 66; Joint CLEC Ex. 1.1, pp. 24-25)

Further, Joint CLECs argued that there is nothing in the record to show that SBC's SMEs are qualified in any meaningful way to provide an opinion on the complex statistical issue of what may constitute a representative average travel time estimate. In fact, they claimed that the opposite is true. Ms. Gomez-McKeon, the witness that supports travel time estimates, has no knowledge of statistics and performed no statistical analysis to ensure that the SME samples are representative for Illinois. (Tr. 1412)

Joint CLECs agreed with Staff that there is no justifiable reason for the travel times of the CP&M and the DOG to differ. SBC has provided no support to prove that different geographic

areas are more efficient; to the contrary, Staff is correct that SBC has done nothing more that demonstrate that the DOG is less efficient than the CP&M.

Joint CLECs also assailed SBC's disagreement the Joint CLECs' adjustments to the cross-connect times, contending that SBC does not fairly represent their position on the issue. Specifically, Joint CLECs take issue with SBC's assertion that the Joint CLECs' proposal to randomly reduce several activity times for placing cross-connects based on the assumed use of "one-sided cosmic frames" fails to show that such frames constitute the most efficient (or even efficient) currently available technology, in light of the high costs and operational limitations of such frames.

Joint CLECs submitted that the discussion of the forward-looking frame technology is only a partial basis for the Joint CLECs proposed modifications of the cross-connect times. The Joint CLECs' main reason concerns the experience of the Joint CLECs' own experts in establishing cross-connects. Unlike SBC's SMEs, the Joint CLEC witnesses were available for cross-examination. Also, unlike SBC's SMEs, the Joint CLECs experts discussed and supported their estimates in their prepared testimony. (Joint CLEC Ex. 1.0, pp. 116-124)

With respect to testing activities, SBC's main argument against Joint CLECs' recommendation appears to be that the CLECs' assertions are based on an oversimplification of the necessary testing activities. Joint CLECs asserted, however, that SBC fails to address the lack of support for its test times (Joint CLEC Ex. 1.0, p. 127) and this failure is not rectified simply by criticizing the Joint CLECs.

Further, Joint CLECs contended that SBC also fails to respond to the criticism that certain test activities do not account for the fact that certain tests do not require continuous attendance by the technicians. According to Joint CLECs, SBC's position that its testing time for DS1 CKL testing by the SSC reasonably reflects the multiple tasks involved, and should not be reduced as the CLECs propose is wholly inadequate.

Joint CLECs maintained that SBC fails to address the fundamental question: what costs should be recouped through recurring charges and what costs should be recouped through non-recurring charges. Joint CLECs stated that to the extent that SBC's SMEs have provided time estimates for end-to-end testing of the circuits, it is simply not appropriate to include the full costs of these testing activities in the non-recurring charges. When the facilities are tested end-to-end – and the costs include problem resolution, then all entities that will ever use those facilities will benefit from these testing activities (and problem resolutions when the tests fail) and costs should be recouped through recurring charges and not through non-recurring charges.

AT&T witness Turner also analyzed the activity times in SBC's provisioning cost studies. He reached the following conclusions and made the following recommendations:

Excessive Cross Connect Times and Occurrences: Based on the testimony of its own witness, SBC's provisioning cost studies assume excessive times to perform cross-connects within the central office. Specifically, SBC's cost study assumes that it takes the FOG technician at least twice as long to perform a two-wire cross-connect as its own provisioning witness says it does (assuming a cross connect at both the MDF and the IDF). (Tr. 1482). As

AT&T witness Mr. Turner testified, in his experience and based on his review of numerous nonrecurring cost studies – including SBC’s -- it takes approximately two to three minutes to perform a two-wire cross-connect and Mr. Turner modified SBC’s cost study to assume three minutes to perform a two wire cross connect at the MDF. (AT&T Ex. 3.0, p. 72).

Moreover, as AT&T witness Mr. Turner emphasized and as Tab 6.3 of SBC’s Unbundled Loop Cost Study (Attachment A to Joint CLECs’ Initial Brief) demonstrates, SBC’s provisioning studies assume that a very high percentage of all stand alone unbundled loops ordered by CLECs will require a cross connect at both the MDF *and at the IDF* and that each of those cross connects will take approximately twice as long as SBC’s provisioning witness, Ms. Gomez-McKeon, says it will. (Tr. 1482). Thus, Joint CLECs argued that SBC’s provisioning studies significantly overstate the cross connect costs in the line connection charge.

Moreover, as Mr. Turner explained, the use of an IDF is inconsistent with a forward looking, efficient network; rather, it is a vestige of an embedded central office. Thus, Joint CLECs asserted that all costs associated with an IDF should be rejected. Even assuming the Commission allows any such costs, however, SBC’s cost studies assume that all stand alone loops will be cross connected at an IDF despite the fact that the majority of SBC’s central offices do not have IDFs, thereby significantly overstating cross connect costs in addition to the overstated costs resulting from the admittedly excessive cross connect time estimates.

Mr. Turner also reduced the time it takes to perform a four-wire cross-connect to five minutes based on his experience and his review of similar cost studies in other jurisdictions. (AT&T Ex. 3.0, p. 45) and reduced the time it takes to perform DS1 and DS3 cross connects to two minutes based on the fact that DS1 and DS3 cross-connects utilize pre-connectorized quick connect jumpers that allow the technician to easily establish the cross-connect on DSX frames, thereby requiring less time than it takes to install copper jumpers. (AT&T Ex. 3.0, pp. 45, 72-73). SBC contends that it did not use pre-connectorized jumpers to establish cross connects for central office multiplexing DS1 to voice grade loops because they are “the exception rather than the rule” yet, by this statement, clearly acknowledges that these jumpers are currently available, but chose to ignore them in favor of its embedded technology and practices. Joint CLECs noted that The pre-connectorized jumper is the most forward looking and efficient technology and TELRIC principles require its use. (AT&T Ex. 3.1, p. 79; SBC Initial Br. at 199)

Excessive Order Analysis Times -- In its provisioning studies, SBC’s “Log, Sort, Match, Distribute” task includes essentially “administrative functions,” “matching service order and word document,” “checking that all required information is complete,” “forward order to the installation supervisor,” and “updating of log to reflect estimated time and technician assigned to order.” As Mr. Turner convincingly demonstrated, these activities unquestionably relate to the order itself and not to the number of unbundled loops or entrance facilities being ordered. Therefore, Mr. Turner contended, the “additional” time for this activity must be set to zero consistent with SBC’s practice in Missouri where SBC has admitted that these activities are handled electronically as part of “Order Analysis.” Mr. Tuner left the “initial” time for this function unchanged. (AT&T Ex. 3.0, pp. 49, 62-63).

Joint CLECs stated that SBC significantly overestimates all times for the Order Analysis function for the DOG and CP&M-DOG, of which the primary focus is analyzing the *order* – not

the individual loops themselves. Because there could be additional equipment impacts on the DOG from incremental loops, Mr. Turner recommended substituting 0.50 minutes for the simple task of adding additional equipment requests. (AT&T Ex. 3.0, pp. 50, 63).

Joint CLECs contended that SBC's provisioning cost studies also significantly overstate the time to perform the Order Completion and Closeout function for the Line Connection Charge yet, as Mr. Turner explained, based on his experience with similar functions in other SBC states, there is virtually no work required to perform this function and it should take no longer than one minute. (AT&T Ex. 3.0, pp. 47, 68, 74). Because this activity is focused on closing out the *order* and not on the individual loops themselves, Mr. Turner recommended setting the additional task time to zero. *Id.* For DS1 and DS3 Loops, according to Mr. Turner's experience with similar elements in other SBC states, this task takes approximately five minutes, and provides for incremental time over that assumed for the Line Connection Charge. For the same reasons discussed above, Mr. Turner recommended setting the time for "additional loops " to 0.00 minutes. (AT&T Ex. 3.0, pp. 68-69).

Mr. Turner also recommended setting the time for "Retrieve next available service order from PAWS (Provisioning Analyst Work Station)" to zero in an efficient, forward looking environment, this function is either performed automatically (*i.e.*, electronically) or is an effectively timeless function of selecting the next order on an "open orders" list. (AT&T Ex. 3.0, pp. 37, 69-70). Even SBC acknowledges that "retrieving the next order from PAWS" involves as little as entering a series of keystrokes or clicking on an icon. (SBC Initial Br., p. 200)

As Mr. Turner also discussed, SBC's provisioning cost studies also significantly overstate the time it takes to perform the Log-in and Completeness Check. (AT&T Ex. 3.0, p. 44). Based on Mr. Turner's extensive experience reviewing these costs in other states, including Missouri, this function, which is essentially a review of the *order*, takes no longer than two minutes and incremental loops on the same order require only 0.5 minutes to review the order for completeness. (AT&T Ex. 3.0, pp. 44, 71-72). Joint CLECs argued that, certainly, at minimum, TELRIC requires SBC to incorporate its "best practices" from its other states and there is no reason this function should take almost twice as long in Illinois as it does in Missouri. Contrary to SBC's contention, this activity requires no more time for a DS1 or DS3 Loop than it does for a Digital or Analog 2-Wire cross-connect and Mr. Turner adjusted the times for the DS1 and DS3 Loops consistently. *Id.*

Double Recovery of Recurring Costs – As Mr. Turner explained, SBC's recurring loop rate recovers all of the costs associated with the facility that runs from the main distribution frame in SBC's central office out to the customer premises, including the costs to establish cross-connections at the remote terminal or the SAI/FDI. Consequently, Mr. Turner recommended eliminating these same costs in SBC's nonrecurring cost studies.¹⁷ (AT&T Ex. 3.0, p. 66). Importantly, Mr. Turner did not eliminate *all* DOG time at the SAI/FDI; rather, he eliminated

¹⁷ In the event the Commission does not agree that the recurring loop rate includes the cross connect costs at the SAI/FDI, Mr. Turner has revised the times necessary to perform a cross connect at the SAI/FDI. These revisions and the bases therefore are explained in AT&T Ex. 1.0, Revised Attachment SET-2.

only those costs already being recovered in the unbundled loop recurring rate. (AT&T Ex. 3.0, p. 52).

Excessive Testing Times – AT&T witness Mr. Turner reduced SBC’s assumed pre-service testing times for the Line Connection Charge cross connect to two minutes because, as Mr. Turner explained, when efficiently performed, this test is nothing more than a continuity test to ensure that the jumpers installed on the cross-connect frame provide continuity from one port to another on the frame and is easily performed with a loop at one end of the cross-connect and a hand-held test set sending a signal on the other end. All other testing is performed electronically. As Mr. Turner explained, while the type of qualitative testing that SBC describes in the work activities does, in fact, occur, it occurs for the loop, multiplexer, DCS, or dedicated transport *but does not occur for the cross-connect*. (AT&T Ex. 3.0, pp. 45-46, 53, 67, 73). SBC’s time estimates would double recover costs for the testing time of the elements that are being cross-connected. (AT&T Ex. 3.0, pp. 45-46, 67, 73). For DS1 and DS3 loops, Mr. Turner recommended reducing all CP&M-DOG technician testing times for the Conduct Circuit Testing function to make them consistent with the SSC labor times -- the group primarily responsible for the testing of DS1 and DS3 Loops -- for the same testing. The CP&M-DOG technician works with the SSC to perform the service testing on DS1 and DS3 Loops and SBC has failed to explain or support its use of different testing times for these two groups. (AT&T Ex. 3.0, pp. 67-68).

Excessive Travel Times – As Mr. Turner explained, SBC’s travel times to unmanned central office are also flawed, excessive and unsupported. Moreover, SBC assumed a lesser time for its technicians to reach the Serving Area Interface (“SAI”)/Feeder Distribution Interface (“FDI”) in its Unbundled Loop Study, yet there is no reason the travel time to dispatch a technician to an unmanned central office should be any greater than the time to dispatch a technician to an SAI/FDI in the field. (AT&T Ex. 3.0, pp. 40-41). Even more problematically, Mr. Turner contended, SBC assumed that, once there, the technician will only perform one function. In Mr. Turner’s experience, however, the technician regularly performs other work orders while at that office and, in fact, in another cost proceeding, SBC indicated that the technician may be dispatched to work on “one trouble ticket or many trouble tickets” and that there may “a number of routine work activities that may be required at the time of dispatch.” (AT&T Ex. 3.0, pp. 41-42). In this proceeding, even SBC acknowledges that the technician performs multiple tasks at unmanned central offices on occasion, yet SBC own provisioning witness, Ms. Gomez-McKeon, did not know if SBC’s cost studies incorporated this scenario. The same is true for the travel times to the SAI and FDI. (SBC Ex. 9.2, pp. 6-7; Tr. 1490) (*See* SBC Initial Br., p. 195) Based on his experience and the experience of peers who have actually managed these types of technician functions, AT&T witness Mr. Turner restated SBC’s cost study on the assumption that the technician performs an average of four work orders when dispatched to the unmanned central offices. (AT&T Ex. 3.0, pp. 42, 70).

Consistent with the above correction, Mr. Turner explained that it is not reasonable to include travel time to the unmanned central office for multiplexing in the EEL Cost Study. According to Mr. Turner, multiplexing is not ordered in a vacuum and is rarely – if ever – ordered by itself because it is of no use unless it is connected to transport on one end and loops on the other. Therefore, Mr. Turner explained, travel time to an unmanned central office will

already be included in one (or both) of the loop and/or transport elements and certainly should not also be included in the multiplexing costs.¹⁸ (AT&T Ex. 3.0, pp. 43-44).

Joint CLECs pointed out that SBC's travel times to the SAI/FDI are also excessive and are even different – for the very same trip – in its EEL and its Unbundled Loop Cost Study. (AT&T Ex. 3.0, p. 51). SBC also erroneously assumed just one task per visit, just as it did to unmanned central offices. Based on his experience and his discussions with managers who have overseen these processes in incumbent territories, Mr. Turner restated SBC's cost studies to assume an average of two work orders per dispatch to the SAI/FDI. (AT&T Ex. 3.0, pp. 51-52).

Joint CLECs noted that SBC assumes an even greater travel time to the customers' premises for all-fiber provisioning of DS1 and DS3 loops that it does for developing the Line Connection Charge. (AT&T Ex. 3.0, p. 64). SBC provided no justification for this greater travel time; therefore, Mr. Turner reduced the travel time consistent with the above. As Mr. Turner also explained, SBC's assertion that it might need additional time to "access customer's premises if applicable" is baseless given the fact that the terminal equipment at the customer's location is customarily located in an area that is accessible to SBC without customer facilitation. (AT&T Ex. 3.0, pp. 64-65). In those cases where DS1 loop provisioning requires travel to the Remote Terminal, Mr. Turner recommended, consistent with the Line Connection Charge discussion above, two activities per visit. Where the DOG technician provisions the DS1 Loop from the customer's premises, Mr. Turner assumed that the only activity performed is for the DS1 Loop provisioning. (AT&T Ex. 3.0, p. 65). DS3 Loop provisioning is always done at the customer's premises; accordingly, Mr. Turner assumed only one activity and the same travel time as if the technician were traveling to a central office or an SAI/FDI. (AT&T Ex. 3.0, pp. 65-66).

Miscellaneous -- Mr. Turner set the times for the Circuit Order/Administration function and the Cross Connect function for the disconnect activity equal to those used for connection of the elements because there is no reason for the disconnect time to be longer. (AT&T Ex. 3.0, pp. 47, 74-75). In addition, Mr. Turner recommended setting the time for Corrective Action SOAC/SORD function for the disconnect process in SBC's EEL Cost Study equal to the time SBC assumes for the same activity in the installation-additional process because these processes are identical and, therefore, require the same amount of time. (AT&T Ex. 3.0, pp. 40, 75-76).

Adjustment for EEL Activities – In SBC's EEL cost study, the HICAP Provisioning Center ("HPC") function assigns the transport and loop side assignments to the multiplexer in SBC's Trunks Integrated Record Keeping System ("TIRKS") database. This HPC function and corresponding cost appears in several transport-related elements, thereby overstating the cost for this function. As AT&T witness Mr. Turner testified, the incremental time for this task is three

¹⁸ Under SBC's proposal, the FOG technician would travel to the central office three times to establish a single EEL: once for the DS1 Interoffice Dedicated Transport, once for the Central Office Multiplexing – DS1 to Voice, and once for the loops connected to the multiplexing, or three trips for one technician activity. The corrections AT&T witness Mr. Turner made to SBC's cost studies ensure that the dispatch cost is included in the loop cost only so that only one dispatch cost is assessed each time that a loop is connected to the multiplexer. This approach accurately recovers SBC's dispatch costs, whereas SBC's approach triple counts the travel cost.

minutes and it takes same time to assign the first DS1 increment of capacity with the multiplexer in TIRKS as it does to assign additional DS1 increments of capacity. (AT&T Ex. 3.0, pp. 39-40). Accordingly, AT&T witness Mr. Turner modified the additional time for the multiplexer TIRKS assignment to three minutes and made similar corrections to the Circuit Design Process.

Finally, Mr. Turner reduced SBC's assumed time for the Special Services Center (SCC) to conduct DS1 CKL testing to five minutes because, as Mr. Turner demonstrated, this testing that is not done sequentially. Rather, the technician sets up the test and then performs other activities while it is running. (AT&T Ex. 3.0, p. 48).

3. Occurrence probabilities

a. DIP and DOP Rates

Joint CLEC witnesses Ankum/Morrison testified that the dedicated inside plant ("DIP") and dedicated outside plant ("DOP") rates assumed by SBC are not forward-looking but -- at best -- based on the rates actually experienced in SBC's network. First, in a TELRIC network, there would be a higher percentage of Integrated Digital Loop Carrier ("IDLC") systems (a point with which even SBC agrees), which means that there should be a near 100% DIP rate for loops on IDLC since the loop facilities bypass the Main Distributing Frame ("MDF") and go directly into the switch at the DS1 level. This means that service can be activated electronically without the need to physically establish cross-connects on the MDF or run jumper cables. As such, DIP rates with IDLC will be virtually 100%. (Joint CLEC Ex. 1.0, p. 99).

Second, at any point in time, most of the facilities in SBC's network are working facilities that serve customers. They all represent DIP and DOP. Yet, SBC's NRC studies fail to reflect this. (Joint CLEC Ex. 1.0, p. 102).

Third, Joint CLECs noted that DIP and DOP rates used by SBC in its studies are generally unsupported. To the extent that SBC's DOP rates are supported at all, the documentation only tells the Commission how many spare facilities SBC has that are not cross-connected, which is irrelevant to the DOP rates to be used in a TELRIC study. SBC's method fails to adjust for all of the inefficiently-deployed and stranded pairs in SBC's network. The object of the exercise of determining relevant DOP rates is, instead, to predict *how often it is unnecessary* to dispatch a technician when a CLEC orders a loop (either stand-alone or as part of UNE-P) because the facilities are already cross-connected (*i.e.*, there is "dedicated outside plant," or DOP). Further, Joint CLECs asserted that this question is to be answered in a TELRIC setting. (Joint CLEC Ex. 1.0, pp. 101-02).

Ankum/Morrison recommended that the Commission reject SBC's proposed DIP and DOP rates as too low since there is no need to disconnect facilities when services are discontinued. As such, facilities will remain connected until new service is activated, either for SBC itself, or for CLECs, thus obviating the need to send technicians into the field to reestablish cross-connects and perform other labor-intensive tasks. (The issue of co-mingling of recurring and non-recurring costs is discussed elsewhere in this brief.)

Finally, Ankum/Morrison noted that the FCC's Wireline Competition Bureau weighed the same arguments on DIP/DOP rates in paragraph 587 of the *Virginia Arbitration Order* and arrived at a well-reasoned conclusion:

We find that AT&T/WorldCom's assumption of 100 percent DIP and DOP is reasonable. Not only is this a surer method of avoiding double recovery, but it also seems to conform to the retail practice of recovering these costs through recurring charges. In addition, it furthers the policy objective of minimizing barriers to entry. Verizon's critique of AT&T/WorldCom's assumption of 100 percent DIP and DOP misconstrues AT&T/WorldCom's model. As AT&T/WorldCom explained, the assumption of 100 percent DIP and DOP is a modeling convention that is designed to reflect that these costs are recovered in the recurring cost study, not an assumption that any real network would be built this way. This assumption does not prevent Verizon from recovering any costs because AT&T/WorldCom provide for recovery of these costs through ACFs, just like all other loop maintenance expenses.

Ankum/Morrison posited that all of the same findings would apply in the current proceeding. Consequently, Ankum/Morrison recommended that the Commission adopt the 100% DIP and DOP rate adopted by the FCC's Wireline Competition Bureau in the *Virginia Arbitration Order*. (Joint CLEC Ex. 1.1, p. 35).

AT&T witness Mr. Turner also testified that SBC's DIP and DOP assumptions are inaccurate. As he explained, with Dedicated Inside Plant, or "DIP", the wiring in the central office is already in place between the loop and the switch port, and SBC can receive and provision a service order electronically end-to-end without sending a technician to a frame to perform a cross-connect. Similarly, with Dedicated Outside Plant, or "DOP", the wiring in the outside plant environment is already in place, and SBC can receive and provision a service order electronically end-to-end without dispatching a technician into the outside plant environment. (AT&T Ex. 3.0, p. 58).

As Mr. Turner emphasized, the DIP and DOP processes allow for rapid activation or deactivation of services at end user locations without the need for physical disruption of the facility because physical connections remain in place and only a command from SBC's OSS to the network element is necessary to activate or deactivate the service. If a CLEC deactivates an unbundled element using only software commands, the nonrecurring disconnection costs are almost non-existent. SBC's current disconnect policy, like all efficient ILECs, adheres to this practice of DIP and DOP in order to provide immediate service activation to the next customer at that premise. (AT&T Ex. 3.0, p. 58).

Joint CLECs argued that SBC failed to develop its DIP and DOP percentages appropriately. Most of SBC's unbundled loop orders are for unbundled loops or for unbundled loop-port combinations that are for migrations of existing SBC customers to the CLECs' networks. In this scenario, it is undisputed that dedicated outside and inside wiring exist because the existing SBC customer's service is already wired and working. (AT&T Ex. 3.0, pp. 58-59). These working loops have a 100% DOP, yet, as Joint CLECs noted, SBC failed to account for those working loops in its proposed DIP and DOP percentages. To the contrary, as both Mr.

Turner and Staff point out, SBC's nonrecurring cost studies erroneously assume that all stand alone loops are new UNE POTS loops in calculating the DOP percentage. This leads to the obvious result – as Staff correctly describes – of SBC assuming that it must dispatch a technician to perform line connection activities even when there is a fully established and available loop facility from the end user premise to the central office. (Staff Initial Br., p. 167) Incredibly, Ms. Gomez-McKeon – SBC's DOP witness --- was unable to explain how the DOP percentages are applied in SBC's nonrecurring cost studies. (Staff Initial Br., p. 169; Tr. 1488) Joint CLECs pointed out that SBC has failed to demonstrate the reasonableness of its proposals, as it must. According to Mr. Turner's experience, these "already working" orders constitute approximately 90 percent (or more) of the orders CLECs place with SBC. In other words, the minimum DIP and DOP percentage appropriate to use in SBC's Unbundled Loop Cost Study is 90 percent even assuming nothing else is pre-wired in SBC's network, which even SBC contends is not the case. (AT&T Ex. 3.0, p. 59).

The remaining 10 percent of the loop orders are for new service. As Mr. Turner convincingly demonstrated, according to and even accepting SBC's own data, the appropriate DIP/DOP percentages are somewhere between 90 and 100 percent. AT&T's proposed values, which are within that range, are reasonable and consistent with the DIP and DOP levels adopted by other commissions. See, e.g., Order of the Public Service Commission of Wisconsin, March 22, 2002, *Investigation into Ameritech Wisconsin's Unbundled Network Elements*, Docket No. 6720-TI-161, p. 18 (adopting CLECs' recommendation, concluding "[i]t is reasonable to use an assumption of 95 percent Dedicated Inside Plant and Dedicated Outside Plant (DIP and DOP) with no field work necessary where DIP and DOP is applicable in developing forward-looking NRCs."). (AT&T Ex. 3.0, pp. 59-61; SBC Ex. 6.0, p. 10). Mr. Turner clarified that the above DIP and DOP recommendations are for simple loops and combinations. For complex loops and complex combinations, Mr. Turner appropriately assumed that 50 percent of the orders are for migrations of already working loops, thereby reducing the weighted average DIP and DOP percentages. (AT&T Ex. 3.0, p. 62).

Mr. Turner also recommended reducing the Work Group Occurrence Factor for the Digital Operations Group ("DOG") to 29.74 percent because SBC inappropriately assumed that fieldwork must be performed on all 4-Wire Analog Loops and that none of these loops are pre-wired and migrated as existing working service, which is not true. For those working loops, the DOP percentage 100%. For 4-Wire Analog Loops not already in service, Mr. Turner recommended a revised DOP percentage of 50 percent – that is, for all new loops, 50% will be pre-wired in the field and 50% will require a dispatch. For the remaining loops, Mr. Turner used information provided by SBC to develop a revised DOP percentage of 70.26 percent. (AT&T Ex. 3.0, p. 50).

As Mr. Turner also stressed, SBC assumption that no DS1 or DS3 Loops ever migrate from working service with SBC to the CLEC is completely unreasonable; in fact, SBC witness Ms. Gomez McKeon's surrebuttal testimony refutes this assumption by providing the percentages of time these loops require a dispatch, and the percentages of time they do not. (SBC Ex. 9.2, p. 5). Mr. Turner reasonably assumed that 50 percent of DS1 and DS3 Loop orders will be loop migrations. (AT&T Ex. 3.0, p. 75).

b. Adjustments Required to Occurrence Probabilities For All Provisioning Studies

AT&T witness Mr. Turner made a number of recommendations to adjust the occurrence probabilities used in SBC's studies.

As discussed above, Mr. Turner testified, that the activity times in SBC's provisioning nonrecurring cost studies significantly overstate the percentage of times loops will be cross connected at both an MDF and an IDF (assuming IDF costs are appropriate at all). See Attachment A to Joint CLECs' Initial Brief, an excerpt (Tab 6.3) from SBC's Unbundled Loop Cost Study, line 58, column G and line 59, column G.) The fact that SBC's provisioning studies significantly overstate these probabilities is overwhelmingly corroborated by the testimony of SBC's own network provisioning witness, Ms. Vivian Gomez-McKeon, who testified that, as far as she was aware, SBC's cost study *did not assume that every standalone loop is cross connected at both the IDF and MDF*. (Tr. 1481). Rather, she understandably thought the percentage was much lower. *Id.* Thus, Joint CLECs contended that SBC's cost study deviates from the expertise and understanding of its own provisioning witness.

As AT&T witness Mr. Turner testified, IDFs are not appropriate in TELRIC-compliant, forward-looking, efficient central offices. IDFs, employed in extremely old central offices as a holdover from the days when analog equipment sometimes required the use of multiple floors, introduce back-to-back manual cross-connects (in addition to the required MDF cross-connects) that are unnecessary and introduce additional points of failure in the circuit as well as additional costs that serve no effective function or purpose. (AT&T Ex. 3.0, pp. 35-36, 57).

To make matters worse, Mr. Turner emphasized, SBC's provisioning cost studies greatly overstate the percent of SBC's offices that have both an MDF and an IDF and are directly at odds with SBC's own internal information. Even assuming the use of an IDF is at all appropriate in a forward looking environment (which it is not), the percentage of offices in which SBC has IDFs (See AT&T Cross Ex. 62) is significantly smaller than its cost studies assume, thereby significantly overstating cross-connect costs. Even if the Commission does not accept Mr. Turner's TELRIC-based recommendation to assume 0.00 percent IDF presence in SBC's central offices, Joint CLECs argued that the percentage of IDF should not exceed the percentage of SBC central offices with IDFs. (AT&T Ex. 3.0, pp. 36-37).

Finally, Mr. Turner recommended reducing the Work Group Occurrence Factor for the Loop Assignment Center ("LAC") consistent with the lower fallout percentage SBC provided in discovery for this probability. (AT&T Ex. 3.0, pp. 37-38, 70).

c. Adjustments to EELs Occurrence Probabilities

Double Count of Cross Connects – As Mr. Turner explained in detail, SBC also double counted the cross-connects to which interoffice dedicated transport is connected in performing an EEL combination. For example, Mr. Turner demonstrated, when a CLEC purchases DS1 Interoffice Dedicated Transport, an SBC FOG technician must perform cross-connects on both ends of the DS1 Interoffice Dedicated Transport circuit. Because SBC's DS1 Loop Cost Study already includes these cross connect costs, SBC's inclusion of these same cross connect costs in

its nonrecurring charges for a DS1 Interoffice Dedicated Transport facility completely duplicates or double counts these cross-connect costs already included in the DS1 Loop Study. (AT&T Ex. 3.0, pp. 42-43). If the CLEC wants to purchase an analog-to-DS1 EEL configuration (*i.e.*, analog loops and DS1 transport), there are two cross connects – one connecting the transport at the DSX1 cross connect panel and the loop cross connect. (See AT&T Cross Ex. 46P) The cost for the DSX1 cross connect is included in the nonrecurring charge for the DS1 transport (Tr. 1464) and, as SBC witness Ms. Gomez-McKeon also acknowledged, the cost of the loop cross connect is included in the line connection charge. (Tr. 1470) As Mr. Turner explained, SBC also includes additional cross connect costs when the CLEC purchases multiplexing to dechannelize the DS1 to the analog, or DS0 level. Yet there is no additional cross connect activity at the multiplexer. As even SBC acknowledges, there are only two cross connects. (Tr. 1465-1470; 1505-1506). The cross connect costs included in the line connection charge and in the DS1 transport facility charge already cover all costs of both cross connects and there ought be no additional cross connect costs.

As an additional example, the DS1 Interoffice Dedicated Transport can also be connected to the DS1 side of multiplexing to dechannelize the signal to a voice signal. In SBC's EEL cost study, the Central Office Multiplexing – DS1 to Voice already includes the costs to cross connect the DS1 transport to the DS1 side of the multiplexer; but SBC's nonrecurring charges for DS1 transport includes these same cross connect costs. As SBC witness Ms. Gomez McKeon testified, only one cross connect is required to cross connect the transport to the DSX1 cross connect panel when the transport circuit is dechannelized via a multiplexer, yet SBC's cost studies include these costs twice. (Tr. 1468-1470; AT&T Cross Ex. 46). Simply put, SBC included the same cross connect costs in its proposed charges for elements that are routinely cross connected with one another despite the fact that only one cross connect occurs when these elements are cross connected. As AT&T witness Mr. Turner testified, these costs must be eliminated from the nonrecurring charges for one of the two elements being cross connected and the only appropriate, TELRIC-compliant approach is to eliminate the cross-connects cost from the Interoffice Dedicated Transport elements to avoid double counting the FOG costs when elements are cross-connected to one another. (AT&T Ex. 3.0, p. 43; AT&T Ex. 3.1, pp. 75-76) that is why Staff recommends that the Commission order that SBC refrain from assessing multiplexing charges in combination with orders for dedicated transport. (Staff Initial Br., p. 164)

Inappropriate Multiplexing Costs – As Mr. Turner explained, while SBC's EEL cost study assumes the SSC will test the multiplexing separately from its testing of the interoffice dedicated transport, the test does not operate in this way, nor does it make sense to do it that way. The testing is performed on the entire circuit, of which the multiplexing is a part; thus, contrary to SBC's assumption, multiplexing testing is not a separate task. Rather, the testing is done via the transport element that is connected to the multiplexing and the testing expense is already included in the transport element and must not also be reflected in the multiplexing element in order to avoid double counting. AT&T witness Turner recommended setting the SSC Work Group Occurrence Factor to 0.00 percent. (AT&T Ex. 3.0, p. 48). For the same reasons, Mr. Turner recommended reducing the Work Group Occurrence Factor for SSC Administrative Closeout time specific to multiplexing installation (because it does not exist) to 0.00 percent and the Work Group Occurrence Factor for SSC Screen Order time to multiplexing installation to 0.00 percent. (AT&T Ex. 3.0, pp. 49-49).

4. Fallout rates

The issue of fallout rates was discussed in detail in Section IV.B.5 above with respect to SBC's Service Order nonrecurring cost studies. That discussion is equally applicable to SBC's service Provisioning NRC Studies.

5. Disaggregation of Connect and Disconnect Charges

SBC combined the costs of connect activities with the cost of disconnect activities (assuming a 2 year location life). Ankum/Morrison explained that this is incorrect in that it inappropriately raises the upfront costs for CLECs and ignores that customers may remain with the CLEC for many years, if not decades, so that SBC never incurs the disconnect costs for which SBC seeks to charge CLECs. SBC should charge for disconnects only when they occur (as their costs are caused), rather than up front, by rolling disconnect charges into a single service connection charge when service is initiated. In general, there should be separate connect and disconnect charges. (Joint CLEC Ex. 1.0, p. 91).

Further, Joint CLECs argue that SBC's studies erroneously assume that *service* discontinuation requires a *facility* disconnect. Ankum/Morrison noted that there is no need for a technician to be dispatched at great cost for a service disconnect that can be postponed and performed when the technician needs to travel to that particular location for a service connection or other purpose. Furthermore, in many instances, there is no need to disconnect facilities at all, and it is in fact more desirable to leave facilities connected. (Joint CLEC Ex. 1.0, pp. 92-93). This argument also relates to the DIP and DOP issue.

As for the costs of connecting facilities, Joint CLECs asserted that these costs should not be recouped 100% from the CLECs. When it is desirable to leave certain facilities connected even after a CLEC requests a service disconnect, other CLECs and SBC itself may benefit from the "connect" activities. Thus, the costs of connecting facilities should be considered recurring costs and not non-recurring costs. (The issue of co-mingling recurring and non-recurring costs was discussed previously.)

Lastly, Joint CLECs noted that SBC's NRC cost studies ignore the fact that with IDLC and GR303 facilities, physical disconnect activities are unnecessary, and thus all such costs should be excluded from SBC's cost studies. (Joint CLEC Ex. 1.0, p. 93-94).

Ankum/Morrison's recommendations are consistent with Staff's proposed treatment and with the concept of cost causation, as well as with the treatment of these activities as recommended on a going-forward basis by this Commission in its comment on the FCC's TELRIC NPRM. (ICC TELRIC NPRM Comments, p. 82)

Joint CLECs agreed with Staff's assessment that SBC's assumption fails to account for the fact that the life of the transport portion of an EEL is likely to be much longer than the life of any of the individual loops it serves. Nonetheless, SBC assume two years for both. Moreover, SBC's two year assumption is directly contrary to its own imputation studies, which assumes a substantially longer life. (Tr. 189-190; MCI Cross Ex. 1, Tab 5.5) This is consistent with Staff's interim proposal until the first quarter of 2005, when SBC's billing systems can accommodate this disaggregation.

6. Other (including rate design issues)

See Joint CLECs' discussion of connect and disconnect activities in Sections IV.B.6 and IV.C.5 above.

AT&T witness Mr. Turner made a number of additional recommendations concerning the rate design for SBC's Loops and EELs Provisioning studies:

a. General Rate Design Issues

As Mr. Turner noted, SBC's provisioning cost studies raises several critical, overarching rate design issues. For example, while EELs are a combination of unbundled loops, interoffice dedicated transport and, in some cases, multiplexing and entrance facilities, SBC has assessed different costs (essentially defining new UNEs) depending upon whether the elements are to be used on a stand alone basis or as part of an EEL combination, thereby largely ignoring the UNE definitions and rates that exist in SBC's current tariffs. (AT&T Ex. 3.0, pp. 24-25). For example, SBC's wholesale tariff has two sections addressing interoffice dedicated transport. Section 12 – Unbundled Interoffice Transport and Section 20 – Enhanced Extended Link, defines the UNE as “Unbundled Interoffice Transport network elements provide transmission paths (also referred to as “facility”) to connect central office buildings such as: two Company central offices via existing facilities; or a requesting telecommunications carrier's designated central office and the Company central office via existing facilities.” ICC Tariff No. 20, Section 12, 1st Revised Sheet No. 3 (effective April 18, 1998).

Section 20 of SBC's proposed EEL tariff defines Unbundled Interoffice Transport as dedicated transport facilities between two Company central offices with one end terminating at collocation. The first represents general interoffice transport while the second represents SBC's proposed interoffice transport for EELs. As Mr. Turner explained, these two elements are architecturally and functionally identical, and the nonrecurring cost for these two elements should be the same. (AT&T Ex. 3.0, pp. 24-25). To the contrary, however, SBC's rate for stand alone (Section 12) DS3 Interoffice Dedicated Transport is \$1356.63 (AT&T Cross Ex. 40), yet its proposed nonrecurring cost for the exact same element in the EELs Section 20 of the tariff is \$342.98. While certainly a step in the right direction (albeit still overstated), Mr. Turner opined, the nonrecurring cost should not differ depending on the nature of its application. (AT&T Ex. 3.0, pp. 25-26).

To remedy this irrational disparity, according to Mr. Turner, once the Commission establishes a nonrecurring charge for any network element in this proceeding, it should expressly direct that this charge is the general charge for the element and not an application-specific charge. In this way, SBC will be unable (as it has attempted to do here) to establish new service-specific UNEs, thereby delaying CLECs' deployment of elements that are routinely combined by SBC but that may not happen exist as “services” that SBC currently packages and prices. In other words, a CLEC will be able to order a combination of elements consisting of elements that SBC has tariffed but that SBC has not specifically packaged as a tariffed combination and not be required to pay the exorbitant nonrecurring charges SBC currently tariffs for stand alone elements (i.e., dedicated transport) when, in fact, the nonrecurring charge is much less, as demonstrated by SBC's currently proposed nonrecurring charges for dedicated transport when

used as part of an EEL combination. (AT&T Ex. 3.0, pp. 25-27). AT&T witness Mr. Turner therefore recommended modifying SBC's EEL New Combinations Cost Study to make it consistent with the 2-Wire Analog Loop Connection, 2-Wire Digital Loop Connection costs and 4-Wire DS1 Digital Loop Connection costs resulting from SBC's Unbundled Loops Nonrecurring Cost Study (excluding design costs from both studies, as discussed above) such that those charges will apply to these loop types regardless of whether purchased on their own or as a part of an EEL. (AT&T Ex. 3.0, p. 31).

b. EEL Rate Design Issues

As Mr. Turner described, SBC's EEL Cost study defines new and unnecessarily restrictive UNEs such as interoffice transport elements known as "Interoffice Dedicated Transport Collocated" (assuming no entrance facility) and "Interoffice Dedicated Transport Non-Collocated" (assuming the CLEC requires the use of an entrance facility). (AT&T Ex. 3.0, p. 32). As Mr. Turner explained, SBC's newly defined rate elements are problematic because the Interoffice Dedicated Transport and Entrance Facilities rate elements already exist in SBC's tariffs, the CLEC already has access to the elements it needs, and there is no need for SBC to create new rate elements. (AT&T Ex. 3.0, p. 32).

Moreover, Mr. Turner explained, SBC's pre-determined combinations of interoffice transport and entrance facilities fail to encompass all of the arrangements a CLEC would want in an efficient network configuration. For example, while SBC assumes that a CLEC purchasing a DS1 Dedicated Transport Non-Collocated rate element also wants a DS1 Entrance Facility (AT&T Ex. 3.0, pp. 32-33), as AT&T witness Mr. Turner testified, this assumption is both nonsensical and thoroughly inefficient because the CLEC may want to bring a group of DS1 Interoffice Dedicated Transport circuits from various SBC wire centers within a metropolitan area to a single CLEC wire center and, rather than purchasing an equivalent number of DS1 Entrance Facilities, may want to purchase DS3 to DS1 Multiplexing to aggregate circuits from multiple SBC wire centers and purchase a single DS3 Entrance Facility (as opposed to 24 or 25 DS1 entrance facilities, as SBC's proposal assumes). While SBC's Interoffice Dedicated Transport tariff (Section 12) accommodates this scenario, the transport element definitions included in SBC's EEL cost study do not.

To remedy these unnecessary and restrictive definitions, Mr. Turner recommended eliminating SBC's "Interoffice Dedicated Transport Collocated" and "Interoffice Dedicated Transport Non-Collocated" rate element designations and replacing them with the rate element definitions that already exist in SBC's tariff and the charges that result from this proceeding for DS1 Interoffice Dedicated Transport, DS3 Interoffice Dedicated Transport, DS1 Entrance Facility, and DS3 Entrance Facility. With these four elements (plus multiplexing, which is already provided for in SBC's tariff), a CLEC can efficiently construct any combination of Interoffice Dedicated Transport and Entrance Facilities that will allow the CLEC to transport EELs back to the CLEC's wire center. (AT&T Ex. 3.0, pp. 33-34). Because SBC failed to develop Entrance Facility costs on a stand-alone basis, Mr. Turner, using information provided in SBC's cost studies, generated entrance facility costs and recommended that these same costs be used for stand alone entrance facilities and for entrance facilities used in conjunction with an EEL. (AT&T Ex. 3.0, p. 35).

Mr. Turner also recommended eliminating SBC's newly-created "4-Wire DS1 Digital Loop to DS1 Interoffice Dedicated Transport Collocated" rate element which, in reality, is nothing more than the combination of DS1 Interoffice Dedicated Transport and a DS1 Unbundled Loop and unnecessarily limits the CLEC to only one method (*i.e.*, DS1 Interoffice Dedicated Transport) of delivering the DS1 Unbundled Loop back to the wire center serving the CLEC's switch, and SBC's newly-created "4-Wire DS1 Digital Loop to DS1 Dedicated Transport Non-Collocated" rate element, which is nothing more than a combination of a DS1 Entrance Facility, DS1 Interoffice Dedicated Transport and a DS1 Unbundled Loop and which suffers the same flaws. (AT&T Ex. 3.0, pp. 34-35).

Finally, Mr. Turner recommended that the Commission make clear that the Clear Channel Capability nonrecurring charge only applies to rearrangements on existing DS1 circuits and does not apply when Clear Channel Capability is provided at the time the DS1 circuit is initially provisioned due to past confusion regarding the application of this element. (AT&T Ex. 3.0, p. 53).

c. Unbundled Loop Cost Study Rate Design Issues

As Mr. Turner explained, SBC's Unbundled Loops Cost Study calculates a Line Connection Charge that is a weighted average of the cost to provision a Stand-Alone Line Connection and the cost to provision a UNE-P New Line Connection. According to SBC witness Mr. Silver, SBC calculates this weighted average because the same work groups are involved in provisioning stand alone loops and new UNE-P loops. As AT&T witness Mr. Turner explained, however, SBC's proposal violates the fundamental principle of cost causation because the CLEC does not order a work group, it orders the provisioning of a network element. Mr. Silver's second reason -- that SBC's billing provisioning systems are not set up to differentiate between the two -- is equally invalid. As Mr. Turner overwhelmingly demonstrated, the costs for these two distinct scenarios are significantly different -- even in SBC's cost presentation. Because the two costs are so disparate, it is unreasonable and nonsensical to combine or average them. Instead, Mr. Turner recommended that SBC should create separate rate elements for the Line Connection Charge -- Stand Alone UNE POTS Loop and the Line Connection Charge -- UNE-P New Combo POTS Loop so that the CLEC bears that cost -- and only that cost -- that it actually causes in SBC's network. (AT&T Ex. 3.0, pp. 54-56) To accomplish this, Mr. Turner "undid" SBC's combining of these costs to produce two separate charges to comply with cost causation principles and TELRIC principles. (AT&T Ex. 3.0, p. 56).

As Mr. Turner explained, SBC's Unbundled Loop Cost Study also failed to reflect the cost differences between initial and additional loops by combining and weighting initial loop costs and additional loop costs into a single element. (AT&T Ex. 3.0, pp. 56-57). As Mr. Turner explained, not only does this completely sever any nexus between the number of loops the CLEC requests on a single order and the costs to provision those loops, but because SBC assumed an unreasonably low number of loops per order in calculating its weighted average (AT&T Ex. 3.2, pp. 8-9), the larger the number of "additional" loops on a CLEC order, the more the CLEC systematically and very significantly overpays loop connection costs to its extreme disadvantage. As Mr. Turner also testified, SBC readily has the capability to bill separately for initial and additional loops on a single order (AT&T Ex. 3.2, p. 9) and the only appropriate approach from a

TELRIC and cost causation standpoint is to separate the loop types into initial loop provisioning costs and additional loop provisioning costs.

Finally, AT&T witness Turner recommended that SBC's provisioning studies be modified to use the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. (AT&T Ex. 3.0, p. 53). Mr. Turner's recommended corrections are contained in (Revised) Attachment SET-2P. His proposed nonrecurring charges resulting from his restatement of the Unbundled Loops Cost Study are contained in Attachment SET-3. His proposed nonrecurring charges resulting from his modifications to the Enhanced Extended Loop (EEL) New Combinations Cost Study are contained in Attachment SET-5P (Revised).

D. Switch Port And Features Nonrecurring Cost Studies

1. Identification of tasks

See the discussion of validation and verification activities, log-in, sort, distribute and administrative close out times in Section IV. B.1 above.

2. Activity times

As discussed above with respect to others of SBC's NRC studies, those studies include activities that are not required or should not be required if SBC's studies assumed primarily automated processes and efficient and forward-looking technology. Joint CLECs noted that these assumptions would result in more forward-looking, reasonable fall out rates and, in turn, fewer required manual intensive and expensive activities. If the need for activities is eliminated, debates about activity times become superfluous.

AT&T witness Mr. Turner made a number of specific recommendations with respect to the activity times in SBC's switch port and features nonrecurring cost studies. For example, Mr. Turner expressed significant concern that SBC's proposed costs for all manual provisioning of complex Centrex Port Features in its Unbundled Centrex System Features Cost Study assume significantly varying provisioning times for the Lucent, Nortel, and Siemens switches. As Mr. Turner testified, this defies reality; there is no significant time difference in provisioning Centrex feature activations or common blocks between, for example, the Lucent 5ESS switch and the Nortel DMS switch. (AT&T Ex. 3.0, pp. 14-15). In fact, Mr. Turner noted, if the significant disparity SBC's cost study portrays actually existed, carriers would tend not to use the switches with greater provisioning times. These switch providers are direct and aggressive competitors of one another, however, and it is simply unrealistic to assume that one company will maintain a provisioning advantage over another on a long-term basis. (*Id.*) Nonetheless, SBC assumed that the Nortel DMS switch require over seven times as much time to provision a Centrex Common Block Establishment as does the Lucent 5ESS Switch. As Mr. Turner explained, in the long run TELRIC environment, all switches would be provisioned in the most efficient manner. The Indiana Commission recently agreed. Indiana Order, p. 116. AT&T witness Mr. Turner therefore remedied this error for the three switch types by using the shorter provisioning time of either the Lucent switch or Nortel switch, consistent with efficient and forward-looking cost principles, in SBC's Combination Unbundled Local Switching – Ports Cost Study (AT&T Ex. 3.0, p. 21) and SBC's Unbundled Custom Routing Cost Study. (AT&T Ex. 3.0, p. 23). Mr.

Turner's specific modifications are reflected in Attachment SET-2P (Revised) and his proposed nonrecurring charges for the Unbundled Centrex System Features Cost Study are contained in Attachment SET-4P (Revised).

As Mr. Turner also explained, SBC's Combination Unbundled Local Switching-Ports Cost Study also unreasonably assumed that DID ports are ordered as a single trunk in a single trunk group and, therefore, it costs the same to provision an additional Direct Inward Dial ("DID") port as it does an initial DID Port. As AT&T witness Mr. Turner acknowledged, while there are some unbundled switch port provisioning arrangements where the cost for an initial and an additional port are the same, DID ports are not one of those cases. The whole point of establishing a DID trunk *group* is to have multiple ports on the switch that can terminate calls to the same number or block of numbers. (AT&T Ex. 3.0, pp. 16-19). DID trunk ports are never ordered as a single trunk in the trunk group. (*Id.*)

As Mr. Turner explained, not only does SBC's cost study eliminate all benefits of ordering multiple trunk ports at once, as CLECs typically do, it is inconsistent with its rate structure in other jurisdictions, including Missouri, where SBC proposed separate nonrecurring charges for the first DID port and additional DID ports, with the additional ports being significantly less costly. (AT&T Ex. 3.0, p. 18). While, as Mr. Turner explained, installation of the initial port requires a significant amount of set-up work (i.e., about 30 minutes, a time with which SBC agrees), once the planning for the trunk group is complete, it takes very little time to activate additional ports/members in the trunk group. In fact, as Mr. Turner demonstrated, the information on each trunk is very similar and, customarily, only one piece of information must be changed to distinguish the trunks from one another. (AT&T Ex. 3.0, p. 17). Therefore, Mr. Turner assumed five minutes for implementation of the first trunk in the group and a 30 second per trunk replication process to provision the additional trunks. *Id.* Mr. Turner had the same concern with the addition or rearrangement of Integrated Services Digital Network Primary Rate Interface ("ISDN PRI") Channels, where SBC assumed that the cost for the initial PRI channel applies to every PRI channel when, in reality, the set-up time for the first channel need not be replicated for every additional channel. Mr. Turner therefore made the same revisions to SBC's proposed costs for ISDN PRI Channels to separately account for the costs of initial and additional ports. (AT&T Ex. 3.0, p. 18). These corrections and the times associated with them are found in Attachment SET-2P (Revised).

Mr. Turner also reduced the time in the Combination Unbundled Local Switching – Ports Cost Study for the translation process for DID Trunk Ports to reflect the use of efficient processes and trained technicians because SBC-provided information appears to assume the use on average of a fully trained technician and often struggling, inexperienced technician and a properly conducted TELRIC cost study requires the use of the time it takes an experienced technician to perform a task in developing the long *run* incremental cost for the function using efficient processes and technology. (AT&T Ex. 3.0, pp. 20-21) The specific adjustments are contained within Attachment SET-2P (Revised).

In addition, SBC arbitrarily and inappropriately assumed in developing the cost for the Centrex Attendant Line Port that its cost is a multiplier greater than the cost of a Basic Analog Line Port. There is absolutely no rational basis for this arbitrary assumption, and Mr. Turner recommended eliminating this wholly unsupported multiplier. (AT&T Ex. 3.0, p. 19).

Finally, Mr. Turner recommended reducing the time for disconnect tasks in SBC's Unbundled Local Switching - Ports Study such that the times for these tasks (e.g., preparation time for a Trunk Member in a 5ESS Trunk Port Translation) are the same as those SBC assumed in the connection process. (AT&T Ex. 3.0, p. 20; see Attachment SET-2P (Revised)).

3. Occurrence probabilities

To the extent that SBC's studies are required to assume primarily automated processes and efficient and forward-looking technology, occurrence probabilities do not come into play. As with activity times, if SBC's studies reflected appropriate forward-looking assumptions, that would result in more reasonable fall out rates and, in turn, fewer required expensive manual activities. Under those circumstances, if the need for activities is eliminated, debates about occurrence probabilities become significantly less contentious.

4. Fallout rates

See the discussion of fall out rates in Section IV.B.5 above relating to SBC's Service Order Nonrecurring Cost Studies. In addition, AT&T witness Mr. Turner noted that in its Combination Unbundled Local Switching – Ports Cost Study, SBC used a fallout percentage for the Recent Change Memory Administration Center ("RCMAC") that is based on embedded performance data. Mr. Turner recommended a forward-looking fallout percentage of two percent, and the Commission should adopt it. (AT&T Ex. 3.0, pp. 21-22).

5. Other (including rate design issues)

See the discussion of connect and disconnect activities in Sections IV.B.6 and IV. C.5 above. In addition, AT&T witness Mr. Turner made a number of specific recommendations regarding rate design and related issues for SBC's switch port and features nonrecurring cost studies.

Rate Design Issues for Unbundled Centrex System Features Cost Study -- As AT&T witness Mr. Turner testified, SBC unreasonably and unrealistically assumes that 100 percent of Centrex System feature activations fallout for manual processing, regardless of the feature being activated. (AT&T Ex. 3.0, pp. 9-10). As Mr. Turner explained, even SBC agrees this is not true. Specifically, Mr. Cunningham testified that "Line assigned features, whether they be against Centrex or POTS lines, do often utilize a flow through process." (SBC Ex. 18.0, p. 2)

Many features provisioned on Centrex Ports have the same flow through capability as those same features provisioned on basic line ports. Joint CLECs pointed out that Even according to SBC, many of the same features available with Basic Centrex Ports are also available with Basic Line Ports (e.g., Call Waiting). Mr. Turner explained that SBC's Unbundled Centrex System Features Cost Study fails to reflect and incorporate this electronic flow capability. (AT&T Ex. 3.0, pp. 10-11). Second, Mr. Turner explained, contrary to SBC's practice in other states, SBC's cost study failed to distinguish between simple features – which can be provisioned electronically – and complex features, which must be manually provisioned, thereby significantly overstating SBC's proposed nonrecurring charges. (AT&T Ex. 3.0, p. 11; AT&T Ex. 3.1, pp. 39-40)

Mr. Turner therefore recommended that the nonrecurring cost for all Centrex features that are listed in the tariff for which there is an equivalent feature listed for Basis Line Ports should be established assuming a high percentage of flow through and that SBC should also be required to identify all of the additional Centrex features that are capable of being provisioned without manual intervention, and the nonrecurring costs should reflect that electronic provisioning, as TELRIC principles require. (AT&T Ex. 3.0, pp. 11-12).

To reflect the above changes, Mr. Turner was able to revise SBC's Basic Line Port Cost Study, which identifies the cost for adding or changing a feature on a Basic Line Port. This cost study reflects the fallout cost when an SBC technician is required to provision a feature manually when there is an electronic OSS provisioning issue. Mr. Turner's revised charge should apply to feature activations for Basic Centrex Features and SBC's UNE tariff should differentiate between basic features and complex features so that the CLEC pays the appropriate nonrecurring charge for Centrex features. (AT&T Ex. 3.0, p. 12).

Inappropriate Combining of Connect and Disconnect Charges – As with all of its other cost studies, Mr. Turner explained that SBC's switching studies inappropriately combine the Connect and Disconnect nonrecurring costs into a single charge and, for all the reasons discussed at length above, these charges should be segregated. (AT&T Ex. 3.0, pp. 12-13). As Mr. Turner testified, this is particularly significant as far as the disconnection of port features are concerned because it is likely – not simply a possibility – that SBC will incur no costs at all to disconnect these Centrex port features. For example, when features are provisioned on a Centrex Line Port after it has been installed, under SBC's proposal, the CLEC pays the disconnect costs upfront. When the CLEC disconnects that Centrex Line Port, however, all the features are automatically deactivated; there are no additional incremental costs to disconnect the individual features when the line port itself is disconnected. The problem, as Mr. Turner convincingly demonstrated, is that under SBC's proposal the CLEC will have already paid disconnect costs upfront on a per feature basis.

As Mr. Turner further explained, SBC failed to prove that its proposal is consistent with cost causation principles. In fact, SBC witness Mr. Silver, who testified as to the reasonableness of SBC's proposal (SBC Ex. 3.2, p. 3), stated he had no idea whether incremental costs are incurred to disconnect the features when the port is disconnected. (Tr. 870). Separating the connect and disconnect costs, as the Joint CLECs recommended, allows the CLEC to pay the cost if it causes a cost to be incurred (such as disconnecting a feature but not disconnecting the entire switch port) but does not require the CLEC to pay a cost if it does not cause SBC to perform any work. (AT&T Ex. 3.0, pp. 13-14). AT&T witness Mr. Turner made this same recommendation for SBC's Combination Unbundled Local Switching – Ports Cost Study (AT&T Ex. 3.0, p. 22) and SBC's Unbundled Custom Routing Cost Study. (AT&T Ex. 3.0, p. 23).

Miscellaneous – AT&T witness Mr. Turner also modified the inflation factor and labor rates in these NRC studies consistent with the testimony of AT&T witness Mr. Robert Flappan. Mr. Turner's proposed nonrecurring charges for the Unbundled Centrex System Features Cost Study, the Combination Unbundled Local Switching – Ports Cost Study and the Unbundled Custom Routing Cost Study are contained in Attachment SET-4 (Revised). The changes he recommended are reflected in Attachment SET-2P (Revised).

E. Miscellaneous

1. Special Access to UNE Conversion Nonrecurring Cost Study

Joint CLECs contended that the charge for Special Access to EEL conversions should be low and reflect only a simple record change. They argued that SBC has inappropriately inflated these charges to well over a thousand dollars. The main cause, in addition to the issues raised above, is the expensive practice of *re-tagging*, which should be eliminated. Re-tagging is an archaic paper-based inventory process, and is unnecessary. All facilities are coded and should be inventoried in electronic systems. Further, re-tagging is not systematic and has no practical value for CLECs. The process and method for tagging is determined at the local garage level. Since CLEC technicians cannot possibly be familiar with all the tagging procedures at SBC's garage level, they have no use for the tags. (Joint CLEC Ex. 1.0, pp. 151-154). Moreover, re-tagging is discriminatory and too clearly identifies the CLECs' circuits. Accordingly, CLECs urged that all circuits should be treated with equal attention and care by SBC's technicians. (Joint CLEC Ex. 1.0, pp. 154-57).

It appears as though SBC may have relented on the issue of re-tagging. To make sure that there is no confusion, Joint CLECs posited that the Commission should explicitly reject all costs associated with re-tagging and direct that those costs be eliminated from the Special Access to EEL Conversion NRC study.

In addition, AT&T witness Mr. Turner made a number of specific recommendations regarding SBC's SA2UNE Cost Study. He explained that because the conversion of Special Access arrangements to UNE combinations is primarily an administrative function, SBC's assumed times for the HPC to convert a DS3 circuit and to convert the subtending DS1 circuits are significantly overstated. AT&T witness Mr. Turner's review of the tasks the HPC performs for a new DS3 that is provisioned in the Unbundled Loop Cost Study reveals that the only function in that Study that even possibly relates to a SA2UNE conversion is the "Corrective Action SOAC/SORD" process. All of the other provisioning functions relate to the design and assignment of facilities to turn up the circuit. There is no need to perform those functions in a SA2UNE conversion, of course, since the circuits are already working.

Joint CLECs asserted that SBC should not be reimbursed for selecting a wasteful, time-consuming procedure that is guaranteed to cause unnecessary costs. They noted that SBC causes its own problems by insisting on categorizing a special access to UNE conversion as a two-step process, requiring disconnection of a line and reconnection of a line for something when nothing is physically disconnected or reconnected, but is merely a billing record change. SBC has apparently installed elaborate gerrymandered procedures requiring manual intervention to ensure that SBC personnel do not actually disconnect a line or reconnect facilities. In the words of Staff witness Dr. Zolnierek, "the so-called Design & Coordination related activities were activities performed by the physical provisioning group to ensure that these groups do not, in fact, do any work." (Staff Ex. 7.0, p. 27) The proposed costs to ensure that personnel do not do any work are astonishing.

In addition, processes SBC identifies for Special Access to UNE conversions are unnecessary because these circuits are being converted from special access to UNEs and, by

definition, are already working circuits. While Mr. Christensen contended that “the fact that the circuits are already working does not have an impact on the tasks performed by the LSC” (SBC Ex. 10.1, p. 13), it must have an impact. If the circuits are already working, it is wholly illogical that the first task SBC Illinois must perform is to log into the “CABS system to verify that the circuit is a working circuit.” The other checking and validation steps SBC Illinois incorporates into its process are also wholly unnecessary. Mr. Turner therefore recommended using this function as a substitute for the unsubstantiated times SBC includes in its SA2UNE cost study in each of the places in the SA2UNE Cost Study where HPC functions occur. (AT&T Ex. 3.0, pp. 80-81). Joint CLECs stated that the two minute time Mr. Turner recommended (two hours across all of the circuits in a single project) is a reasonable time estimate for an efficient, forward-looking process. (AT&T Ex. 3.1, p. 32)

Moreover, Mr. Turner testified that some of the values in SBC’s SA2UNE Cost Study do not properly reflect the task times and probabilities of occurrence SBC included in its supporting documentation and, in some instances, failed to properly link these worksheets together in the cost study. AT&T witness Mr. Turner highlighted these errors in blue in the electronic version of the cost study filed by SBC and recommended that SBC be ordered to correct these errors. (AT&T Ex. 3.0, p. 82).

Mr. Turner also modified the probability of occurrence (or fallout) for the SSC to make it consistent with the probability of occurrence (or fallout) for the HPC function and consistent with what AT&T witness Mr. Turner has generally seen as the fallout percentage for complex UNE elements. The SSC functions are just as eligible for flow-through as the functions the HPC performs. (See AT&T Ex. 3.0, Revised Attachment SET-2; AT&T Ex. 3.0, pp. 82-83).

Finally, AT&T witness Mr. Turner also recommended modifying the SA2UNE Cost Study to incorporate the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. Mr. Turner’s proposed nonrecurring charges from the SA2UNE Loop and Transport Conversion Cost Study are contained in Attachment SET-6P.

2. ULS Billing Establishment

AT&T witness Turner recommended revising this cost study, like all of SBC’s other nonrecurring cost studies, to incorporate the inflation rate and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. AT&T witness Mr. Turner’s proposed charges for SBC’s Billing Establishment Cost study are contained in Attachment SET-4P (Revised). (AT&T Ex. 3.0, pp. 8-9)

F. Labor Rates

AT&T witness Mr. Flappan testified that economists look at labor as merely one of the three kinds of inputs that go into production of services. From a cost study perspective, the same disciplined approach to most efficient costing should be applied to labor services as is applied to SBC’s capital structure, depreciation rates, expense factors, fill factors and other investments and expenses. (AT&T Ex. 4.0, pp. 9-10.) In other words, labor rates should be TELRIC compliant. He further testified that such rates labor rates would represent the cost of labor in an open competitive market. Such rates would not be based on embedded costs of the incumbent local

exchange carrier, but rather on costs that would prevail if there were effective competition pervasive throughout the industry. In the long run, which would represent an environment where vigorous competition exists in SBC's currently monopolistic markets, SBC's labor expenses would become aligned with market levels. Mr. Flappan's testimony proposed the use of those normalized labor rates in SBC's cost studies, consistent with TELRIC methodology and principles. (AT&T Ex. 4.0, p. 8.)

Joint CLECs noted that SBC's labor rates, on the other hand, are based on embedded accounting data from 1999 and are not consistent with TELRIC. Mr. Flappan testified that SBC's labor costs (particularly as calculated by SBC) are supra-competitive and would not be sustainable in a truly competitive environment. He stated that TELRIC studies must reflect the scorched node costs that would be incurred by a new entrant, and not embedded costs resulting from 50 years of labor negotiations. The order in this docket will, of course, be focused only on setting UNE prices and will not have a direct impact on the wages and benefits SBC provides its employees. (AT&T Ex. 4.1, pp. 26-29.)

Additionally, Mr. Flappan testified that SBC's labor rates are largely the output of a "black box", with no specific instructions, methods and procedures or guidelines as to what data should be reviewed and/or included in the rate development process. This failure to have a documented process makes it nearly impossible for the other parties or the Commission to fully and completely review whether the SBC labor rates are indeed TELRIC compliant. Joint CLECs noted that in contrast, AT&T's proposed labor rates are presented in a single file with all the source data, assumptions, and calculations clearly displayed. (AT&T Ex. 4.1, pp. 20-22.)

Mr. Flappan's proposed that the Commission start with the base wage and salary figures given by SBC. He derived an overall benefit factor using Bureau of Labor Statistics data, specifically the ECEC study for Communications Public Utilities, "SIC 48." This data reflects germane industry averages for comprehensive benefits, and comprises basic wages that are reasonable comparable to those proposed by SBC in this docket. Indeed, use of this data is conservative: securities markets have risen, resulting in huge gains in the SBC pension funds, taking significant pressure off of SBC's benefits costs. (AT&T Ex. 4.1, pp. 14-25.) Using this data Mr. Flappan derived an overall benefit factor of .67; dividing the SBC wage and salary figures by .67 thus produced a loaded labor rate, including benefits.

With respect to SBC's reliance on Hewitt Associates studies in 2001 and more recently, Mr. Flappan testified that if those studies actually represented costs (as opposed to benefit design), they would support the conclusion that SBC Illinois' benefit loading is in fact inordinately high and must be rejected. (Joint CLEC Initial Br., p. 320) Moreover, the more recent Hewitt study similarly shows that SBC's proposed labor rates do not reflect anything approaching efficient costs. Mr. Flappan testified that if SBC's benefit costs were forward looking, they should not exceed those costs it is currently realizing for its "New Hires" managers (defined in the Hewitt study as those hired after August 1997); instead, SBC's labor rates reflect health care loading loadings for management that are significantly in excess of the "New Hires" group. Moreover, SBC's health care costs for non-management workers substantially exceed those for the Midwest Bargaining Group as reported by Hewitt. The same conclusions hold when pension costs are included. Joint CLECs contended that in short, SBC's claimed costs are far in excess of forward-looking efficient benefits costs.

With respect to SBC's assertion that the Commission should use embedded benefit data, which includes existing benefit levels for non-management employees reflecting decades of experience under collective bargaining, without adjustment, Mr. Flappan testified that labor rates are a large majority of the cost of operating a telephone network, and a new entrant would place a great deal of emphasis on establishing efficient labor costs. He further testified that there is currently a surplus of workers with telecommunications experience in Illinois and in the U.S. This abundance of supply puts downward pressure on labor costs. SBC's President of Operations has publicly stated that cost control is a continuous process. Joint CLECs noted that this certainly applies to SBC's largest cost of operations, and this continuous process must be reflected in the labor rates the Commission adopts here. Joint CLECs stated that adopting TELRIC labor rates in setting UNEs will send the proper economic signals to SBC and to the CLECs. The end result will be more competition, better quality and lower prices for Illinois businesses and consumers. (AT&T Ex. 4.1, pp. 36-41.)

Mr. Flappan also eliminated SBC's "break time" adjustment and instead applied a 95% adjustment factor to the labor rate (including benefits) to account for 5% non-productive time. This adjustment is to reflect the fact that employees will essentially be idle 5% of the time, for all of the reasons that employees are idle during the work day. Unlike SBC's "break time" adjustment, Mr. Flappan's productivity adjustment applies to all employees – management as well as non-management. Joint CLECs stated that Mr. Flappan's method, again, reflects how an efficient company would operate on a forward-looking basis. (Joint CLEC Initial Br., pp. 310-311)

Next, Mr. Flappan applied a "management hours" adjustment to recognize that managers normally work more than 40 hours per week. In response to SBC's contention that its calculations already assume that employees work more than 44 hours per week, Mr. Flappan testified that SBC uses (and it does not dispute using) a denominator of 2080 hours (40 hours times 52 weeks) at the initial step in calculating an hourly wage figure, but that it subsequently makes an adjustment for "paid absences," which include vacation, holidays and paid sick days. Thus, SBC would be double counting for paid absence costs – once through the paid absence factor and again by the inclusion of these costs in the basic wage calculation – if its methodology were followed. Moreover, in using 2080 hours in the calculation of management average wage per hour, SBC failed to recognize that managers in fact normally work more than 40 hours per week – which SBC has not disputed. Joint CLECs stated that Mr. Flappan's adjustment accounts for this fact. Based on BLS data showing that management employees in a broad range of relevant job categories worked an average of 44.2 hours per week in 2001, Mr. Flappan concluded that SBC's wage rates were overstated by 10.5%, and he applied a factor of .9050 (40/44.2) to account for this overstatement. (Joint CLEC Initial Br., pp. 322-24)

Instead of the support asset factors developed by SBC, Mr. Flappan applied the support asset factors developed by Joint CLEC witnesses Mr. Starkey and Mr. Fischer. (Joint CLEC Initial Br., pp. 324-25) In his Surrebuttal Testimony, Mr. Flappan agreed with Staff that Support Assets should not be loaded into labor rates. (*Id.*, p. 325) He then proceeded to apply adjusted clerical and support amounts described in his testimony as well as SBC's Support and Supervision – Other adjustment. (*Id.*, pp. 325-27)

Mr. Flappan testified that SBC's proposed "inflation factor" (and a wage adjustment factor) should be excluded in calculating forward-looking labor rates, because SBC failed to take into account the offsetting gains in productivity over time. He showed that productivity gains since 1996 have outpaced wage increases in the telecommunications sector by an average of 3.8% per year. (AT&T Ex. 4.0, pp. 21-22.) To increase wage expense for inflation without taking into account productivity gains would ignore the fact that real labor costs have been declining in recent years because of these strong productivity gains. At the same time, Mr. Flappan testified that in the event the Commission adopts the productivity adjustments recommended by Joint CLECs, then an inflation adjustment factor of between 2% and 4% would be appropriate. (AT&T Ex. 4.1, p. 5). Mr. Flappan's ultimate recommendation was thus that either both inflation and productivity adjustments should be made, or neither. Mr. Flappan's rebuttal testimony provided updated information on productivity in the wired telecommunications sector. (AT&T Ex. 4.1, pp. 1-5.)

Joint CLECs contended that normalizing SBC's fully loaded labor rates to bring them into compliance with TELRIC, using the adjustments and procedures recommended by Mr. Flappan, results in a mean reduction of 20%, a median reduction of 19% and a range of reductions from 3% to 32%. They emphasized that Mr. Flappan made no changes to the base wages and salaries used by SBC. Rather, all the adjustments he made were to the loading costs added on SBC to its basic wages and salaries. Joint CLECs concluded that SBC's asserted costs for labor services are not TELRIC-compliant, and that the conservative adjustments Mr. Flappan proposed are necessary to normalize the labor costs and bring them into compliance with the TELRIC methodology as mandated by the FCC's *Local Competition Order*. (AT&T Ex. 4.0, pp. 12-48; AT&T Ex. 4.2, pp. 1-6.)

V. SHARED AND COMMON FACTORS

Summary of Recommendations

Joint CLECs' proposed adjustments to SBC's proposed Shared and Common Cost Factors and Annual Charge Factors, as detailed in Sections V and VI of its Initial Brief and its Reply Brief are summarized as follows:

Overall recommendations for calculating the common cost factor, the shared cost factor and the Annual Charge Factors: Joint CLECs contended that SBC should be required to remove all non-regulated data and TBO expense from its shared and common cost calculations and from its Annual Charge Factor calculations. They further agreed that SBC should be prohibited from applying an inflation factor but, to the extent the Commission allows SBC to do so, it should apply the inflation factor of 3.936% based on the PPI in lieu of SBC's CPI-W-based inflation factor. If an inflation factor is applied, the Commission should require SBC to apply an offsetting productivity adjustment of 8.804%. This results in a net productivity increase of 4.868%.

Common costs – Joint CLECs contended that SBC should also be required to make the following additional adjustments to its common cost numerator: (1) begin with the 2001 year end ARMIS balances in Accounts 6711, 6712, 6721, 6722, 6723, 6724, 6725, 6726, 6727 and 6728; (2) adjust the 2001 year end ARMIS balance in Account 6711 to correct for SBC's accounting error (*see* Adjustment 7 on AT&T Cross Ex. 15P); (3) remove all support asset costs from SBC's labor rates, nonrecurring charges and ACFs and add all support asset costs to the common cost numerator; to accomplish this, SBC should add the amount it excluded from Account 6724 (*see* Adjustment 2 on AT&T Cross Ex. 15P) back into Account 6724; (4) remove OSS testing expense, Tier 1 remedy payments and Digital Divide payments from Account 6728, as recommended by Staff (*see* Adjustments 4, 5 and 6 on AT&T Cross Ex. 15P); (5) remove all but SBC's average net pension settlement gain from 1987-2001; (6) reduce the remaining amounts in all accounts by the Commission-approved wholesale discount to remove retail-related expenses; (7) reduce SBC's common cost numerator by the amount proposed by the Joint CLECs to account for merger savings; and (8) adjust the ad valorem tax factor to restate the book investment to current cost in the denominator of the ad valorem tax factor.

Joint CLECs posited that in calculating its common cost denominator, SBC should be required to use the year end 2001 ARMIS booked amounts for its Total Plant in Service and Total Operating Expenses, reversing its so-called "forward looking adjustments." They argued that these book balances must then be brought to current replacement cost using SBC's Current Cost-to-Book Cost, or CC/BC, ratios.

Shared costs – Joint CLECs contended that in calculating the "wholesale uncollectible" component of its shared cost numerator, SBC should be required to substitute the amount it has included with the average amount of revenue write-offs SBC actually recorded from 1998-2003, thereby reflecting the bad debt losses SBC actually incurred over that six year period and should be required to remove all advertising expenses from Account 6613. They also argued that SBC should then allocate the UNE-specific marketing costs that result from multiplying the total company marketing expense in Accounts 6611 and 6612 by the percentage of UNE revenues to

total company revenues. Because the uncollectible component of the numerator represents an average of SBC's actual uncollectible revenue and the marketing component is made UNE-specific using a revenue-based mechanism, Joint CLECs argued that SBC's UNE revenues for test year 2001 should be used as the shared cost denominator.

ACFs – Joint CLECs contended that in calculating its expense factors, SBC should be required to eliminate/deactivate its maintenance expense factor and other expense factor utilization adjustments in calculating the maintenance and other expense components of its ACFs. They further argued that SBC's maintenance expense component should also be adjusted to increase the Service Order Activity Adjustment as recommended by the Joint CLECs. In calculating its ad valorem tax factor, Joint CLECs posited that SBC should restate its book investment to current cost in the denominator.

In calculating its capital cost factors, SBC should be required to use the cost of capital recommendations of AT&T/MCI witness Ms. Murray and the economic lives and future net salvage values recommended by AT&T/MCI witness Mr. Majoros.

In calculating its investment factors, they argued that SBC should be ordered to remove all building and land investment leased to collocating carriers and non-affiliated carriers and to revise its EF&I with Land, Building and Power factors consistent with the capital cost and expense factor adjustments recommended above. They contended that SBC should also be ordered to remove any specifically-identified MDF investment to avoid double counting.

Joint CLECs argued that in calculating its support asset factors, SBC should be required to correct the data entry errors identified by the Joint CLECs¹⁹ and apply the cost of capital recommendations of AT&T/MCI witness Ms. Murray and the economic lives and future net salvage values of AT&T/MCI witness Mr. Majoros. They contended that SBC should be required to calculate the support asset costs for its Illinois operations only to facilitate the transfer of these costs to the common cost factor calculation, which is based upon Illinois-specific information.

A. Issues Common to Shared and Common Factors Development

1. Use of New Methodology Generally

Joint CLECs noted that Messrs. Starkey and Fischer describe three categories that define the entirety of a firm's economic cost: (1) direct costs; (2) shared costs; and (3) common costs. Direct costs measure the incremental resources that must be expended to produce a given product. Shared costs (or "joint costs") are those costs not directly attributable to any single product, but which are caused by the production of a group of products or services. Common costs are the costs that remain after having appropriately and rigorously identified both direct and shared costs. (AT&T/Joint CLEC Ex. 1.0, pp. 6-7)

Joint CLECs pointed out that according to the FCC, SBC is allowed to recover only those common costs it can prove would be incurred by a firm operating efficiently consistent with the

¹⁹SBC has agreed to correct these errors.

FCC's TELRIC rules. Only forward-looking common costs, and not historical costs, are recoverable. According to the FCC's *Local Competition Order*, "a properly conducted TELRIC methodology will attribute costs to specific elements to the greatest possible extent, which will reduce the common costs."²⁰ Joint CLECs contend that because SBC controls all information necessary to allocate its underlying costs in a reasonable manner, the FCC explicitly required that ILECs bear the entire burden to "...prove the specific nature and magnitude of these forward-looking common costs."²¹ (AT&T/Joint CLEC Ex. 1.0, pp. 8-9)

As the Joint CLECs explained, in general terms, SBC recommends that it be allowed to recover a pool of expenses it identifies as common costs (as well as a separate pool of shared costs), through a fixed percentage markup (or "fixed allocator") to be applied to the direct costs of each individual UNE it sells. They stated that at a high level, SBC's common cost calculation develops a ratio of expenses it identifies as common costs, compared to expenses it identifies as total direct costs. (Joint CLEC Ex. 1.0, pp. 10-11) They further stated that SBC's methodology necessarily assumes that while common costs cannot be attributed directly to any given unit of output or to any product or service (and are not, therefore, direct or shared), common costs will vary in relation to the total direct costs of the firm as a whole. (Joint CLEC Ex. 1.0, p. 11)

Specifically, Joint CLECs noted that SBC develops its "total common cost" numerator by using the 2001 year end book balances of its Series 67XX accounts as reported to ARMIS and makes a handful of adjustments to those balances, the majority of which increase SBC's common cost pool. (AT&T/Joint CLEC Ex. 1.0, pp. 11-12) As SBC witness Mr. Barch acknowledged on cross examination, SBC's "forward looking" adjustments to its common cost numerator had the effect of more than doubling the booked ARMIS expenses that SBC used as a starting point. (AT&T Cross Ex. 15P, page 1; Tr. 410-411)

Joint CLECs pointed out that SBC relied on a different method to calculate its common cost denominator. Instead of relying upon booked Total Plant in Service ("TPIS") and Total Operating Expense ("TOE") expenses from a timeframe consistent with its common cost numerator, SBC undertakes a rather complicated (and error ridden) attempt to estimate "forward-looking" TPIS and TOE, allegedly using SBC's estimated TELRIC costs for certain network elements, multiplied by demand estimates for products that rely upon those network elements. Joint CLECs contended that unlike its "forward looking" adjustments to the common cost numerator, SBC's "forward looking" adjustments to the common cost denominator significantly reduced the 2001 ARMIS book expenses in the common cost denominator, which substantially increased the ultimate common cost allocator. (AT&T/Joint CLEC Ex. 1.0, pp. 12-15; See AT&T Cross Ex. 15P, p. 2)

The Joint CLECs testified at length about the serious concerns they have with the way SBC performed its common cost study: (i) by calculating its common cost numerator based solely upon embedded, historical data, and its direct cost denominator using a contrived estimate of "forward-looking" direct costs, SBC's analysis is inherently flawed; it must either rely upon a

²⁰*Local Competition Order*, ¶ 695.

²¹*Id.*

comparison of a forward-looking numerator and denominator, or a booked numerator and denominator to maintain a proper relationship between common costs (numerator) and direct costs (denominator) (AT&T/Joint CLEC Ex. 1.0, p. 15); (ii) by simply using the unadjusted balances from its series 67XX accounts as its numerator, SBC failed to determine whether some portion of this enormous pool of expenses can be directly attributed to certain products/services (i.e., some portion are *direct costs*), whether some portion can be attributed to groups of products/services (i.e., some portion are *shared costs*), or whether some portion of these expenses are not appropriately recovered from its competitors as previously determined by the Commission (e.g., charitable contributions, legislative and legal expenses directed solely at enhancing shareholder value, marketing campaigns directly aimed at besmirching its competitors, etc.)²² (AT&T/Joint CLEC Ex. 1.0, pp. 15-16), an adjustment even SBC's own economist, Dr. Aron, made and recognizes as necessary to remove retail-related expenses from ARMIS data. (Tr. 281-282; AT&T/Joint CLEC Ex. 1.0, pp. 15-16); (iii) SBC improperly uses regulated and non-regulated data in calculating both its common cost numerator and its common cost denominator when, in reality, the common cost ratio will be applied exclusively to regulated products/services; therefore, data specific to its regulated operations provides a far better methodological basis. (AT&T/Joint CLEC Ex. 1.0, p. 16); (iv) SBC improperly includes in its common cost numerator an amortized portion of the Transitional Benefit Obligation ("TBO"), which is a "catch up" or "retroactive" obligation, which is not a forward-looking expense but is the result of an accounting convention which requires SBC to recover one time TBO adjustments through its regulated rates over a number of years for employee years of service prior to 1991. (AT&T/Joint CLEC Ex. 1.2P, pp. 31-32; Tr. 429); (v) SBC inappropriately removed its entire pension settlement credit for 2001 from its common cost numerator, despite the fact that SBC received pension settlement credits every year from 1984-2001. (AT&T/Joint CLEC Ex. 1.0, pp. 16-17); (vi) SBC's shared and common cost calculations fail to account for savings the combined SBC/Ameritech operation will experience as a result of its merger, despite the Commission's directive that such merger savings be enjoyed by CLECs via a reduction to shared and common costs.²³ (AT&T/Joint CLEC Ex. 1.0, pp. 17-18); and (vii) while SBC grosses up its common cost pool by an inflation factor, SBC fails to recognize that its employees generating the majority of those common expenses will become more productive over that same timeframe, thereby offsetting some portion of (or even overcoming completely) the inflation effects of rising prices, by applying an offsetting productivity factor. (AT&T/Joint CLEC Ex. 1.0, p. 18)

Joint CLECs noted that SBC calculates its shared cost allocator by dividing both its "wholesale marketing cost" and "Wholesale Uncollectible Cost" by "Wholesale Direct Cost." They argued that the Wholesale Direct Cost SBC uses in its shared cost denominator is a portion

²²TELRIC I Order, p. 51.

²³*Joint Application for approval of the reorganization of Illinois Bell Telephone Company d/b/a Ameritech Illinois, and the reorganization of Ameritech Illinois Metro, Inc. in accordance with Section 7-204 of the Public Utilities Act and for all other appropriate relief*, Docket No. 98-0555, Order released September 23, 1999 (hereafter "*SBC Merger Order*"). See also *Interim Order*, Docket Nos. 98-0252, 98-0335 consolidated and 00-0764, released August 13, 2002, page 24 (hereafter "*SBC Merger Savings Order*").

of the direct cost denominator used in SBC's common cost calculation and, as such, SBC's shared cost denominator suffers from the same flaws inherent in its common cost denominator.

To calculate its wholesale marketing costs, Joint CLECs noted that SBC calculates the total company marketing expense by combining its booked expenses from accounts 6611 (*Product Management*), 6612 (*Sales*), and 6613 (*Marketing*), and then identifies that portion attributable to "Ameritech Services, Inc." and "SBC Operations" as its "wholesale marketing costs." They stated that SBC divides the wholesale marketing costs by the "wholesale direct cost" denominator to arrive at a wholesale marketing percentage. (AT&T/Joint CLEC Ex. 1.0, p. 70)

As the Joint CLECs testified, their primary concern – and one that applies equally to the "wholesale uncollectible cost" component of SBC's shared cost analysis – is that SBC has too broadly defined the universe of "wholesale services" it uses to attribute shared costs to UNEs by grouping all of its "wholesale" services, including switched and special access, compensation with independent exchange carriers, services to payphone providers, etc., into a single bucket, of which UNEs are a very small part. SBC then attributes the expenses associated with all of these "wholesale" services as shared costs, a portion of which is to be recovered from UNEs. Joint CLECs argued that many of these "wholesale" services are unlikely to generate costs that have any bearing on, and bear little correlation to, UNE-related costs. For example, nearly half of SBC's shared cost numerator is comprised of "wholesale" sales and product advertising expenses, yet SBC acknowledges that it did not advertise UNEs in 2001, the test year for SBC's shared and common cost study. (AT&T/Joint CLEC Ex. 1.0, pp. 71-73) As the Joint CLECs explained, advertising expenses related to resale and access services are not representative of UNE advertising and it is not reasonable to attribute these types of costs to SBC's UNE products via the shared cost allocator. (AT&T/Joint CLEC Ex. 1.0, pp. 73-74)

According to Messrs. Starkey and Fischer, though SBC's calculation of "wholesale uncollectible cost" represents the largest single component of its shared and common cost fixed allocator, SBC's support for the amount of wholesale uncollectible expense is little more than a hard coded value in its shared cost study identifying a total amount of uncollectibles specific to "ALDIS and Special Markets." (AT&T/Joint CLEC Ex. 1.0, pp. 76-78) They claimed that similar to its wholesale marketing costs, SBC's analysis attributes expenses to UNEs that are more appropriately allocated directly to other wholesale products, which are, again, allocated to a single wholesale bucket despite the fact that many of these "wholesale services" have little relationship to UNEs. In addition, the Joint CLECs pointed out, SBC itself acknowledges that 2001 was an anomalous year, representing the largest uncollectible balance SBC has experienced in the recent past (perhaps ever). In fact, SBC's own reported uncollectibles for its "wholesale services" in 2002 are 26% less than that booked in 2001, even though its revenue associated with those products increased during that same time period and, from 2002 to 2003, SBC's wholesale uncollectibles declined by 81%. (AT&T/Joint CLEC Ex. 1.0, p. 78; AT&T/Joint CLEC Ex. 1.2P, p. 53; Tr. 360-361, 457-458)

Finally, to identify "wholesale uncollectible" expense, SBC uses its year-end balance in account 5301, which tracks only those revenues that were originally written off and does not capture any portion of those write-offs that were eventually collected. As the Joint CLECs aptly noted, SBC acknowledged in discovery that the amount that was actually "written off" is far

smaller than the amount originally booked to Account 5301 and used by SBC in its analysis (i.e., SBC appears to have collected a large portion of the “uncollectible” amounts originally identified in account 5301). (AT&T/Joint CLEC Ex. 1.0, p. 78)

As a result of these numerous errors, the Joint CLECs contended, SBC’s shared and common cost allocations are substantially overstated and directly conflict with the FCC’s applicable rules and orders. (AT&T Joint CLEC Ex. 1.0, pp. 96-97) While the Joint CLECs urge the Commission to adopt their recommendation, two adjustments are necessary to the recommendation of Messrs. Starkey and Fischer: (1) SBC made various revisions to its common cost numerator in its rebuttal and its surrebuttal testimony and these changes must be incorporated (see AT&T Cross Ex. 15P, pp. 1-2 and Tr.407-409); and (2) assuming the Commission adopts the recommendation of Joint CLECs and Staff to transfer all support asset costs into the common cost factor, the common cost allocator will need to be increased accordingly.

2. Use of Regulated and Nonregulated Data

Joint CLECs contended that SBC inappropriately used both regulated and non-regulated data in calculating its shared and common cost factors. The relationship between SBC’s regulated expenses and its regulated investments is substantially different than the relationship between nonregulated expenses and nonregulated investments. (Tr. 326-327) AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer point out that nonregulated costs comprise a larger proportion of the common cost numerator than the common cost denominator, thereby increasing the common cost percentage. (AT&T/Joint CLEC Ex. 1.0, p. 46)

As the Joint CLECs reasoned, the common (and shared) cost allocator will only be applied to direct costs for UNEs, which are regulated services; hence, comparing regulated expenses and regulated investments (i.e., direct costs) is the most pertinent comparison. Accordingly, the Joint CLECs removed non-regulated amounts from both the numerator (expenses) and the denominator (direct costs) and, using the FCC’s accounting rules, removed those expenses and investments that are generated only by SBC’s non-regulated services, and they were able to directly assign those expenses as shared costs to the non-regulated operation. AT&T/Joint CLEC Ex. 1.0, pp. 45-46. Consistent with the above, the Joint CLECs also appropriately removed nonregulated data from the shared cost calculation.

Joint CLECs stated that no discretion is required to separate regulated data from non-regulated data. As SBC witness Mr. Barch acknowledged, SBC’s reported ARMIS data is already displayed in regulated and non-regulated formats, making it both objective and easy to use only regulated data. (Tr. 325) As the Joint CLECs explained, by removing non-regulated data from the shared and common cost calculation, the Commission can more precisely remove expenses that are generated only by SBC’s non-regulated services, can directly assign those expenses as shared costs to the non-regulated operation, and can isolate only those expenses that are common or shared costs of the regulated operation, thereby providing an opportunity to more accurately calculate a common cost factor appropriately applied just to UNEs, which are certainly regulated.

As the Joint CLECs also noted, SBC was recently ordered by the Indiana Utility Regulatory Commission to remove nonregulated data from its common cost allocator and its shared cost allocator based on the same arguments they presented in this proceeding. (Indiana Order, pp. 138-139, 141)

Joint CLECs argued that SBC's contention that its post-original filing adjustments "had the effect of removing virtually all non-regulated expenses", thereby eliminating the need to adjust the factors further (SBC Initial Br. at 227), must be rejected. As the Joint CLEC witnesses testified, while these reductions may not be significant, they are necessary to avoid a cross subsidy of non-regulated operations. (AT&T/Joint CLEC Ex. 1.2, p. 7) Joint CLECs pointed out that ironically, Dr. Aron, SBC's own economist, used strictly *regulated* costs as a starting point in making her (flawed) UNE loop and UNE-P comparisons of book cost to UNE revenues. (AT&T/Joint CLEC Ex. 1.2, p. 5) In sum, the Joint CLECs recommend that the Commission require SBC to remove all non-regulated data from its shared and common cost factors.

3. Consistency of Numerators and Denominators

As AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer explained in detail and as AT&T Cross Exhibit 15P plainly demonstrates, SBC calculates its common cost numerator solely using embedded, historical ARMIS data, yet calculates its direct cost denominator using a contrived estimate of "forward-looking" direct costs which are significantly lower than SBC's embedded direct costs. By mismatching higher, embedded common costs over its contrived "forward looking" direct costs, SBC arrives at a substantially overstated common cost allocator.

Joint CLECs contended that SBC's use of embedded cost data in the numerator of its shared and common cost factors and "forward-looking" data in its denominators results in a wholly inappropriate mismatch of data and undermines the whole purpose of the shared and common cost allocation, which is to identify what level of shared and common costs are necessary to support SBC's provision of UNEs. They stated that because the common cost ratio (i.e., common costs / direct costs) should identify the extent to which common costs vary in relation to direct costs, using costs from the same timeframe and from the same methodological basis (i.e., accounting costs versus economic costs) is crucial. They argued that by mixing and matching an embedded common cost numerator with an estimate of forward-looking direct costs in the denominator, SBC arrives at a common cost percentage allocator with little, if any, mathematical or theoretical validity. (AT&T/Joint CLEC Ex. 1.0, pp. 18-19) The same holds true for SBC's shared cost calculation, as the Joint CLEC witnesses explained.

Joint CLECs pointed out that as the FCC made clear, SBC is allowed to recover only those common costs that it can prove would be incurred by a firm operating efficiently consistent with the FCC's TELRIC rules. Said another way, an appropriate common cost fixed allocator could be calculated using forward-looking common costs as a numerator, and forward-looking direct costs as a denominator. As the Joint CLECs convincingly demonstrated, SBC's common cost analysis, which uses essentially unadjusted, embedded historical expenses from its 67XX series accounts as its common cost numerator and its own estimate of forward-looking direct costs as its denominator, directly conflicts with this requirement. (AT&T/Joint CLEC Ex. 1.0, p. 19) The Joint CLECs expressed much concern that this is the worst case scenario for competitors because it allows SBC to recover the same level of historic common costs it incurred

in 2001, even if the direct costs those common costs support are dramatically reduced by the efficiency and forward-looking requirements of the TELRIC methodology. In effect, the Joint CLECs explained, SBC unreasonably assumes that the efficiency and forward-looking assumptions encompassed by the TELRIC methodology will have no impact at all on the common costs SBC expects to incur, even as its direct costs decline. (AT&T/Joint CLEC Ex. 1.0, pp. 18-20)

The Joint CLECs demonstrated that SBC's mismatched common cost allocator is, in essence, a "make whole mechanism." (AT&T/Joint CLEC Ex. 1.0, pp. 21-22) For example, to the extent the Illinois Commerce Commission reduces SBC's proposed loop costs and the common cost denominator decreases, the common cost factor *increases* because the embedded common cost numerator is not impacted by a decrease in direct costs. As the Joint CLECs carefully explained, this is highly inappropriate given that the very reason common costs are recovered as a percentage of direct costs is to acknowledge the fact that as SBC's output (i.e., direct cost) grows, or contracts, common costs should grow or contract proportionally. (AT&T/Joint CLEC Ex. 1.0, pp. 22-23)

The Joint CLECs testified that their preference would have been for SBC to calculate its common cost numerator using a forward looking, "bottoms-up" analysis aimed at identifying only those common costs that would be incurred by an efficient firm relying upon the most efficient technology and practices reasonably available in the marketplace today. As a second best alternative, the Joint CLECs contend, SBC could have undertaken a "tops-down" analysis by adjusting its booked common expenses to reflect efficiencies that could be gained assuming the use of forward looking, efficient technology and practices. Unfortunately, the Joint CLECs lamented, SBC did neither and failed to provide the data for any other party to perform these analyses. (AT&T/Joint CLEC Ex. 1.0, p. 25)

The Joint CLECs urge the Commission not to guarantee SBC the right to recover the totality of its *booked, historic* common costs, regardless of what happens to SBC's total output in the future. Rather, the Joint CLECs urge, the Commission should establish a realistic relationship between the level of common costs SBC actually incurs (or is forecasted to incur) and the totality of the firm's output they will be required to support, thereby ensuring that SBC is allowed to recover only its *forward-looking*, efficient common costs, consistent with TELRIC principles. To accomplish that goal, the Joint CLECs explained, the Commission must ensure that as the value of the denominator rises and falls with demand, SBC's common cost recovery is likewise adjusted. (AT&T/Joint CLEC Ex. 1.0, pp. 23-24)

For these reasons, and based upon the data available, the Joint CLECs recommend that the Commission rely upon the equally valid approach of using booked, historic data for both the numerator and the denominator. In this way, though the *data* used is not forward-looking, the *ratio* of common expenses and direct costs can, with very little adjustment, be considered realistically forward-looking. They argued that this approach has a sound basis in economic theory and comports with cost causation principles (and, importantly, allows the Commission to use the information provided by SBC). They contended that adopting a fixed allocator resulting from the embedded common cost and embedded direct cost relationship will provide SBC the opportunity to recover only those common costs required to support the lower, forward-looking direct costs, as TELRIC. (AT&T/Joint CLEC Ex. 1.0, pp. 25-26) Joint CLECs noted that even

SBC agrees that developing a ratio using booked costs is appropriately forward-looking. In fact, as SBC's Initial Brief (p. 250) makes clear, while SBC used booked data to develop the relationship or ratio between maintenance expense and investment in developing its maintenance factors in its ACF model, even SBC agrees that this ratio "is an accurate indicator of a forward-looking maintenance/investment relationship." (SBC Initial Br. at 250)

As the Joint CLECs also pointed out, the Indiana Commission, rejecting SBC's assumption that SBC's common costs will remain constant no matter how efficient it becomes, recently adopted the Joint CLECs' recommendation. (Indiana Order, pp. 134-135) Even more recently, the Michigan Public Service Commission Staff filed comments in the pending Michigan TELRIC proceeding agreeing that it is essential to the proper determination of a common cost factor that both the numerator and denominator be matched in nature. That is, either both must be embedded or both must be forward looking.²⁴ (AT&T/Joint CLEC Ex. 1.2, pp. 10-12)

As the Joint CLECs pointed out, SBC mistakenly equates "going-forward" costs with "forward looking" costs and erroneously treats the two as the same. (SBC Initial Br. at 227) Yet, SBC witness Mr. Dominak agreed that just because a cost is properly accounted for in an ARMIS account does not mean it is a "forward looking" cost. (Tr. 427; AT&T/Joint CLEC Ex. 1.3, p. 15) In fact, in its TELRIC I Order, the Commission directed that SBC exclude from its shared and common cost study a number of "going forward" expenditures that were not appropriately recovered in a "forward looking" on the grounds that they were discretionary and provided no direct and essential benefit to UNE purchasers. (TELRIC I Order, pp. 51-52; AT&T/Joint CLEC Ex. 1.2, pp. 17-18) Joint CLECs contended that SBC's shared and common cost study suffers from these same flaws.

As the Joint CLECs testified, the key inquiry is to accurately measure the ratio or relationship between shared and common costs and direct costs, all costs being compared must either be historical or forward looking; no matching is acceptable because to do so completely severs the relationship being studied. The Joint CLECs recommend that SBC's mismatched numerators and denominators should be rejected and that the Commission require SBC to implement the Joint CLECs' recommendations using ARMIS data, as adjusted.

4. Productivity and Efficiency

According to the Joint CLECs, SBC applies an inflation factor to its common costs in an apparent attempt to reflect the fact that in future periods (presumably throughout the study period) it may pay higher prices for the goods/services comprising its common expenses than it paid in 2001. As discussed more fully in Section VI, D&E, they argued that SBC fails to concurrently incorporate offsetting productivity gains that it is also likely to enjoy in this same time period, thereby exaggerating any increases in costs SBC is likely to incur. In fact, the Joint CLECs testified that SBC's own executives recently revealed significant short term and long

²⁴See *In the matter, on the Commission's own motion, to review the costs of telecommunications services provided by SBC Michigan*, Case No. U-13531, Initial Comments of the Michigan Public Service Commission Staff, January 20, 2004, pp. 13-17 (quoted at AT&T/Joint CLEC Ex. 1.2, pp. 10-12)

term cost reduction and consolidation initiatives to the investor community that SBC did not –by its own admission – reflect in its cost studies. (Tr. 364; SBC Ex. 7.2, pp. 33-34)

While the Joint CLECs disagreed with the inflation value and assumptions made by SBC in applying its inflation, they made no specific adjustment to SBC’s shared and common cost model because SBC’s proposed inflation factor impacts both the numerator and the denominator equally and results in zero net change to the shared and common cost factors. (AT&T/Joint CLEC Ex. 1.0P, pp. 67-69, 96)

B. Common Cost Factor

1. Development of the Denominator

As the Joint CLECs convincingly demonstrated, instead of relying upon booked TPIS and TOE using a timeframe consistent with its common cost numerator, SBC undertook a rather complicated (and error ridden) attempt to estimate “forward-looking” TPIS and TOE by estimating TELRIC costs for certain network elements and multiplying those TELRIC cost estimates by demand estimates for products that rely upon those network elements. Joint CLECs argued that SBC’s “forward looking” adjustments resulted in a significant decrease in its book costs for TPIS and TOE brought to current value using current-cost-to-book-cost (“CC to BC”) ratios in 2001, thereby substantially increasing the common cost allocator.

As Messrs. Starkey and Fischer amply demonstrated, SBC’s booked, as opposed to “forward-looking”, direct costs represent a more theoretically rational denominator in calculating a fixed allocator specific to common costs because of the crucial need to maintain consistency between common and direct costs. Accordingly, the Joint CLECs explained, they did not undertake an in-depth review of SBC’s “forward-looking” direct cost calculations. Even the limited analysis they were able to undertake, however, yielded substantial concerns about SBC’s dramatic understatement of its direct costs. For example, SBC’s common cost denominator assumes all loops in its network are simple, 2-wire DS0 loops and excludes all other, more expensive, high-capacity loops (AT&T/Joint CLEC Ex. 1.0, pp. 13-14), thereby (as SBC witness Mr. Barch admitted) overstating SBC’s common cost allocator. (Tr. 382-384; Joint CLEC Ex. 1.0, pp. 13-14) In addition, the number of loops SBC uses to calculate its common cost denominator is approximately half a million lower than the number of loops SBC included in its federal Universal Service Fund submission for 2001. As the Joint CLECs testified, understating the number of loops overstates the common cost factor. (AT&T/Joint CLEC Ex. 1.2, p. 13)

The Joint CLECs emphasized that SBC’s analysis must either rely upon a comparison of a forward-looking numerator and a forward looking denominator, or a booked numerator and denominator to maintain a proper relationship between common costs (numerator) and direct costs (denominator). Because SBC has not presented the analysis to compare the former, the Joint CLECs explained, the Commission must compare the latter and order SBC to use the booked amounts proposed by the Joint CLECs for its TPIS and TOE (brought to current cost using the CC/BC ratio) to calculate its common cost denominator, consistent with what it was required to do earlier this year by the Indiana Commission (“We therefore find that SBC should remove the ‘forward looking’ adjustments that it made to its booked direct costs in calculating its common cost denominator.” Indiana Order, p. 135).

Joint CLECs contended that SBC incorrectly asserts that adopting the Joint CLECs' recommendation would result in an historical markup being applied to forward-looking data (*i.e.*, loop rates). They stated SBC is just wrong. They argued that the fact that historical ARMIS data is used in the numerator and denominator is irrelevant because it is the *ratio* of common/shared costs to direct costs resulting from that calculation that will be applied to loop rates. This ratio, they claimed, is no less forward-looking than the ratio that would result from forward-looking data in both the numerator and denominator. Again, the critical issue is what level of common/shared costs are necessary to support UNEs and, so long as the data in the numerator and the denominator match, the ratio is appropriately applied to loops and nonrecurring charges.

2. The 67XX Accounts (Including Retail Cost Adjustment)

In developing its common cost numerator, the Joint CLECs overwhelmingly demonstrated, SBC acknowledges that it relied almost exclusively upon its ARMIS year end 2001 booked expenses for certain accounts typically considered to be "overhead" in nature (67XX accounts). (Tr. 401-409; AT&T Cross Ex. 15P, pp. 1-2) To calculate its common cost numerator, argued the CLECs, SBC essentially simply sums the entirety of its embedded expenses booked to USOA accounts 6711 - 6728 ("67XX expenses") as of year end 2001 and identifies the resulting pool of dollars as its estimate of "forward-looking common costs." The Joint CLECs pointed out that of the ten Series 67XX accounts SBC included in its common cost numerator, the balances in eight of them were completely untouched by SBC in calculating its common cost numerator.

While the Joint CLECs agreed that using these Series 67XX accounts as a starting point may be appropriate, they argued that to use the embedded balances without making certain forward looking adjustments fails to comply with the TELRIC methodology and the FCC's mandate that an ILEC stringently allocate direct and shared costs to the greatest extent possible. With the exception of a single adjustment, the Joint CLECs discussed, SBC made no effort to determine whether *any* of amounts booked to its 67XX series accounts would be more appropriately allocated to individual products or groups of products as direct or shared costs. (AT&T/Joint CLEC Ex. 1.0, pp. 27-28) In fact, the Joint CLECs noted, in response to AT&T Data Requests MS 76, SBC acknowledged that it had not performed any kind of analysis on sub-account, activity code or functional accounting code data to ascertain whether some of these costs should be allocated as either direct or shared costs. (AT&T/Joint CLEC Ex. 1.0, pp. 28-29)

According to the Joint CLECs, there is no question, however, that certain of the expenses in the Series 67XX accounts are not forward-looking and are not appropriately recovered from CLECs purchasing UNEs. They stated that AT&T Cross Ex. 14 reveals that these accounts include costs incurred in formulating corporate policy, including Board of Director salaries and expenses (Account 6711), expenses for company-wide long term planning (Account 6712), human resources and personnel administration expenses (Account 6723) and costs incurred in planning and maintaining application systems and databases for general purpose computers (Account 6724), to name just a few.

Messrs. Starkey and Fischer provided numerous excerpts from SBC's Activity Code Manual which illustrate that SBC could easily have identified many of its 67XX expenses included in SBC's common cost numerator as either direct or shared costs of services other than

UNEs. For example, SBC inappropriately included the entire Account 6722 (External Relations) balance, without any adjustment,²⁵ despite the fact that this account includes expenses for employees who represent SBC in industry organizations focused on protecting the rights of incumbent local exchange carriers and who negotiate compensation arrangements with smaller, independent incumbent carriers for local and toll traffic and tariffing expenses for SBC's basic exchange services, intrastate/interstate private line services, intrastate/interstate MTS/WATS services and vertical exchange services. (AT&T/Joint CLEC Ex. 1.0, pp. 31-34; AT&T Cross Ex. 14) Joint CLECs stated that SBC's own cost activity description confirms that these retail costs are, in fact, contained in Account 6722. (AT&T/Joint CLEC Ex. 1.3P, p. 24) They alleged that if one were to accept SBC's proposal, one must conclude that the booked ARMIS balances from 2001 contain no discretionary expenses or expenses that do not provide any direct or essential benefit to CLEC purchasers of UNEs which, of course, cannot be the case. The Commission has already concluded that such expenses must be excluded from SBC's common cost calculation. (TELRIC I Order, p. 51; AT&T Ex. 3.1, p. 22) In addition, Messrs. Starkey and Fischer explained, Account 6722 also includes SBC's expenses to further its legislative objectives despite the fact that rarely, if ever, are SBC's legislative initiatives targeted to further its UNE-based business, as recently defeated Senate Bill 885 demonstrates. (AT&T/Joint CLEC Ex. 1.0, pp. 34-35; AT&T Cross Ex. 14) Joint CLECs asserted that these costs are not common; they are directly attributable to those other services, and not to UNEs. (AT&T/Joint CLEC Ex. 1.0, p. 33)

As the Joint CLECs explained and as the overwhelming record evidence demonstrates, SBC's failure to adequately attribute its 67XX expenses to specific elements to the greatest possible extent violates not only the FCC's directive to "...attribute costs to specific elements to the greatest possible extent, which will reduce the common costs,"²⁶ but this Commission's previous directives in Dockets 96-0486/0569 to exclude common costs "...solely attributable to the discretionary actions of Ameritech and which provide no direct and essential benefit to the UNE purchaser."²⁷ (AT&T/Joint CLEC Ex. 1.0, pp. 36-38)

As the Joint CLECs strongly suggested, applying the Commission's avoided wholesale discount factor provides a reasonable basis for allocating some portion of SBC's 67XX expenses to its retail organization because it represents the retailing costs that are avoided by providing the service in a wholesale environment. They claimed that applying the Commission-approved wholesale discount segregates that portion of those expenses directly attributable to the retailing function. In fact, the Joint CLECs noted, Dr. Aron, SBC's own economist, acknowledged the propriety of using – in fact, used – an avoided wholesale discount as a legitimate method of removing retail-related costs from ARMIS data. (SBC Ex. 2.0, pp. 8-10; Tr. 279-282) Joint

²⁵ As Mr. Barch discussed, SBC did remove some TBO amounts from Account 6722, only to add them back into the common cost numerator, dollar for dollar, in the separate line item labeled Transitional Benefit Obligation in calculating SBC's common cost numerator. (Tr. 401-409; AT&T Cross Ex. 15P, pp. 1-2.)

²⁶ *Local Competition Order*, ¶695.

²⁷ TELRIC I Order, p. 51.

CLECs contended that this adjustment is conservative because it does not identify all retail-specific costs, but only those that would be avoided in a wholesale environment. (AT&T/Joint CLEC Ex. 1.0, pp. 40-42)

Moreover, Joint CLECs argued that SBC's own avoided cost methodology recognizes that a significant portion of its total avoidable costs is corporate operations expense from its 67XX accounts. In the currently pending TELRIC case in Michigan, SBC filed an avoidable cost study to revise the currently effective avoided cost discount in Michigan.²⁸ This cost study, designed to calculate total retail avoided costs when operating in a wholesale environment, *applies the avoided cost percentage to the total book cost of its corporate overhead in the 67XX accounts*. Joint CLECs asserted that through its own avoided cost methodology, then, SBC itself recognizes that a significant portion of its common cost expense can be identified as avoidable retail costs by applying an avoided cost factor. (AT&T/Joint CLEC Ex. 1.2, pp. 25-26)

As the Joint CLECs testified, SBC's contention that retail cost must also be removed from the denominator if they are removed from the numerator (SBC Initial Br. at 232) is belied by the fact that SBC's avoided cost study in Michigan reveals that the only account included in both SBC's common cost denominator and its avoided cost study is Account 6623 (Customer Services). However, SBC has excluded this account from its denominator and has included it instead in its shared cost numerator. As such, the CLECs stated that the common cost denominator is unaffected.

The Joint CLECs clearly explained, however, that applying the resale discount in this manner does not render a more forward-looking common cost pool; instead, they argued that it more diligently allocates direct or shared costs that SBC has misidentified as common costs in the common cost numerator. This is important because the underlying objective of maintaining a rational, meaningful relationship between the common cost numerator and the common cost denominator (i.e., direct costs) remains paramount. Joint CLECs asserted that unless they are both embedded or both forward looking, the relationship is meaningless.

In sum, the Joint CLECs contended, SBC's common cost numerator is not "forward looking" at all. They argued that SBC's "forward looking" adjustments more than doubled SBC's 2001 booked expenses and that SBC's common cost numerator includes expenses that are not appropriately recovered through UNE rates, contrary to this Commission's prior TELRIC Order. They contended that SBC exerted no effort to identify any of its 67XX expenses as either direct or shared costs for services other than UNEs or to allocate them accordingly consistent with the FCC's requirement that common costs be kept to a minimum by using more stringent allocation among the services and products they support in this regard. To remedy these flaws, the Joint CLECs recommended that the Commission adopt AT&T/Joint CLEC witnesses Mr. Starkey's and Mr. Fischer's proposal to use the Commission's approved avoided wholesale discount factor to remove those costs that should have been allocated, either as direct or shared

²⁸See In the matter, on the Commission's own motion, to review the costs of telecommunications services provided by SBC Michigan, Case No. U-13531, Direct Testimony of Thomas Makarewicz, Confidential Exhibit TJM-2 (cited at AT&T/Joint CLEC Ex. 1.2, pp. 25-26).

costs, to SBC's retail operations or to SBC's non-UNE wholesale products. (AT&T/Joint CLEC Ex. 1.0, p. 39) Joint CLECS contended that this discount is on par with the 21.4% avoided cost discount recently ordered by the Indiana Commission to remove retail-related expenses from SBC's common cost numerator. (Indiana Order, pp. 136-137)

3. Transitional Benefit Obligation

Joint CLECs noted that SBC separately identifies and includes in its common cost numerator expenses attributable to a transitional benefit obligation ("TBO") created in 1991 when SFAS 106 required SBC to convert its accounting for post-retirement benefits (other than pensions) to an accrual basis from a cash accounting basis. Since 1991, SBC has been required to accrue anticipated expenses specific to post-retirement benefits while the employees in question are in active service with the company. (AT&T/Joint CLEC Ex. 1.0, p. 50) At the time that this accounting change occurred, SBC was required to accrue a "catch up" obligation equivalent to the amount it would have accrued to date had it been accruing post-retirement expenses for its employees all along for years of service rendered prior to 1991. (Tr. 390, 429) This obligation is referred to as the Transition Benefit Obligation, and represents the transition from a cash accounting basis to an accrual basis for post-retirement benefit expenses. As SBC witness Mr. Dominak testified, the FCC required SBC to amortize this obligation over eighteen years and, since 1991, SBC has been amortizing 1/18th of this amount on its books, and did so in 2001, the test year. (Tr. 390-391, 428-429; SBC Ex. 17.0, p. 8) Joint CLECs noted that SBC does not dispute that the TBO obligation was incurred as a result of accounting changes implemented in 1992 and represents a post-retirement benefit liability for employee years of service *prior to the 1992 accounting change*. (Tr. 429) It is for this reason that both the Joint CLECs and SBC's own TBO witnesses refer to the TBO as a "catch-up" or "retroactive" obligation." (AT&T/Joint CLEC Ex. 1.0, pp. 50-52; Tr. 390; SBC Ex. 17.0, p. 10)

Joint CLECs pointed out that SBC accrued post-retirement benefit expenses for its active workforce in test year 2001 (Tr. 391), those 2001 expenses are included in SBC's shared and common cost study, and the Joint CLECs do not dispute their inclusion. (Tr. 391-392) What the Joint CLECs strongly oppose, they explain, is SBC's inclusion of the TBO "expenses" for employee years of service prior to 1991 – which are clearly not forward-looking – in addition to the expenses SBC accrued for its 2001 workforce in the cost study.

As the Joint CLECs repeatedly emphasized, the primary goal in establishing a common cost allocator is to determine what level of common costs is necessary for SBC to support the direct costs (e.g., employees and equipment) necessary to produce UNEs on a forward-looking basis. Therefore, they declared it is critical that one measures only those common expenses that were actually incurred in that timeframe relative to the total direct costs that were also generated in that same timeframe. They contended that mixing and matching expenses from other time periods specific to activities that have no bearing on either the expenses or direct costs incurred in the "test year" skews the ultimate ratio of common costs to direct costs and fails to generate the level of common costs required to support a given level of direct costs for the test year. (AT&T/Joint CLEC Ex. 1.0, p. 52)

The TBO, representing an accrual for employee years of service prior to 1992, reveals nothing about the ongoing relationship between common costs and direct costs. As the Joint

CLECs explained, if SBC is allowed to recover both its TBO and the post-retirement benefit expenses it accrued for its existing 2001 workforce – as SBC proposes – the resulting common cost ratio would recover not only existing employee pension expenses, but also the pension expenses associated with past employee service that does not aid in providing UNEs. They stated that the only reason those expenses remain on SBC’s books at all is because of the 18 year amortization period; in fact, as SBC witness Mr. Dominak acknowledged, there would have been no TBO in test year 2001 if the FCC’s chosen amortization period had ended prior to the 2001 test year. (Tr. 430-431) Moreover, as Messrs. Starkey and Fischer convincingly demonstrated, while SBC is amortizing the TBO over an eighteen year period for regulatory purposes, Ameritech immediately recognized the entire amount of the TBO on its financial books of account in 1992. (AT&T/Joint CLEC Ex. 1.2, pp. 30-31)

The Joint CLECs noted that the FCC’s RAO 20 letter cited at page 233 of SBC’s Initial Brief does not provide evidence of an FCC intent that the TBO amortization be considered an ongoing expense that must be accounted for in SBC’s forward-looking cost studies. Rather, as the Joint CLECs explained, the guidance the FCC provided in its RAO letter, issued in 1992, preceded the Telecommunications Act of 1996 and the FCC’s creation of TELRIC principles for determining forward-looking costs of unbundled network elements and was intended to ensure consistency among carriers reporting to the FCC for interstate ratemaking purposes. (AT&T/Joint CLEC Ex. 1.2, pp. 32-34) Joint CLECs asserted that the mere fact that the FCC required carriers to defer recognition of their TBO obligation over a number of years does not imply that an expense is forward-looking. They argued that an expense is considered forward-looking in a TELRIC construct if it reflects what an efficient carrier would incur today to provision UNEs. It does not reflect SBC’s recovery of obligations deferred for regulatory purposes.

While SBC attempts to defend its TBO position by citing contrary Commission precedent (SBC Initial Br. at 235), Joint CLECs pointed out that these proceedings were not setting rates in accordance with forward-looking TELRIC principles. Rather, they are all traditional ratemaking proceedings – including some electric utility rate decisions – based on embedded, accounting costs. (AT&T/Joint CLEC Ex. 1.2, pp. 34-35)

Joint CLECs posited that the amortized TBO amount that remains on SBC’s books is not a “forward looking” expense; instead they argued it is a non-economic cost with no cash flow implications. (AT&T/Joint CLEC Ex. 1.0, p. 53) Certainly, they contended, these expenses are not expected to occur, and will not occur, in the future. The FCC, recognizing that this accounting change has absolutely no impact on any carrier’s actual cash flow or future cash flow, has, since 1995, prohibited any carrier from including these costs in the interstate rates regulated by the FCC. (See First Report and Order, *Price Cap Performance Review for Local Exchange Carriers*, 10 FCC Rcd. 8961, ¶¶ 307, 308 (1995) (“1995 Price Cap Performance Order”)); AT&T/Joint CLEC Ex. 1.2, pp. 31-32) The Joint CLECs recommended that the Commission reject SBC’s proposal to include the TBO in UNE rates.

4. Pension Settlement Gains

SBC accrues pension gains when its actual pension costs are less than anticipated due to actual expenses that are lower than actuarial estimates and/or the result of better than expected

returns on its pension investments. (AT&T/Joint CLEC Ex. 1.0, pp. 53-55) SBC recognized a sizable pension settlement gain in test year 2001 and recorded it to Account 6728. In calculating its common cost numerator, SBC removed this credit in its entirety, resulting in its “forward-looking” expenses exceeding its booked expenses by an overwhelmingly significant degree. (AT&T/Joint CLEC Ex. 1.0, pp. 56-59; AT&T Cross Ex. 15P, p. 1)

The Joint CLECs strongly objected to SBC’s complete reversal of the 2001 pension settlement gain credit. While SBC refers to its 2001 pension settlement gain as an “anomaly”, the Joint CLECs pointed out that SBC acknowledged significant pension settlement credits for the years 1998-2001 and, for the years 1987-2002, the average annual level of pension settlement gains SBC experienced was \$1.6 million. (AT&T/Joint CLEC Ex. 1.0, p. 56)

Despite the fact that it recognized pension settlement gains in each of the fifteen years preceding 2002, SBC argues that it is highly unlikely it will experience anything approaching the level of 2001 pension settlement gains in the foreseeable future because the “landscape going forward will be characterized by increasing pension expense.” (SBC Initial Br. at 237) According to the Joint CLECs, however, the 2001 credit is not an anomaly. As AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer testified, it is not appropriate to assume that SBC will not recognize any pension settlement credits in the future, particularly given SBC’s past track record of consistent gains. While it is true that SBC Midwest’s unrecognized pension gains turned to losses in 2002, Joint CLECs noted that these unrecognized gains and losses have a direct correlation with investment returns from the stock market. As the Joint CLECs demonstrated, SBC’s unrecognized losses have begun to decline as the stock market has stabilized and is beginning to exhibit an upward trend as reflected in the trend of the S&P 500 Index. (See AT&T Ex. 1.2, p. 37) To the extent SBC continues to streamline its workforce through the additional job reductions and efficiencies reflected in its 2002 Annual Report and in its recent Investor Briefing, Joint CLECs stated that pension settlement activity is likely to continue throughout the study period for determining UNE rates. (AT&T/Joint CLEC Ex. 1.2, pp. 37-38)

The Joint CLECs agreed, however, that the pension settlement credit SBC booked in 2001 is somewhat high compared to past years. Thus, the Joint CLECs recommended that the Commission normalize the settlement credit by adding back to Account 6728 the average net pension settlement gain SBC has received each year from 1987-2002. (AT&T/Joint CLEC Ex. 1.0, pp. 56-58)

5. Merger Savings

As the Joint CLECs fully explained, there is no question that the Commission anticipated that merger savings would be and should be reflected in SBC’s UNE rates and, in particular, in its shared and common cost markup. In Docket No. 98-0555, the SBC/Ameritech Merger docket, the Commission specifically identified SBC’s shared and common cost factor as an appropriate mechanism by which CLECs should enjoy the merger-related savings that SBC and Ameritech so enthusiastically promised as a result of their merger. (SBC Merger Order, p. 146)

In Docket Nos. 98-0252/0335/00-0764, when the CLECs raised the issue of merger savings being reflected in UNE rates, the Commission pointed CLECs to a future docket where

SBC's shared and common cost calculations would be squarely at issue. In fact, in its *Merger Savings Order* (p. 24) in that docket, the Commission expressly stated that the one time credit the CLECs received in that docket would not "deprive the CLECs of updated UNE prices in the future."

Disappointingly, and contrary to these Commission directives, the Joint CLECs contend, SBC's shared and common cost study fails to fully capture the merger-related savings this Commission contemplated in its Merger Savings Order. (AT&T/Joint CLEC Ex. 1.0, p. 61) In Docket Nos. 98-0252/98-0335/00-0764, data provided by SBC witness David W. Fritzlen revealed that over 80% of all merger-related savings would not be captured until the 2002 – 2004 timeframe, and that greater than 55% of anticipated merger savings would not be captured until the 2003 – 2004 timeframe. Thus, according to the Joint CLECs, SBC's assertion that merger savings realized prior to 2001 are captured in the 2001 data because the data reflects a relevant "run rate" (i.e., that SBC's 2001 booked expenses were lower than they would have been absent merger savings) is inconsistent with its own testimony in the Merger Savings Docket. Because SBC used a simple one-year snapshot of accounting data to develop its shared and common cost allocator, Joint CLECs contended that its calculations fail to account for the merger savings attested to by Mr. Fritzlen and the merger-related savings SBC is sure to enjoy on a going forward basis. As SBC witness Mr. Barch testified, using 2002 data rather than 2001 data would provide a better foundation upon which to calculate forward looking shared and common costs, including a run rate for merger savings. (Tr. 311-314) Accordingly, Joint CLECs argued that SBC's 2001 "run rate" likely fails to capture more than 80% of its total merger savings. (AT&T/Joint CLEC Ex. 1.0, pp. 62-63)

Joint CLECs stated that SBC is simply wrong that the merger savings will not impact the numerator of the shared common cost factor calculation. They claimed that when two entities merge, it is generally the corporate offices of the merged company, specifically its managerial and executive functions (*i.e.*, the 67XX accounts such as Executive, Planning, Human Resources, Other General and Administrative) that see immediate and long term expense (and staff) reductions. The Joint CLECs therefore recommend that the Commission require SBC to recognize the difference between the merger-related savings it actually enjoyed in 2001 and the average yearly merger-related savings it expects to enjoy between 2002-2004. While SBC failed to identify what percentage of merger-related savings it believes will be realized in its 67XX accounts, the Joint CLECs explained that it is conservatively safe to assume that 30% of SBC's total merger-related savings projected for 2003 would be captured as reductions in its 67XX series accounts. (AT&T/Joint CLEC Ex. 1.0, pp. 64-65) Joint CLECs recommended that the Commission should order SBC to reduce its common cost numerator by the amount recommended by the Joint CLECs to reflect merger savings.

6. Employee Levels

The Joint CLECs agreed with Staff's position on this issue.

7. Agreed Upon Issues

a. OSS Testing Costs

Joint CLECs agreed with Staff that OSS testing costs should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

b. Tier 1 Remedy Payments

Joint CLECs agreed with Staff that Tier 1 Remedy Payments should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

c. Digital Divide Payments

Joint CLECs agreed with Staff that Digital Divide Payments should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

d. Non-Chicago Sales Tax

Joint CLECs agreed that SBC should make this adjustment.

8. Reclassification of Support of Asset Costs as Common Costs

In Section VI, C below, the Joint CLECs recommended as the Indiana Commission recently ordered, that all of SBC's support asset costs be reclassified as common costs. In the event the Commission adopts the Joint CLECs' proposal, SBC's common cost allocator will be directly affected and will need to be increased accordingly.

C. Shared Cost Factor

1. Definition of Wholesale Shared Costs

As discussed above, SBC calculates wholesale marketing costs by combining its booked expenses from accounts 6611 (*Product Management*), 6612 (*Sales*), and 6613 (*Marketing*) to arrive at a total-company "Marketing" expense and identifies that portion attributable to "Ameritech Services, Inc." and "SBC Operations" as its "wholesale marketing costs." SBC divides the wholesale marketing costs by the "wholesale direct cost" denominator to arrive at a wholesale marketing percentage. (AT&T/Joint CLEC Ex. 1.0, p. 71)

In calculating both of these shared cost components, the Joint CLECs contend, SBC defines the universe of "wholesale services" that it uses to allocate shared costs to its UNEs much too broadly by including the entirety of its "wholesale" services, including switched and special access, compensation with independent exchange carriers, services to payphone providers, etc., into a single bucket, of which UNEs are only a very small part. SBC then allocates the expenses associated with all of these "wholesale" services as shared costs, a portion of which is to be recovered from UNEs via the shared cost markup.

While SBC contends that ARMIS data does not separately identify wholesale shared costs associated with UNEs and that SBC does not itself track uncollectibles or marketing

expenses at the UNE level (SBC Initial Br. at 242-243), as AT&T/Joint CLEC witnesses Mr. Starkey and Mr. Fischer pointed out, SBC made a conscious business decision not to develop a method for tracking those marketing costs and uncollectible revenues. (AT&T/Joint CLEC Ex. 1.2, p. 40) The Indiana Commission, realizing the weakness of SBC's shared cost calculation, required SBC to "put in place accounting practices that will allow it to allocate its wholesale costs among different types of wholesale products (i.e., UNE vs. non-UNE)." (Indiana Order, p. 141; AT&T/Joint CLEC Ex. 1.2, p. 44) The Joint CLECs urged that just as this Commission has previously disallowed certain expenditures because SBC failed to prove that they are appropriate and/or failed to quantify them,²⁹ the Commission should also reject SBC's marketing costs due to the extreme lack of verifiable cost support to identify appropriate UNE-marketing costs.

2. Wholesale Uncollectible Expense

SBC calculates the Wholesale Uncollectible Cost component of its shared cost factor by taking the 2001 company-wide uncollectible balance and estimating that a certain percentage of that uncollectible balance is attributable to "wholesale services." (AT&T/Joint CLEC Ex. 1.0, pp. 76-77) According to the Joint CLECs, SBC has utterly and completely failed to demonstrate that the amount of wholesale uncollectibles in its shared cost numerator is an appropriate amount to attribute to UNEs via the shared cost allocator. Though SBC's calculation of "wholesale uncollectible cost" represents the largest single component of its shared and common cost fixed allocator, Joint CLECs noted that SBC provides the least amount of information to support it. In fact, SBC's wholesale uncollectible cost is nothing more than a hard-coded value in SBC's shared and common cost study, with no back up support, information or documentation. The Joint CLECs also expressed concern that SBC does not explain how it was able to allocate specific uncollectibles to its ALDIS and/or Special Markets divisions or, perhaps more importantly, if it was able to do so, why it could not also similarly identify uncollectibles specific to UNEs. Joint CLECs noted that SBC fails to even mention, let alone explain, why substantial variations in its uncollectibles data over time were not considered in deriving a reasonable uncollectibles estimate relevant for future time periods. (AT&T/Joint CLEC Ex. 1.0, pp. 76-80)

In addition, Joint CLECs argued that by lumping its wholesale services and products into one large, generic "wholesale" bucket, SBC's analysis allocates expenses to UNEs that are more appropriately allocated directly to other products given the fact that UNEs bear little similarity to the bulk of SBC's "wholesale services," including switched access, special access, resale, etc. (AT&T/Joint CLEC Ex. 1.0, p. 78) According to the Joint CLECs, SBC has provided absolutely no information or data to support its implicit assumption that the uncollectibles these other wholesale products experience somehow serves as a good proxy for estimating UNE uncollectibles. In fact, the Joint CLECs pointed out, the information SBC provided to Staff indicates that wholesale services in general are *not* a good proxy for UNEs. Specifically, SBC-provided data indicates that between 2001 and 2002, while SBC's total UNE-related revenues nearly doubled, its bad debt expense allocable to its "wholesale services" fell by a significant percentage. (AT&T/Joint CLEC Ex. 1.0, p. 79; AT&T Cross Ex. 18P) SBC data similarly indicates that bad debt expense allocable to wholesale services again fell significantly from 2002 to 2003, while UNE revenues continued to increase. (AT&T/Joint CLEC Ex. 1.2P, pp. 48-49)

²⁹See TELRIC I Order, pp. 50-51.

If, however, SBC's UNEs contribute equally to SBC's bad debt expense by proportion of revenue (as one would expect if total wholesale uncollectibles were indeed a good proxy for UNE uncollectibles, as SBC assumes), Joint CLECs asserted that one would expect total bad debt expense to fluctuate fairly consistently with UNE revenue (i.e., as revenue increases, bad debt increases and vice versa). Joint CLECs pointed out that SBC's own data indicates that the opposite is true, and that wholesale uncollectibles as a whole are not representative of UNE uncollectibles for purposes of calculating a shared cost factor. (AT&T/Joint CLEC Ex. 1.0, pp. 78-79)

Moreover, as the Joint CLECs pointed out and as SBC agrees, 2001 represents the largest uncollectible balance SBC has experienced in the recent past (perhaps ever). Indeed, as noted above, SBC's uncollectibles for its "wholesale services" fell significantly from 2001 to 2002 and again from 2002 to 2003, even though its revenue associated with those products increased. (Tr. 360-361, 457-458; AT&T Cross Ex. 18P; AT&T/Joint CLEC Ex. 1.0, pp. 80-81) In fact, SBC's own witness, Mr. Dominak, acknowledged that SBC's uncollectibles were particularly volatile in 2001 due to CLEC bankruptcies and other high risk considerations. (Tr. 449-450) Using the allowance method to estimate uncollectibles -- as SBC does and which SBC itself admits requires estimation, judgment and discretion (Tr. 441) -- in conjunction with the Generally Accepted Accounting Principle (GAAP) of conservatism (Tr. 432-433) in a particularly volatile year, Joint CLECs asserted that one would certainly expect the uncollectible balance to be on the high (conservative) side so as not to overstate SBC's net income. (Tr. 433, 443)

Indeed, the fact that SBC's wholesale uncollectibles have dropped significantly since 2001 indicates, according to the CLECs, that SBC's wholesale uncollectibles were overstated. (AT&T Cross Ex. 18P; AT&T/Joint CLEC Ex. 1.2P, pp. 48-49) In addition, SBC witness Mr. Barch, in his direct testimony supporting the shared and common cost study, predicted that SBC's proposed wholesale uncollectible percentage was conservative, and perhaps understated. (SBC Illinois Ex. 17.0, p. 19) Joint CLECs noted that that prediction, of course, has proven to be inaccurate, further demonstrating that the predictions and estimations SBC at the time it submitted its cost study -- including its uncollectible expense -- were erroneously high. This conclusion is further corroborated, argued the CLECs, by the marked decline not only in bad debt expense, but a decrease in CLEC bankruptcies. (AT&T/Joint CLEC Ex. 1.2, p. 51) In addition, contrary to SBC's expectations and as SBC witness Mr. Dominak testified, the WorldCom bankruptcy actually *reduced* SBC's bad debt exposure. (SBC Ex. 17.1, p. 16) Clearly, argued the CLECs, the primary justification behind SBC's reliance on wholesale bad debt expense to support its cost studies -- substantial reserves for CLEC bankruptcies -- is no longer sustainable. (AT&T/Joint CLEC Ex. 1.2, p. 52) Again, Joint CLECs maintain, all indicia lead to the fact that SBC's estimated wholesale uncollectibles are inflated.

As the Joint CLECs also pointed out, SBC used its entire year-end balance in Account 5301 (Bad Debt Expense) as its "wholesale uncollectible" expense (Tr. 446), which, according to the FCC's Chapter 32 rules, tracks only those revenues that SBC originally deemed uncollectible and fails to capture any amounts SBC eventually collected. According to the Joint CLECs, SBC-provided data demonstrates that the amount actually written off was much smaller than the amount originally booked to Account 5301 (and the amount SBC used in its shared cost analysis). The fact that SBC ultimately collected a large portion of amounts originally identified in Account 5301 as "uncollectible" significantly overstates the amount of uncollectibles properly

attributable to UNEs via the shared cost allocator, the Joint CLECs asserted. (AT&T/Joint CLEC Ex. 1.0, pp. 83-89)

As SBC witnesses Mr. Barch and Mr. Dominak acknowledged, SBC's 2001 wholesale uncollectibles were estimated against a backdrop of volatility and high risk that, contrary to SBC's prediction, has quieted. (Tr. 358-363, 449-458) To remedy the above concerns and to account for the obviously anomalous 2001 Account 5301 balance, the Joint CLECs recommended that the Commission require SBC to use an average of the wholesale revenue write-offs that SBC *has actually experienced* from 1998-2003 as its uncollectible expense in the shared cost numerator, which represents the real economic loss SBC actually incurred from 1998-2003. (AT&T/Joint CLEC Ex. 1.2, pp. 52-53)

3. Wholesale Marketing Expense

As discussed above with respect to wholesale uncollectibles, Joint CLECs maintain that SBC defines "wholesale services" far too broadly (i.e., switched and special access, Centrex, payphone services, compensation with independent exchange carriers, and others) and fails to demonstrate that the relationship between shared costs specific to "wholesale services" bears any relationship to those shared costs specific to UNEs. (AT&T/Joint CLEC Ex. 1.0, pp. 70-72)

Of particular concern to the Joint CLECs is the fact that using SBC's overly broad "wholesale services" methodology allocates a significant amount of sales and product advertising expenses to the shared cost numerator. While the FCC's Part 32 accounting rules generally describe expenses booked to these accounts as expenses meant to increase demand for the products of the company, or to further stimulate sales and revenue, SBC admitted that it did not, at any time in 2001, undertake any attempts to persuade an entity to purchase UNEs from SBC. (AT&T/Joint CLEC Ex. 1.0, pp. 72-73) Thus, the Joint CLECs strongly asserted, these sales and advertising expenses bear little, if any, correlation to UNEs.

While the Joint CLECs contended that some amount of product management and product sales expenses are appropriately attributable to UNEs because UNE purchasers are provided account managers, documentation and some limited assistance in ordering UNE products, it is not reasonable simply to lump UNEs together with SBC's other wholesale products and assume that all products should bear product management and marketing expenses equally, as SBC has done.

To remedy this flaw, the Joint CLECs, using SBC-provided revenue information from 1997-2001, compared SBC's total UNE revenue to the revenue SBC received from all of its services (including other wholesale services) and, using that percentage, determined the amount of wholesale marketing expense appropriately attributable to UNEs. As the Joint CLECs explained, because the level of marketing, advertising and product support expenses allocated to any given product group are most likely dictated by the revenues (or profits) SBC can expect to enjoy as a result of incurring those expenses, the Joint CLECs used UNE revenues as a more reasonable basis upon which to allocate marketing expenses. The Joint CLECs recommend excluding expenses from Account 6613 (*Advertising*) altogether based on the fact that SBC admits that it does not advertise to "stimulate" demand for its UNE products.

4. Calculation of Wholesale Shared Cost Denominator

As the Joint CLECs explained, because it is a subset of SBC's largely unexplained and admittedly flawed common cost denominator (Tr. 382-384), SBC's "wholesale direct cost" denominator is derived from the same error-riddled analysis SBC undertook to identify its "forward-looking" direct costs used in its common cost analysis. As such, Joint CLECs urged that SBC's denominator contains unreliable data that is inappropriate to use in a properly performed TELRIC analysis.

To remedy the flaws in SBC's shared cost denominator and to be consistent with the Joint CLECs' other recommended revenue-based adjustments to SBC's shared costs, the Joint CLECs recommended that 2001 UNE revenues be used in the shared cost denominator, a recommendation that favors SBC. (AT&T/Joint CLEC Ex. 1.0, pp. 41-44) The Joint CLECs urge the Commission to reject the "extended TELRIC" in the denominator. The "extended TELRIC" methodology is an entirely new proposal that no party has been able to investigate, analyze or quantify. Even SBC points out that the information necessary to implement Staff's proposal is not in the record, including an analysis of demand and cost data for all wholesale services SBC provides. (SBC Initial Br. at 249) Joint CLECs argued that that information is not in the record and, with all due respect, that this proposal should be rejected.

VI. ANNUAL COST AND OTHER FACTORS

Summary of Recommendations

Joint CLECs' recommended adjustments to SBC's Annual Charge Factors are included in the Summary of Recommendations at the start of Section V, above.

A. Annual Charge Factors

Joint CLECs' primary concerns with SBC's Annual Charge Factors, or ACFs, are that SBC, in calculating its ACFs, inappropriately used an overstated cost of capital and its depreciation lives for financial reporting purposes; inappropriately assumed that maintenance expenses increase in a linear fashion as utilization levels increase; failed to remove investment and expenses attributable to building space leased to collocating carriers and all non-affiliated entities; and employed an incorrect inflation factor and failed to concurrently recognize offsetting productivity gains.

1. Adjustments to maintenance and other expense factors, including use of non-regulated data and network utilization factor

Expense factors consist of maintenance, other expense, ad valorem tax and the Commission's assessment factor. The Joint CLECs' primary concerns with SBC's expense factor calculations are that SBC's proposed expense factors include the use of both regulated and non-regulated data; that SBC's maintenance factor utilization adjustment results in unwarranted and unproven cost increases; and that the average investment used in SBC's ad valorem tax factor must be adjusted to current cost.

a. SBC's ACF Model Should Use Only Regulated Investment and Expense Data

Consistent with the discussion above regarding shared and common costs, Joint CLECs argued that non-regulated data should be removed from SBC's expense and investment factor calculations when calculating its ACFs. SBC's 2001 ARMIS data demonstrates that the percentage of non-regulated total operating is greater than the percentage of non-regulated plant investment. AT&T/Joint CLEC Ex. 1.0, pp. 113-114. Since operating expenses are the numerator in the expense-to-investment ratio algorithm, the numerator used by SBC is larger than it should be and overstates UNE rates. Consequently, SBC's expense factors are overstated and all non-regulated data should be removed to correct this overstatement.

Non-regulated data must also be removed to prevent cross-subsidization of non-regulated competitive services. The Joint CLECs demonstrated that the FCC, a long-term proponent of safeguards protecting ratepayers who use regulated services from the detrimental impact of those services subsidizing competitive services, has required ILECs to remove non-regulated costs from studies used to set regulated rates for years through application of its rules in 47 C.F.R. Part 64. See FCC's *Accounting Safeguards Order* dated December 1996. AT&T/Joint CLEC Ex. 1.0, pp. 112-113. According to the Joint CLECs, the Commission should, therefore, require SBC

to eliminate all non-regulated data in calculating both the numerator and denominator in the expense-to-investment ratio that comprise its expense factors.

**b. SBC's Maintenance Factor Utilization Adjustment
Results in Unwarranted Cost Increases**

SBC has included a maintenance factor utilization adjustment in its ACF model that increases maintenance and other expense factors in a linear fashion if the network utilization, or fill, is increased beyond the fill or utilization factors SBC proposes. At its core, the Joint CLECs assert, this adjustment is designed to counteract any UNE cost decreases that may occur as a result of raising the utilization levels by increasing maintenance expenses as utilization levels rise.

As the Joint CLECs explained in detail, SBC's network utilization adjustment factor must be rejected for many reasons. First, SBC provided almost no information at all to support either the theory or the application of the adjustment, even though it has the potential to *dramatically increase* SBC's maintenance expense factor. AT&T/Joint CLEC Ex. 1.0, pp. 213-215. In addition, SBC's analysis is limited to copper cabling. Thus, even assuming SBC's analysis demonstrates any meaningful relationship between utilization and operating costs, it holds true only for copper cables and none of the other facilities in SBC's network, including those deployed for the very purpose of reducing maintenance costs. Yet SBC applies its utilization/maintenance cost algorithm contained in its ACF model to all types of facilities, not just copper cables.

More importantly and most tellingly, the Joint CLECs demonstrated, SBC's own data – even assuming it is inherently reliable (which Joint CLECs do not) -- demonstrates that there is no linear relationship between utilization rates and maintenance costs. AT&T/Joint CLEC Ex. 1.0, pp. 215-216. While the Joint CLECs do not completely disagree that some maintenance and administrative costs may increase as fill levels exceed a certain benchmark rate (i.e., target fills), SBC's algorithm creates a linear relationship between utilization and maintenance costs such that for *any incremental increase* in utilization, a corresponding incremental increase in maintenance expense is derived. As Messrs. Starkey and Fischer convincingly demonstrated, performing a linear regression analysis on SBC's own data generates an R^2 value of less than 42%, strongly confirming the lack of a linear relationship, contrary to SBC's inherent assumption. AT&T/Joint CLEC Ex. 1.0, pp. 216-218.

In fact, SBC's analysis shows that utilization rates in the range of 70%-75% produce operating costs no greater than those generated at utilization levels closer to 10%-20%, indicating that the relationship between utilization and increased maintenance costs is not linear but, rather, somewhat geometric. At some level of utilization, the most efficient action would be to add additional facilities to arrive at a lower level of utilization (and hence, maintenance costs) on the original curve. This is exactly what the Ameritech Illinois' target fill factors adopted by the Commission in Docket No. 96-0486/0569 were intended to accomplish. Not surprisingly, the Joint CLECs contend, SBC's own analysis supports Ameritech Illinois' previous rationale in ICC Docket Nos. 96-0486/0569 for using target fill factors. AT&T/Joint CLEC Ex. 1.0, pp. 217-219.

As the Joint CLECs testified, SBC's network utilization factor *breaks* the relationship between maintenance expense and investment, and allows SBC to recover the same level of per unit maintenance and other expenses, regardless of the amount of investment. (AT&T Ex. 1.2, p. 55). Specifically, as the Joint CLECs also clearly demonstrated, SBC's model erroneously assumes that the same amount of facilities will be placed, regardless of the utilization levels the Commission adopts. As Messrs. Starkey and Fischer explained, however, adopting the CLECs' fill factor proposal likely results in fewer total facilities being placed. AT&T/Joint CLEC Ex. 1.2P, pp. 54-57. SBC's theory, on the other hand, assumes SBC's forward-looking network will require the same number of facilities that exist today. As Joint CLECs noted, however, a forward-looking network is constructed using a carrier's existing footprint and the most efficient, forward-looking, currently available technology. If a team of network engineers were told to construct a network with an effective utilization rate of 80%, the network they would construct would have *fewer* facilities in place today, with higher fill factors. Assuming hypothetically that SBC has an existing 600-pair cable that produces its current maintenance expense, an efficient, forward-looking network would likely only require a 300-pair network because of the higher fill factor. Because more of the facilities are filled with use, fewer of them are required and, with fewer facilities, SBC should incur less maintenance expense. (AT&T/Joint CLEC Ex. 1.2P, pp. 55-56) SBC's maintenance adjustment factor fails to recognize these reduced maintenance expenses. *Id.*

In sum, the Joint CLECs explained, SBC's Maintenance Factor Utilization Adjustment is unsupported (even by SBC's own data). It is unreasonable to assume that a linear relationship exists between utilization levels and maintenance expenses at the extremely low (and non-TELRIC-compliant) fill factors SBC uses in its cost studies. SBC's entire algorithm is theoretically and economically unsound and unreasonable and results in unwarranted cost increases. Accordingly, the Joint CLECs contend, the Commission should reject it and require SBC to deactivate it. (AT&T/Joint CLEC Ex.1.2, pp. 56-57)

c. SBC's ACF Model Understates the Non-Recurring Expense Associated with Customer-Generated Service Order Activity.

In calculating the maintenance expenses component of its ACFs, SBC failed to remove an appropriate amount of non-recurring expenses associated with customer-generated service order activity. SBC performed a study of outside plant service-order hours meant to identify the rearrangement and change expenses that are caused by customer-generated provisioning in response to customer service orders because SABC already recovers these expenses in its nonrecurring studies. This adjustment is identified as the Service Order Activity Adjustment ("SOAA"). AT&T/Joint CLEC Ex. 1.0, pp. 116-117.

Unfortunately, the information upon which SBC relied in calculating the amount of expense to remove is both outdated and contains no Illinois-specific data. Rather, it is based on 1998 data (not 2001 data) from Texas, Oklahoma, Kansas, Arkansas and Missouri. As the Joint CLECs indicated, to the extent service order activity has increased over time as a percentage of total expenses, the use of 1998 data understates the percentage of network expenses attributable to service order activity and, hence, understates the amount of expenses that should be removed from SBC's calculation of maintenance expenses. Moreover, to the extent competition is more

vigorous in Illinois than in these other states and a greater volume of service orders are generated, the Joint CLECs contend that the percentage of network expenses attributable to service order activity may be greater in Illinois.

As the Joint CLECs clearly showed, SBC has failed to demonstrate the reasonableness of its SOAA. In fact, given the fact that SBC's maintenance/service delivery expenses per access line dropped from 1998 to 2001 and its total revenue generated from service order activity increased by more than 30%, with wholesale service order activity increasing by more than 100%, SBC's SOAA likely significantly understates the percentage of Illinois expenses attributable to service order activities, thereby significantly understating the amount of maintenance expense SBC removed from its maintenance expense factor to avoid double recovery of maintenance expenses. Obviously, the Joint CLECs point out, SBC's 1998 SOAA analysis fails to accurately identify the percentage of total expenses attributable to service order activity today, or in the study period used by SBC in its ACF model. AT&T/Joint CLEC Ex. 1.0, pp. 117-120.

To rectify this error, the Joint CLECs relied on the fact that between 1999 and 2001, SBC Illinois's total service order-related revenue increased by nearly 30% and assumed that SBC's estimate understated service order related activities by at least 30%. The Joint CLECs recommend that the Commission order SBC to use this revised percentage to calculate its SOAA. AT&T/Joint CLEC Ex. 1.0, pp. 121-123.

2. Ad Valorem Tax Factor

The ad valorem tax factor is calculated as a ratio of book property tax expense to average book investment from the prior calendar year. SBC used average book investment as the denominator in calculating its Ad Valorem Tax factor. As the Joint CLECs testified, the use of average book investment is not a correct input because it understates the denominator, thereby overstating the ad valorem tax factor.

In fact, SBC uses current cost-to-book cost ("CC/BC") ratios to develop its maintenance and other expense, support assets, and shared and common costs factors. Therefore, in calculating its ad valorem tax factor, SBC must convert average book investment to a current cost basis to maintain consistency with the methodology it employs to calculate its other cost factors. This conversion increases book values to current replacement values. The Joint CLECs explained that the use of current cost to book cost ratios also ensures that a consistent relationship exists between the year expenses are incurred and the valuation date of the investment used to calculate the expense to investment cost factor. AT&T/Joint CLEC Ex. 1.0, pp. 125-127. The Joint CLECs recommend that the Commission order SBC to restate its book investment to current cost in the denominator of its ad valorem tax factor.

3. Capital Cost Factors

SBC uses its Capital Cost System ("CAPCS") to calculate capital cost factors. CAPCS incorporates inputs for cost of money, depreciation lives and income taxes into factors that are then applied against forward-looking investment to determine annual costs for plant investment. SBC uses two separate CAPCS models to calculate capital cost factors in this proceeding. The

first CAPCS model is embedded in SBC's Annual Cost Factor model and uses Illinois-specific inputs for cost of money, depreciation lives and income taxes to determine Illinois-specific capital cost factors. The second CAPCS model is used by SBC to determine the capital costs of SBC's support assets. SBC's support asset study utilizes support expense and investment from all five states in the former Ameritech region to determine the factors required to recover the costs of support assets. Consequently, the CAPCS model used to determine capital costs of support investments calculates composite capital cost factors that can be used in each of the five states in the Ameritech region. AT&T Ex. 1.0, pp. 99-101.

The Joint CLECs recommend that the Commission adopt the cost of capital inputs recommended by AT&T witness Terry Murray and the depreciation life inputs recommended by AT&T witness Michael Majoros to re-run the SBC Capital Cost System ("CAPCS") models. Ms. Murray recommended the use of a Weighted Average Cost of Capital (WACC) of 7.54% based on a cost of debt of 3.78%, a cost of equity of 9.46% and using a 33.88% debt to 66.12% equity structure. Mr. Majoros recommended the use of FCC-prescribed lives for SBC Illinois. AT&T/Joint CLEC Ex. 1.0, pp. 105-107.

For the reasons discussed in Sections III and IV above, the Joint CLECs recommend that the Commission should order SBC to use as inputs to its ACF and other factors the cost of capital recommendations of AT&T/MCI witness Terry Murray and to use the depreciation lives and future net salvage values proposed by AT&T/MCI witness Mike Majoros to rerun its capital cost factors.

B. Investment Factors

SBC's ACF model uses three investment factors to identify the amount of land, building and power equipment investment needed to support (or house) central office equipment. SBC also develops four investment factors to estimate the engineered, furnished and installed ("EF&I") costs for engineering, furnishing and installing general purpose computers, digital switch systems, operator systems and circuit equipment.

1. SBC's Failure to Remove Building and Land Leased to Collocating Carriers and Non-Affiliated Carriers

Building and land investment SBC leases to collocating carriers and non-affiliated entities represents building and land space that SBC does not use in its operations. SBC is already being compensated for this space in the form of rent; therefore, the Joint CLECs contend, it is not an expense that SBC ought included in calculating of its investment factors because to do so would lead to double recovery of these costs. To prevent double recovery, the Joint CLECs urge the Commission to require SBC to remove the investment associated with this space from its building and land investment factors consistent with the methodology contained in AT&T/Joint CLEC Ex. 1.0, Attachment MS/WF-10.

SBC contends that because CLECs do not sign formal leases for collocation space and SBC does not, therefore, know precisely how long the CLEC will continue to compensate SBC for that space, the Joint CLECs' adjustment should be rejected. (SBC Initial Br. at 251-252) SBC does not deny that including this space – for which it is already being compensated – in the

development of its investment factors double counts costs. The Commission has two choices: (1) to allow SBC to include this space, thereby guaranteeing double recovery; or (2) to adopt the Joint CLECs' adjustment to remove the double count, assume the CLEC will remain financially viable and continue to lease the collocation space from SBC, and compensate SBC for it. The Joint CLECs recommend that the Commission eliminate this known and undisputed double count.

Consistent with the Capital Cost Factors analysis, the Joint CLECs contend that SBC must also be required to revise its EF&I with Land, Building and Power factors consistent with the capital cost and expense factor adjustments recommended by Joint CLECs above and with the adjustments to the Land and Building factors, which flow into the EF&I factors.

2. SBC Double Counts MDF Investment

Joint CLECs contended that SBC has overstated investment in its cost studies by including main distribution frame ("MDF") investment as a direct separate investment input in its loop studies even though MDF investment is already a component of common equipment used in SBC's development of the Power & Common cost factor. AT&T/Joint CLEC Ex. 1.0, pp. 134-138.

As the Joint CLECs explained, to include MDF investment in SBC's Power & Common cost factor results in double counting of frame investment wherever frame investment is separately and distinctly identified in any of SBC's cost studies (e.g., loop studies). Consequently, the Joint CLECs point out that either the investment factor must be adjusted to remove MDF investment or the individual studies containing separate inputs for MDF investment must be adjusted to remove this investment. AT&T/Joint CLEC Ex. 1.0, p. 138.

Joint CLECs stated that SBC agreed in Texas to remove MDF investment in its development of the Power & Common investment factor and has offered to remove it here. AT&T/Joint CLEC Ex. 1.0, pp. 138-139. Consequently, the Joint CLECs recommend that the Commission require SBC to remove MDF investment included as a separate line item in any of SBC Illinois's cost studies to prevent double recovery of MDF investment.

3. Failure to Remove Non-Regulated Investment

Consistent with the earlier discussions and recommendations, the Joint CLECs recommend that non-regulated investment must be removed from SBC's investment factor calculations.

C. Support Asset Factors, including reclassification of support asset costs to common costs

Support assets factors represent the costs associated with support assets and certain other costs not otherwise associated with specific assets. AT&T/Joint CLEC Ex. 1.0, p. 142. Support asset factors are principally developed by SBC by summing support asset costs with the capital costs (i.e., depreciation, cost of money, and taxes) of the assets and dividing the total identified expenses by an appropriate denominator. SBC's inputs into the support assets factor study are developed using data from the five state Ameritech region and six other states in its region.

AT&T/Joint CLEC Ex. 1.0, pp. 144-145. SBC uses support asset factors to assign support asset costs to UNEs via the expense factors, the shared and common cost allocators and loaded labor rates. AT&T/Joint CLEC Ex. 1.0, p. 142-143.

1. Support Asset Costs Should Be Reclassified as Common Costs

The Joint CLECs observed that SBC's support asset costs are in the nature of common costs rather than direct costs; as such, they should be recovered in the common cost factor rather than as direct costs from UNEs (via the application of ACFs) and nonrecurring charges (via loaded labor rates). As the Joint CLECs explained, support assets are those assets not directly assigned to a specific cost object based on cost causation, and are generally comprised of the 21XX series of plant investment accounts, which primarily includes administrative buildings and general purpose computers (excluding mainframe and mid-range computers), as well as land, furniture, office equipment, artwork and motor vehicles. AT&T/Joint CLEC Ex. 1.0, p. 141; AT&T Cross Ex. 7; Tr. 317-319.

By their very nature, the Joint CLECs assert, SBC's support asset costs are really general assets/expenses used in providing the entirety of SBC's products and services, incapable of being reasonably allocated to any particular service or product. AT&T/Joint CLEC Ex. 1.1, p. 5. Even SBC, which allocates a portion of its support asset expenses to monthly recurring rates via ACFs, a portion to non-recurring rates via labor rates, and a portion to all UNEs via an allocation to common costs, was unable to directly allocate these costs to any particular group of products smaller than the total output of the company. Instead, according to the Joint CLECs, SBC arbitrarily allocated portions of support asset costs based largely upon its own unilateral discretion rather than according to cost-causation principles. Because these expenses are generally incurred in the normal course of SBC's business and are not directly related to the production of, or consumption of, any particular product or group of products, Joint CLECs contend that SBC's support asset expenses fall squarely within the definition of common costs. AT&T/Joint CLEC Ex. 1.1, p. 5.

Joint CLECs stated that SBC witness Mr. Barch revealed the weakness of SBC's position by acknowledging that SBC's methodology illogically allocates more support asset costs to an employee that earns more money than to an employee that earns less. Even Mr. Broadhurst, the Arthur Andersen employee that sponsored SBC's first shared and common cost study in Illinois, agreed, "it is likely that the capital-related costs of many general support assets would be classified as common costs." AT&T Cross Ex. 8; Tr. 322-323. They noted that the Indiana Commission recently agreed: "The Commission also finds that items included by SBC Indiana as support assets (e.g., land, buildings and computers) are long lived and not consumed by technicians as they perform their nonrecurring labor activities. Accordingly, they should not be included in labor rates." Indiana Order, p. 166.

The Joint CLECs therefore recommend that SBC be required to remove support asset costs from its ACFs (used as inputs to all recurring cost studies), its Service Order Computer Processing study (mainframe computer investment) and its loaded labor rates (used as a primary input into all non-recurring cost studies) consistent with the Joint CLEC recommendation contained in AT&T/Joint CLEC Ex. 1.1, pp. 1-14. To ensure that all of its General Purpose

Computer costs are recovered, SBC should add its mainframe and midrange computer investment and expense to its common costs.

2. Correction of Data Entry Errors

In the process of tracing SBC's support assets investment back to its source documentation, the Joint CLECs discovered that virtually all of the investment accounts contained incorrect values. SBC has agreed to correct these data entry errors, and Joint CLECs recommend that SBC be required to do so in the manner set forth in AT&T/Joint CLEC Ex. 1.0, pp. 147-149.

3. Application of Ms. Murray's and Mr. Majoros's Recommended Cost of Capital and Depreciation Lives

Joint CLECs urge that the capital cost inputs recommended by AT&T/MCI witness Ms. Murray and AT&T/MCI witness Mr. Majoros should be used to calculate the capital cost factors in the support asset factors study. AT&T/Joint CLEC Ex. 1.0, pp. 149-150.

4. Failure to Isolate Regulated Versus Non-Regulated Data

Consistent with their recommendations for shared and common costs, expense factors and land and network building factors, Joint CLECs recommend removing non-regulated costs from SBC's support asset factors calculations. Contrary to the results obtained by removing non-regulated investment and expense from all other factors, making this same adjustment in the support assets factors calculations increases the factors. This increase offsets the reduction that results from applying Ms. Murray's and Mr. Majoros's recommended capital cost factors. Consistency requires that this adjustment be applied uniformly throughout the SBC studies. AT&T/Joint CLEC Ex. 1.0, pp. 151-152.

D. Inflation/Deflation Factors

1. Inflation on Investment Overstates Capital Costs

SBC applies inflation on investment via a capital inflation factor in its recurring loop studies. This capital inflation factor is applied to the capital cost factors determined by the CAPCS model to produce capital cost factors with inflation. As the Joint CLECs demonstrated, inflation on investment overstates capital costs because, as AT&T/MCI witness Ms. Murray explained, the cost of money portion of capital costs already includes the effect of inflation. Applying cost of money factors to investment *and* applying a separate inflation factor therefore double-counts the impact that inflation has on investment. To prevent this double count, Joint CLECs recommend that SBC's capital cost inflation factors in its LoopCAT studies be set to a value of 1.000 to remove the effect of inflation on capital costs. AT&T/Joint CLEC Ex. 1.0, pp. 155-156.

2. Inflation on Expenses and Labor Rates Should Be Calculated Using the PPI, Not the CPI-W

SBC used the CPI for Urban Wage Earners and Clerical Workers (“CPI-W”) produced by the Bureau of Labor Statistics (“BLS”) to estimate the impact of inflation on its operating expenses and labor rates. Joint CLECs pointed out that according to the BLS, the best measure of inflation for a given application depends on the intended use of the data. AT&T/Joint CLEC Ex. 1.0, pp. 158-159. The CPI measures inflation experienced by consumers in their day-to-day living expenses (food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, etc.), while the Producer Price Index (PPI) measures inflation at earlier stages of the production and marketing process. AT&T Ex. 1.0, pp. 157-159.

According to the BLS, the target set of goods and services included in the PPI is the entire marketed output of U.S. producers. The set includes both goods and services purchased by other producers as inputs to their operations or as capital investment, as well as goods and services purchased by consumers either directly from the producer or indirectly through a retailer, while the target set of items included in the CPI is the set of goods and services purchased for personal consumption by urban U.S. households.

According to the Joint CLECs, since the purpose of this proceeding is to establish wholesale prices for inputs used by other producers of services, the PPI is the appropriate index to measure inflation on expenses should the Commission determine an inflation factor is appropriate. AT&T/Joint CLEC Ex. 1.0, pp. 159-160. Specifically, the Joint CLECs replaced SBC's CPI-W inflation factor with a PPI inflation factor of only 3.936% based upon a trend of PPI values for total manufacturing industries from 1989 – 2001. AT&T/Joint CLEC Ex. 1.0, pp. 160-161. The Joint CLECs recommend that if the Commission allows SBC to apply an inflation factor, it must ensure that SBC be directed to net this inflation factor against an appropriate productivity factor, as discussed below.

E. Productivity Offset

According to SBC, productivity gains are already captured by its cost studies through forward looking technology assumptions (technology substitution and lower equipment prices) and by restating investment from book cost to replacement cost. While the Joint CLECs agree that productivity is captured, in part, in SBC's cost studies, SBC's reliance on the benefits of lower equipment prices, technology substitution and restatement of investment to replacement cost only reflects the benefits of technology changes related to plant investment and fails to address the much broader spectrum of influences on productivity such as continual improvement in output per hour, increases in output due to restructuring of network and administrative processes to function with fewer employees, streamlined supply chains that lower the overall cost of procurement, capital investments in technology used by employees to do their jobs more efficiently, and improvements in management skills through training. These other aspects are particularly important, the Joint CLECs note, in light of the fact that the TELRIC methodology captures only those costs incurred in an efficient, forward-looking environment. (AT&T/Joint CLEC Ex. 1.0, pp. 162)-

Joint CLECs noted that SBC witness Mr. Barch admitted on cross examination that SBC's cost studies fail to take into account any of the short term or long term cost reduction initiatives SBC executives recently announced (November 2003) to the investor community (Tr. 363-369; see also SBC Ex. 7.2, pp. 33-34), including the recent elimination of nearly \$1 billion

in operations and support costs by workforce reductions and productivity improvements (AT&T/Joint CLEC Ex. 1.1, pp. 67-68) and major long term cost reduction initiatives, including consolidation of call and network centers, creation of one national customer service bureau rather than regional bureaus, consolidated nationwide technical support (rather than regional support), automation of outside plant records and more efficient technician routing designed to save 30 million road miles and 750,000 technicians annually. AT&T/Joint CLEC Ex. 1.2, pp. 69-70. According to SBC executive Mr. Atterbury, these improvements will collectively save SBC \$1.3 billion in annual capital and expense by 2006, none of which is incorporated in SBC's cost studies. AT&T Ex. 1.2, p. 70-71; Tr. 363-369; SBC Ex. 7.2, pp. 33-34.

SBC, in its Initial Brief, contends that it could not reflect these adjustments in its cost studies because they cannot be precisely quantified. (SBC Initial Br. at 256-257) Joint CLECs stated that SBC's arguments must be rejected for several reasons. First, SBC does not deny that these initiatives will occur; in fact, SBC witness Mr. Barch – the sponsor of the cost study – indicated that the SBC executives “certainly” would have made sure SBC intended to make these productivity improvements before revealing them to Wall Street. (Tr. 365-366) Second, by their very nature, cost studies involve the use of subjective expertise, judgment and estimation (e.g., SBC's allowance method for estimating year end uncollectibles). The fact that SBC had no “hard and fast” numbers is no excuse to wholly exclude known and planned productivity improvements. Finally, and perhaps most obviously, SBC was unable to quantify these planned productivity improvements because SBC witness Mr. Barch, the sponsor of the shared and common cost study, failed to ask for a quantification or, for that matter, any details. As Mr. Barch testified on cross examination, he had no discussions with the executives and teams planning the improvements (Tr. 366), he made no attempt to ascertain the details and granularity underlying the planned productivity initiatives (Tr. 367-368) and, remarkably, the extent of his knowledge about them is *what he read in the testimony of Joint CLEC witnesses Mr. Starkey and Mr. Fischer*. (Tr. 368) Joint CLECs stated that it is no wonder that Mr. Barch did not have the necessary detail; he never bothered to find out (and no one else at SBC, apparently, undertook to provide it to him).

Moreover, Joint CLECs pointed out, when asked to identify where its cost studies accounted for productivity gains due to workforce restructuring/reductions and productivity gains due to fewer labor hours required to maintain its network, SBC indicated that it had not performed those analyses. (AT&T/Joint CLEC Ex. 1.2, pp. 68-69) According to the Joint CLECs, there is no question that SBC has failed to account for productivity gains it will experience from its workforce reductions and its consolidation efforts. Thus, Joint CLECs recommend, if SBC is allowed to apply an inflation factor, an explicit productivity factor of 8.804% is necessarily required. See AT&T/Joint CLEC Ex. 1.0, Attachment MS/WF-17; AT&T/Joint CLEC Ex. 1.0, pp. 164-165. As the Joint CLECs explained, their net productivity adjustment is conservative because it is based on SBC's historical financial data and does not reflect any specific forward-looking adjustments to expenses, does not compare SBC's operational practices with any best in class or “best practices” benchmarks and is conservative when compared to overall telecommunications productivity trends. AT&T/Joint CLEC Ex. 1.0, pp. 165-168.

In sum, the Joint CLECs recommend that the Commission prohibit SBC from applying and inflation factors since it has not factored in productivity, consistent with the recent order of

the Indiana Commission, which agreed that SBC's reliance on the benefits of lower equipment prices, technology substitution and restatement of investment to replacement cost only reflects the benefits of technology changes related to plant investment and fails to address the much broader spectrum of influences on productivity. Indiana Order, p. 154. If, however, the Commission allows SBC to apply an inflation factor, the Joint CLECs request that the Commission require SBC to apply the Joint CLECs' recommended productivity offset.

F. Depreciation and Net Salvage

The Joint CLECs urge the Commission to adopt the depreciation and net salvage recommendations of AT&T/MCI witness Mr. Majoros, discussed above in Section III, B. 2, to calculate its Annual Charge Factors and Other Factors.

VII. IMPUTATION AND PRICE SQUEEZE

A. Introduction And Summary Of Recommendation

The Joint CLECs argue that a critical issue that the Commission must address in this proceeding is the applicability of the imputation requirements of the PUA and the Commission's rules to SBC's proposed rate increases that are the subject of this proceeding. The Joint CLECs observed that the Commission will need to determine how or if violations of the PUA and the Commission's rules can be cured should SBC's proposed rates (or any proposed rates) fail the imputation requirements of the PUA and the Commission's rules, noting that the requirement in the Commission's rules that such a determination must be made within 120 days of the initiation of a Section 9-201 investigation was deemed by the ALJ to have been extended by an agreement of the parties. The Joint CLECs maintain that the imputation requirements of the PUA and the Commission's rules clearly are triggered by SBC's proposed UNE loop and associated nonrecurring charge rate increases. Joint CLECs further submit that SBC's proposed rates, as originally proposed and as most recently adjusted by SBC, fail by significant margins even a conservative imputation test for SBC's business Network Access Lines ("NALs"). According to the Joint CLECs, the only way that the Commission can approve increases in SBC's UNE Loop rates is if, at a minimum, SBC's business NALs pass an imputation test. According to the Joint CLECs, the General Assembly has constrained SBC's ability to raise rates for business NALs until July 2005. (220 ILCS 5/13-502.5) As a result, Joint CLECs contend, the only available method to cure a violation of the imputation requirements of the PUA and the Commission's rules is to lower SBC's UNE loop rates until they pass an imputation test.

In addition, Joint CLECs assert that while it is clear that SBC believes that its residential NALs are competitive, to date SBC has not sought to reclassify its residential NALs as competitive. When it does, Joint CLECs aver that SBC will be required to pass an imputation test for residential NALs. Notwithstanding the current classification of SBC's residential NALs as noncompetitive, Joint CLECs urge the Commission to recognize the competitive impact that SBC's proposed UNE loop rate increases will have on the retail residential local service market in Illinois. According to Joint CLECs, if SBC is allowed to raise its wholesale rates for unbundled loops now and subsequently seeks to reclassify its residential retail services as competitive, SBC will then be required to pass an imputation test which will necessarily cause SBC's residential retail rates to increase. Consequently, Joint CLECs warn that not only will any increase to SBC's wholesale rates make it more difficult for competitors to provide local services in competition with SBC, but the increases will require SBC to raise its retail residential rates so that it can pass the imputation tests required by the PUA and the Commission's rules.

Joint CLECs contend that the record demonstrates that SBC's proposed unbundled loop rates are higher than SBC's residential retail rates. Joint CLECs argue that if SBC's proposed unbundled loop rates and nonrecurring charges are approved and implemented, CLECs will be squeezed out of the residential retail market because their costs of leasing UNE loops from SBC, which they need to be able to provide local service, will be higher than the rates that SBC charges its residential retail customers. A proper analysis of the price squeeze impacts of SBC's proposed rate increases in this proceeding leads to the conclusion that SBC's rate increase proposals may make it economically prohibitive for CLECs to provide residential service and/or may substantially impede or CLECs ability to provide such service, which the Joint CLECs

declare provides additional bases for rejecting SBC's inflated proposed unbundled loop rates and nonrecurring charges.

B. SBC's Business Network Access Lines Are Subject To Imputation

Joint CLECs posit that the PUA and the Commission's rules contain imputation requirements that are designed to protect competition, noting that Section 13-505.1 of the PUA and Code Part 792 (83 Ill. Admin. Code 792), which apply only to those telecommunications carriers that provide both competitive and noncompetitive services, require the filing of an imputation test with respect to all competitive services that rely on noncompetitive services or noncompetitive service elements for the provisioning of the competitive service. Part 792 sets forth the rules governing the filing and performance of any such imputation test and Section 13-505.1, which provides the statutory basis for Part 792, provides in pertinent part:

. . . If a carrier provides noncompetitive services or noncompetitive service elements to other telecommunications carriers for the provision by the other carriers of competitive services, switched interexchange services, or interexchange private line services or to other persons with which the telecommunications carrier also competes for the provision by those other persons of information or enhanced telecommunications services, as defined by the Federal Communications Commission, then the telecommunications carrier shall satisfy an imputation test for each of its own competitive services, switched interexchange services, or interexchange private line services, that utilize the same or functionally equivalent noncompetitive services or noncompetitive service elements. (220 ILCS 5/13-505.1(a))

Joint CLECs observe the foregoing section further provides that “[t]he purpose of the imputation test is to determine whether the aggregate revenue for each service exceeds the costs, as defined in this Section, to be imputed for each service based on the telecommunications carriers’ own routing arrangements.”

According to Joint CLECs, the reference to “aggregate revenue” essentially is a reference to “price.” The “costs” to be imputed, in turn, “shall be defined as the sum of: (1) specifically tariffed premium rates for the noncompetitive services or noncompetitive service elements, or their functional equivalent, that are utilized to provide the service; (2) the long-run service incremental costs [“LRSICs”] of facilities and functionalities that are utilized but not specifically tariffed; and (3) any other identifiable, long-run service incremental costs associated with the provision of the service.” (220 ILCS 5/13-505.1(a)) Joint CLECs derive from these requirements that the general purpose of the test is to ensure that retail prices for a competitive service properly exceed imputed costs where a single carrier provides the competitive services at retail, and wholesale inputs are used by other carriers to compete in the retail markets for the associated services.

In addition, Part 792 of the Commission's rules (Imputation) clarifies the situations in which imputation tests must be satisfied. Section 792.30(c)(3) explicitly establishes the circumstances under which imputation requirements must be met:

Circumstances under which [imputation] tests shall be filed include, but are not limited to, the following:

* * *

3) When any tariff is filed that increases rates for a noncompetitive service or a noncompetitive service element, or its functional equivalent, which is utilized in providing a service subject to imputation.

Joint CLECs assert that it is clear that the requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules apply in this proceeding. It cannot be disputed, contend Joint CLECs, that SBC Illinois provides both competitive and noncompetitive services. Nor can it be disputed, Joint CLECs claim, that SBC Illinois provides noncompetitive service elements, including unbundled loops, to other telecommunications carriers for the provision by the other carriers of competitive services, switched interexchange services, or interexchange private line services. Joint CLECs state that SBC's UNEs, including its unbundled loops, are noncompetitive service elements (or their functional equivalent) sold to competing carriers, who use these as inputs to enable provision of their own competing retail services. Statutory references to "...noncompetitive service elements..." and "...their functional equivalent..." directly encompass UNEs, including unbundled loops. Moreover, Section 13-502.5(b) mandated that SBC Illinois' business access lines are competitive under the PUA. 220 ILCS 5/13-502.5(b)) Consequently, Joint CLECs maintain that the PUA and the Commission's rules require that SBC Illinois "shall satisfy an imputation test for each of its own competitive services, switched interexchange services, or interexchange private line services, that utilize the same or functionally equivalent noncompetitive services or noncompetitive service elements." (220 ILCS 5/13-505.1(a))

Joint CLECs disagree with SBC's contention the imputation requirements of Section 13-505.1 of the PUA and Part 792 do not apply to its proposed unbundled loop rate increases in this case. Joint CLECs take issue with SBC's argument that 13-505.1 does not apply to UNEs at all because those imputation requirements are triggered only when SBC provides "services" or "service elements" to its competitors. Joint CLECs contest SBC's claim that its position is supported by the FCC's has determination that UNEs are not services and that Section 13-505.1 of the PUA was enacted in 1992, prior to the requirement that ILECs lease UNEs as contemplated by the federal Telecommunications Act of 1996. Joint CLECs also disagree that SBC's position is supported by the definition of "network element" in Section 13-216 – added to the PUA in 2001 -- which refers to a "facility or equipment," not "service elements" that are referred to in Section 13-505.1.

Joint CLECs argue that SBC's position is wrong as a matter of law and if accepted would render the imputation requirements of Section 13-505.1 and Part 792 of the Commission's rules (83 Ill. Adm. Code Part 792) meaningless. First, Joint CLECs agree with Staff's position that SBC's proposed rate increases and the unbundled loops at issue in this docket are properly classified as "service elements," noting that network elements, including those that are defined in Section 13-216 of the PUA, are clearly covered by the PUA's definition of "telecommunications service," which within the meaning of the PUA is:

[T]he provision or offering for rent, sale or lease, or in exchange for other value received, of the transmittal of information, by means of electromagnetic, including light, transmission with or without benefit of any closed transmission medium, **including all instrumentalities, facilities, apparatus, and services** (including the collection, storage, forwarding, switching, and delivery of such information) used to provide such transmission and also **includes access and interconnection arrangements and services.** 220 ILCS 5/13-203 (emphasis added))

Based on the plain language of the statute, Joint CLECs argue that it is clear the General Assembly intended to include wholesale products and services within the meaning of “telecommunications services.” Thus, Joint CLECs aver, UNEs clearly fall within the ambit of “noncompetitive services ... utilized to provide the service subject to imputation.”

Moreover, Joint CLECs state that the definition of “network element” contained in Section 13-216 of the PUA is not limited in the fashion that SBC suggests. It provides as follows:

“Network element” means a facility or equipment used in the provision of a telecommunications service. The term also includes features, functions, and capabilities that are provided by means of the facility or equipment, including, but not limited to, subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service. (220 ILCS 5/13-216 (emphasis added))

Network elements are clearly encompassed within the PUA’s definition of telecommunications service, and the PUA’s definition of network element does nothing to change that. In fact, viewed in its entirety, the PUA’s definition of network element makes clear that features, functions and capabilities or other provision of telecommunications service fall within its parameters. SBC’s contention to the contrary is unpersuasive.

Furthermore, Joint CLECs contend SBC’s position on the applicability of the imputation requirements in this case it is contrary to the position that SBC took in the rulemaking proceeding in Docket 99-0535 in which the Commission revised its Part 792 imputation requirements. (*Revision of 83 Ill. Admin Code Part 792*, Docket 99-0535, Order, June 19, 2002, 2002 Ill. PUC LEXIS 565 (“Imputation Rule Order”)) In that case, SBC (then Ameritech) acknowledged that UNEs, such as unbundled local switching, are subject to imputation requirements. Joint CLECs cite the Commission’s summary of SBC’s position on this issue as follows:

Ameritech claims the purpose of an imputation test is to protect competitors from a price squeeze who are actually purchasing a noncompetitive element from Ameritech. In its reply brief, without citation to the record, Ameritech asserts that in Illinois today, many competitors have introduced their own switches; that these switch-based competitors do not rely on Ameritech’s network to provide service to their customers; and that, as a result, imputation tests are becoming

increasingly irrelevant as arbiters of fair competition because noncompetitive Ameritech tariff rates are not being paid by competitors to provision their own competitive service. Ameritech believes it is important for the Commission to reflect this “reality” in its imputation test requirements. Ameritech claims the Commission can do so by providing in its rule that only noncompetitive elements and services actually relied upon by competitors in provisioning their own competitive services need be reflected in an imputation test. (Imputation Rule Order at *62-*63)

Based on that concern, SBC proposed language to reflect the fact that the imputation of a rate for such a network element should only be required if the competitor actually uses it to provide its own competitive services, suggesting the Commission include in its rule the following language to achieve that objective:

When any tariff is filed that increases rates for a noncompetitive service or a noncompetitive service element, or its functional equivalent, which is utilized by a competitor in providing a service subject to imputation. (Imputation Rule Order at *60-*61 (emphasis added).)

Joint CLECs contend that SBC’s position in Docket 99-0535 was that its proposed change would ensure that imputation applies only in situations for which SBC believed that competitors truly needed the protections provided by the imputation test – in SBC’s view only, where the CLECs actually utilize particular services or network elements in competing with the retail service provided by SBC. As Joint CLECs noted, the Commission rejected SBC’s attempt to narrow the reading of its imputation requirements, finding that “. . .an imputation test is intended to prevent an anti-competitive price squeeze with respect to services or service element that are or may be used by a competitor, not just to protect only those competitors who are currently using such services or service elements.” (*Id.* at *113-*114)

In addition, Joint CLECs noted that SBC’s own actions with respect to the recently enacted and enjoined SBC wholesale rate increase law (SB 885) make it clear that SBC acknowledges that the imputation requirements apply to its proposed increases in unbundled loop rates. As Joint CLECs pointed out in their Initial Brief, Section 13-408(d) of the PUA enacted by SB 885 explicitly excluded the application of Section 13-505.1 to the drastic unbundled loop rate increases that resulted from the implementation of that now permanently enjoined law. Section 13-408(d) provided that the unbundled loop rate increases could not cause corollary increases in SBC’s retail rates, thereby precluding application of the imputation requirements contained in Illinois law that would have otherwise applied to the wholesale rate increases mandated by SBC Section 13-408. The imputation exemption language would not have been included in Section 13-408(d) of the SBC automatic wholesale rate increase law unless SBC understood that the imputation requirements would apply to NALs.

Specifically, Joint CLECs recounted that SBC, in attempting to achieve automatic wholesale rate increases, pursued and ultimately prevailed in getting the General Assembly and the governor to enact Sections 13-408 and 13-409 of the PUA effective May 9, 2003. (220 ILCS 5/13-408 and 13-409) Joint CLECs noted that the provisions of Section 13-408 essentially doubled the rates for SBC’s wholesale unbundled loops, without any prior hearing or analyses of

the merits of the rate increases, that competitors must purchase to offer service to residential consumers. In order to ensure that the drastic rate increases could be implemented unimpeded by the imputation requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules, Section 13-408 of the SBC automatic wholesale rate increase law specifically insulated those wholesale rate increases from causing any corollary increases in retail rates, thereby eviscerating the imputation requirements contained in Illinois law. Specifically, Section 13-408(d) provided as follows:

Notwithstanding anything to the contrary contained in Section 13-505.1 of this Act, unbundled network element rates established in accordance with the provisions of this Section shall not require any increase in any retail rates for any telecommunications service.

According to Joint CLECs, Section 13-408(d), which was enacted by the General Assembly and the governor at SBC's behest, eviscerated the "price squeeze" protections of the imputation requirements contained in Illinois law so that competitors -- had the law withstood legal challenge -- were faced with paying more for unbundled loops than SBC charged its business retail customers for business NALs (*i.e.*, services which were and are plainly subject to imputation). Joint CLECs point out that Section 13-408 was proposed and enacted after SBC had filed its proposed unbundled loop rate increases in this case in December 2002 and after SBC had acknowledged that its business NALs fail an imputation test. Joint CLECs assert that SBC crafted Section 13-408(d) to eliminate the problems caused by the imputation requirements of Illinois law when SBC's unbundled loop rates are dramatically increased. By eliminating the consequences of the imputation requirements, Joint CLECs posit that Section 13-408 ensured that SBC could drastically raise wholesale rates without having to raise its retail rates, thereby putting CLECs in a price squeeze and pushing them out of the market. Joint CLECs argue that Section 13-408(d), as sponsored and supported by SBC, constitutes clear and convincing evidence that the imputation requirements of Section 13-505.1 and Part 792 of the Commission's rules do apply to business NALs.

For all of these reasons, Joint CLECs urge the Commission to reject SBC's contention that the imputation requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules do not apply in this case.

C. SBC's Business NALs Fail To Satisfy Imputation Requirements Utilizing SBC's Proposed Unbundled Loop Rates

Joint CLECs draw attention to the imputation test that SBC conducted of its business NALs for the purpose of supporting the tariff SBC filed proposing increased unbundled loop rates and nonrecurring charges for unbundled loops, UNE-P, new UNE-P and EELs that are the subject of this proceeding. (MCI Cross Ex. 2-P (SBC – Illinois Network Access Line Imputation Cost Study dated 12/20/02) ("SBC 12/20/02 Imputation Analysis")) That imputation test formed the basis of SBC witness Mr. Panfil's testimony which candidly acknowledges that SBC's business NALs fail an imputation test when SBC's proposed unbundled loop rates are imputed to SBC's business NAL. (Tr. 179, 181-82; SBC Ex. 1.0, pp. 23-24)

Joint CLECs acknowledge that there has been much debate about the appropriate manner in which an imputation analysis should be conducted. Nevertheless, they declare that record is clear that SBC's 12/20/02 Imputation Analysis is conservative, i.e., that SBC conducted its 12/20/02 Imputation Analysis in a manner that put SBC's proposed rate increases in the light most favorable to SBC. In this vein, Joint CLECs point to the fact that while SBC assumed that it would receive revenues related to line connection and service order charges for business NALs 100 percent of the time, the record shows, in fact, that SBC waives service order and line connection charges for its business NAL services on a regular basis. (MCI Cross Ex. 3) In addition, SBC's imputation test assumes a "location life" which is more than twice the location life – i.e., the average time that a business NAL customer keeps his or her line in service – than the location life that SBC assumes for purposes of its cost studies. SBC's imputation study also imputes a lower cost for ports than the \$2.18 tariffed rate that CLECs pay to SBC for an unbundled switching port to provide local service. (Tr., pp. 183-84) All of these things, Joint CLECs contend, demonstrate that SBC's imputation analysis significantly inflates the revenues that SBC actually receives for business NALs, which makes it appear that SBC is closer to passing an imputation test than it actually is.

Joint CLECs aver that even though SBC's imputation analysis is demonstrably conservative, the results of its imputation test are stark and damning. Joint CLECs note that despite its attempts to paint SBC in the most favorable light, SBC's 12/20/02 imputation analysis demonstrates that using unbundled loop rates as originally proposed by SBC (\$11.62, \$23.23, and \$26.85 for unbundled loops in access areas A, B and C, respectively) SBC's business NALs exceed total revenues for SBC's business NALs by significant negative margins in each respective access area. (Tr. 212; MCI Cross Ex. 4-P, p. 1) Even under SBC's adjusted proposed rates (\$9.03, \$17.82, and \$20.56 for unbundled loops in access areas A, B and C, respectively), Joint CLECs proved that under SBC's 12/20/02 imputation analysis the total imputed costs for SBC's business NALs exceed total revenues for SBC's business NALs causing SBC to fail the imputation test for access areas A, B and C by significant negative margins. (Tr. 212; MCI Cross Ex. 4-P, p. 2)

Moreover, Joint CLECs point out that using Staff's more reasonable proposed unbundled loop rates (\$4.97, \$8.62, and \$10.94 for unbundled loops in access areas A, B and C, respectively), Staff's proposed loop rate for access area B fails SBC's 12/20/02 imputation analysis. Indeed, the record reflects that the only scenarios in which SBC's business NALs would pass SBC's imputation test are when SBC's imputation test utilizes existing unbundled loop rates (\$2.59, \$7.07, and \$11.40 for unbundled loops in access areas A, B and C, respectively), unbundled loop rates lower than the existing unbundled loop rates, or Staff's proposed loop rates for access areas A and C. (Tr. 216-17; MCI Cross Ex. 4-P, p. 3-4)

Based on SBC's conservative 12/20/02 imputation analysis, the record reflects that SBC's business NALs fail imputation test by substantial margins, whether SBC's original proposed rates or its adjusted rates are utilized as inputs to the test. Conversely, if existing unbundled loop rates, unbundled loop rates that are lower than the existing rates, or Staff's proposed rates for access areas A and C are utilized in SBC's imputation test, SBC's business NAL pass SBC's conservative imputation test. For these reasons, Joint CLECs assert that SBC's proposed rates must be rejected and that SBC's unbundled loop rates cannot be increased beyond the point of which those rates begin to fail the imputation test.

Joint CLEC disagree with SBC's argument that if imputation does apply in this case, it should not apply in the manner that Staff and the Joint CLECs suggest. Joint CLECs take issue with SBC complaint that an imputation test should not be required for a stand-alone business NAL as Staff and the Joint CLECs contend. Joint CLECs contend that this argument is belied by the fact that SBC conducted just such an imputation test at the request of SBC witness Eric Panfil for the express purpose of supporting its proposed unbundled loop rate increases. (MCI Cross Ex. 2-P; Tr., pp. 179, 181-82)

Moreover, Joint CLECs emphasize that SBC's 12/20/02 Imputation Analysis did not include revenue from central office features, local calling and switched access to interexchange carriers, which SBC appears to now claim are appropriately included in an imputation analysis. Thus, according to Joint CLECs, the record again demonstrates that SBC's actions are inconsistent with the arguments that it advances with respect to imputation. While Joint CLECs do not agree that SBC's 12/20/02 Imputation Analysis reflects an appropriately conducted imputation analysis in all respects, it does correctly focus on determining whether SBC's business NAL revenues exceed the imputed costs of providing that service. Joint CLECs argue that SBC obviously conducted what it believed to be an appropriate imputation analysis in support of its filing and, therefore, SBC should not now be heard to complain that its own approach was inconsistent with the imputation requirements of the PUA and the Commission rules.

Joint CLECs also disagree with SBC's characterization of what SBC refers to as the "dire retail rate consequences" that SBC asserts would result from what it calls the very narrow, and inappropriate, UNE loop/port-to-business network access line form of the analysis that Staff and the Joint CLECs urge the Commission to adopt. SBC's arguments are unpersuasive, Joint CLECs posit, because they focus solely on what the result of the imputation tests would be if the Commission adopted SBC's proposed rate increases, and ignores entirely the fact that another option exists – namely, that a violation of the imputation requirements can be cured either through retail rate increases, noncompetitive wholesale service element decreases, or some combination thereof. The Joint CLECs state that they are not advocating that the solution to SBC's imputation problem is necessarily a general retail rate increase. Rather, the appropriate remedy is to set the wholesale rates at levels that are appropriate.

Joint CLECs claim that despite the flexibility for curing imputation violations that is built into Section 13-505.1 of the PUA, SBC puts all of its eggs in one basket and puts the Commission, yet again, in the position of having to accept or reject SBC's all or nothing proposal. Joint CLECs fault SBC for decrying the harmful consequences of having to increase its retail rates, intimating that the Commission should not allow that to happen and should instead adopt a course that would allow SBC to significantly increase nonrecurring service elements without having to commensurately increase its retail rates, just as the now enjoined Section 13-408(d) would have done. Joint CLECs contend that SBC's proposal would, of course, force the Commission to ignore the stark reality that the imputation requirements force it to consider. However, contend Joint CLECs, the Commission cannot shirk the statutory requirements imposed upon it by 13-505.1 of the PUA.

Joint CLECs also take issue with the SBC imputation approach that SBC advocated later in this proceeding, under which the imputation test is morphed into some form of a business case

analysis in which all potential revenues associated a customer's access line(s) are taken into consideration. Joint CLECs label this recommendation is disingenuous and urge the Commission to reject it for a number of reasons.

First, Joint CLECs claim that the objective of the statutory imputation test is to see if there is a sufficient margin between the wholesale (UNE rates) and retail rates so that an efficient carrier using SBC's UNEs can operate viably (which is the same as seeing whether the proposed wholesale rates constitute a price squeeze.) The imputation analyses conducted by Staff, Joint CLECs and SBC's Network Access Line Imputation Cost Study all demonstrate that that SBC's proposed rates cause SBC's retail rates to fail that test. In other words, the margins are too small to permit economically viable competition by means of UNEs. The solution to this problem is not – as proposed by SBC -- to broaden the analysis and to bring in additional revenues from other retail services.

Second, Joint CLECs assert that SBC's newly found approach assumes that all CLECs have the same business plan and target the same set of customers with the same preferences for vertical features and other services. This is of course not true. Further, if the Commission were to be swayed by SBC's reasoning it would fall into the trap of creating a self-fulfilling prophecy in which CLECs would in effect be forced to select customers with the profile that SBC used in its "profitability analysis." Joint CLECs believe that this would be creating a "market place" dynamic that is inconsistent with the vision of the Telecommunications Act of 1996. In addition, it would, according to Joint CLECs, limit the competitive options for CLECs so drastically that it may fundamentally undermine all competitive development. For all of these reasons, the Joint CLECs urge the Commission to reject SBC's arguments not to apply imputation requirements of Section 13-505.1 and Part 792 and further reject SBC's arguments concerning the form such imputation requirements should take and how they should be applied.

With respect to Staff's position, Joint CLECs disagree with Staff's position that it is inappropriate to include imputed costs associated with retail related expenses and nonrecurring costs and revenues in a properly conducted imputation analysis. Joint CLECs contend that Staff's position is based on a narrow legalistic reading of Section 13-505.1 (and Code Part 792). Joint CLECs claim that such a position is dangerous and may defeat the overall purpose of the various sections that are concerned with competitive safeguards. The objective of an imputation test, contend Joint CLECs, is to determine whether the relationship between the ILEC's wholesale rates and retail rates is reasonable. Specifically, the objective is to determine whether there is a reasonable margin between wholesale rates, faced by dependent competitors, and the retail rates against which those dependent competitors must compete. The notion according to Joint CLECs is that a company with market power, such as SBC, is able (in the absence of regulatory oversight) to squeeze that margin so narrowly that an efficient but dependent competitor cannot viably compete. Joint CLECs posit that all of this is rudimentary economics and all of this is pertinent to the current proceeding *whether or not* it is codified in the Section 13-505.1.

In support of this position, Joint CLECs recite the purpose of an imputation test as recognized by SBC's processor Ameritech in the proceeding in which the Commission revised its imputation rules:

As a preliminary matter, Ameritech asserts that the purpose of Part 792 and imputation tests in general, is to prevent price squeezes. Ameritech states that imputation tests use the rates, where appropriate, charged to other carriers, to ensure that a carrier does not anti-competitively increase the price of a noncompetitive service required and used by a competitor to provide competitive service to give itself a competitive advantage in a downstream product. Ameritech claims that imputation also prevents an ILEC from pricing a competitive service so low that an equally efficient provider, who must buy some components from an ILEC, cannot afford to match its price. (Imputation Rule Order at *25-*26)

Joint CLECs disagreed with the two grounds that Staff cited as the bases of its objections to Dr. Ankum's inclusion of retail related expenses in the imputation test on costs on two grounds. First, Staff contends that such retail related costs are common costs, which are not identified in Section 13-505.1 or Commission Code Part 792 as related to, or properly included in, imputation tests. Second, Staff claims that this inclusion equates to an improper guarantee, via imputation, of a contribution margin for CLECs (those using SBC UNE loops to provide retail business access line services).

Joint CLECs contend that Staff's objections are misplaced. First, Joint CLECs argue, Section 13-505.1 of the PUA expressly states that imputation should include tariffed rates of noncompetitive service element inputs plus “. . . any other identifiable, long-run service incremental costs associated with the provision of the service.” Joint CLECs submit this clearly contemplates retail related costs are part of SBC's retail services and, as such, the imputation statute provides that they should be accounted for.

As to Staff's second objection -- that inclusion of retail related costs amounts to “an improper guarantee, via imputation, of a contribution margin for CLECs (those using SBC UNE loops to provide retail business access line services)” – Joint CLECs state that this begs the question of what the purposes of an imputation rule requirement are. While Joint CLECs agree that imputation requirements should not be a blanket “guarantee” that *any* CLEC can compete profitably, it should be a guarantee that an efficient CLEC using unbundled loops leased from SBC can provide retail service and *not be precluded from doing so in an economically viable manner*. Joint CLECs pose the question, if the imputation rule in Staff's mind does not serve this purpose, then what purpose does Staff believe is served by this rule? Joint CLECs argue that to leave out certain cost components in comparing revenues with costs is to create an illusion that revenues are adequate to cover costs when in fact they may not be. While Joint CLECs agree that the results of the imputation analysis are disturbing, Joint CLECs do not believe – as Staff appears to – that altering the imputation analysis to achieve more palatable results is the answer. The question of whether there is a sufficient margin between wholesale rates and retail rates (so that an efficient CLEC can use UNEs to compete in Illinois) is the most important issue before this Commission. If the answer to this question is yes, then competition is possible in Illinois; if the answer is no, then competition is doomed. Joint CLECs believe that the Commission deserves to have all the facts and figures to evaluate this question. To omit the retail related expenses from the imputation test, as suggested by Staff, is to leave out real costs, incurred by real companies, in the real world. Joint CLECs believe providing anything less would present the Commission with an incomplete analysis.

Joint CLECs also disagree with Staff's criticism of Dr. Ankum's inclusion of nonrecurring charges and revenues in the imputation test. The Joint CLECs' reasons for including these costs are the same as those stated above: to provide the Commission with an accurate picture of whether or not an efficient CLEC can use SBC's UNEs to compete on an economically viable basis in Illinois. Again, to leave out certain costs that even the most efficient carrier – including SBC itself -- will incur is to present incomplete or misleading information to the Commission about whether the margin between wholesale and retail rates is sufficient to permit competition in Illinois.

As for the claims that, in Staff's words, the "impact on SBC's retail revenue of allowing Dr. Ankum's proposed nonrecurring charges and retail related expenses into the imputation test are staggering," the Joint CLECs note that this observation is hardly a reason to vilify the messenger, Dr. Ankum. The Joint CLECs concur that the results of the imputation tests are ominous. However, this does not mean that the Commission should ignore the fact that the implications of SBC's proposed rate increases. Rather, the Commission must squarely face what the Staff, Joint CLECs and SBC's 12/20/02 Imputation Analysis – that SBC's proposed line rate increases, if approved, would either (i) necessitate significant retail rate increases, or (ii) deal a devastating blow to the competition the Commission has labored so hard to make a reality in Illinois. For these reasons, Joint CLECs urge the ALJs and the Commission to reject Staff's criticisms of Dr. Ankum's imputation analyses.

D. SBC Cannot Lawfully Raise Business NAL Rates To Satisfy The Imputation Test Until July 2005; SBC's Unbundled Loop Rates Can Only Be Raised To The Extent That Business NALs Based On Current Rates Pass An Imputation Test

Joint CLECs contend that SBC cannot lawfully raise business NAL rates to satisfy the imputation test until July 1, 2005. As a result, Joint CLECs maintain, SBC's unbundled loop rates and associated nonrecurring charges can only be raised to the extent that SBC's business NALs pass a properly performed imputation test based on current business NAS rates. In support of this position, Joint CLECs observe that section 13-502.5(b) of the PUA capped rates as of May 1, 2001 that SBC can charge business customers with four or fewer lines, and that rates charged to those customers cannot exceed those rates until July 1, 2005. mid-year 2005. (220 ILCS 5/13-502.5(b) (emphasis added))

Joint CLECs contend that the General Assembly was aware of the imputation requirements of Section 13-505.1 of the PUA when Section 13-502.5(b) was enacted and became effective June 30, 2001, so it must be presumed that the General Assembly was fully aware of the impact that the enactment of 13-502.5 would have on SBC's ability to raise UNE rates.

Joint CLECs posit that violations of the imputation requirements of 13-505.1 and Part 792 can be cured in two ways: either the rates for the noncompetitive services or noncompetitive service elements that are utilized to provide SBC's competitive service must be reduced, or the rates for its competitive retail services that utilize those noncompetitive elements must be increased until the imputation requirements are satisfied. Because business NAL rates for SBC's business customers with four or fewer lines are capped until July 1, 2005, contend Joint CLECs, those rates cannot be raised in order to satisfy the imputation requirements of Illinois law.

Consequently, Joint CLECs assert that until July 1, 2005, any proposed increases in wholesale UNE rates are constrained by SBC's existing business NAL rates. In other words, Joint CLECs argue that regardless of the merits of any proposed increase in SBC's unbundled loop rates, SBC's wholesale UNE rates can only be raised to the extent that its existing business NAL rates pass an imputation test. Because SBC's business NAL rates fail even SBC's conservative imputation test using SBC's original and latest revised rates, Joint CLECs submit that SBC's proposed unbundled loop rates must be rejected and only rates that demonstrably pass an imputation test may be adopted in this case.

E. SBC's Proposed Unbundled Loop Rates Are Higher Than SBC's Residential Retail Rates And Will Squeeze CLECs Out Of The Residential Retail Market

Joint CLECs assert that SBC's proposed loop and associated nonrecurring rate increases are higher than SBC's residential rates and if adopted will squeeze CLECs out of the residential retail market. In support of this position, Joint CLECs point to a December 27, 2002 Staff Report concerning SBC's proposed UNE rates which indicates, among other things, that SBC's proposed wholesale rate increases may have a detrimental impact on the ability of CLECs to compete in the marketplace. (Joint CLEC Ex. 3.1, Attachment 4) The Commission, which relied upon the Staff Report in initiating this investigation, summarized the following concern raised by the Staff:

SBC Illinois proposes significant increases in wholesale rates that could reduce or eliminate the ability of competitive local exchange carriers to compete in the Illinois telecommunications marketplace [and that] SBC Illinois proposes significant increases in wholesale rates that could significantly increase the retail rates charged to Illinois consumers. (Suspension Order, Docket 02-0864, issued December 30, 2002 ("Suspension Order"), pp. 1-2)

Joint CLECs note that the Staff Report analyzed the impact of SBC's tariff filing, comparing the new wholesale network element rates proposed by SBC with retail rates that SBC charged to its own residential customers to determine whether CLECs could still compete with SBC in the residential retail market if SBC's proposed network element rates were approved. Based on that analysis, the Staff Report concludes that "a CLEC taking network elements under the proposed rates could not price its service to retail customers as low as the currently effective rates charged by SBC Illinois." (Joint CLEC Ex. 3.1, Attachment 4, p. 2) Moreover, Joint CLECs observe, the Staff Report includes a table comparing the applicable rates that showed that, for residential consumers, the network element rates SBC proposed to charge were between \$6.04 and \$17.05 higher than the retail rates that SBC charged its own customers. (*Id.*) The Staff Report also described imputation and its relation to SBC's proposed loop rate increases as follows:

An imputation test provides a comparison of the cost a competitor would incur to provide a competitive service versus SBC Illinois' retail price for that service. The test gives an indication of whether a competitor has a reasonable opportunity to compete. There are several imputation tests for competitive services that must be performed as a result of the rate increases for noncompetitive services. Only

the business access line study was submitted with this filing and it indicates that each type of access line included in the study fails the test. (*Id.*, p. 3)

In addition to the Staff Report's assessment of SBC's proposed unbundled loop rate increases on residential retail services, Joint CLECs also provided evidence that SBC's proposals would result in price squeezes that would impair or eliminate the ability of CLECs to provide competitive services to business and residential retail customers. In particular, Joint CLECs presented the testimony of Dr. August Ankum which addressed imputation and price squeeze issues. Dr. Ankum explained that a proper imputation test conducted consistent with the requirements of Section 13-505.1 of the PUA must compare SBC's relevant retail rates against the following cost components:

(i) **Imputed costs of all the UNEs used to provide the service**

This should be calculated by multiplying the quantity of the UNEs used to provide the service *times* the UNE TELRIC prices. Also included should be some recognition of the non-recurring charges to order UNEs.

(ii) **Service specific costs not included in the UNEs**

To the extent that there are costs specific to the service that are not captured in the UNE TELRIC prices, those costs should be added explicitly.

(iii) **A measure of minimum retail related costs**

An appropriate proxy for these retail costs could be established by using the Commission approved percentage for resale discounts. The Commission should recall that the resale discount is calculated based on SBC's retail related expenses. (Joint CLEC Ex. 3.0, p. 8)

Using this construct, Dr. Ankum performed imputation analyses for basic single line business and basic single line residential services. First, in order to identify the revenues that SBC receives for these services, Dr. Ankum identified from SBC's Illinois tariff the rates that SBC charges for a single business including an End User Common Line Charge, and for a residence line including the appropriate End User Common Line Charge and the rates for SBC's Residential Saver Pack – Unlimited Usage. In addition, he identified the nonrecurring charges that apply to those services and amortized them over the two-year period, consistent with the two-year location life assumed in SBC's costs studies, to arrive at nonrecurring charge revenues that should be attributed to SBC. Dr. Ankum then added the appropriate charges together to arrive at total business line and total residential access line revenue per line for customers in access areas A, B and C, respectively. (*Id.*, p. 10-11)

Second, to identify the costs that should be imputed to SBC's basic single line business and residential services, Dr. Ankum identified the UNE-based costs for switching, and loops and two-wire cross connection and nonrecurring charges that SBC has urged the Commission to adopt in this proceeding. Consistent with his analysis of nonrecurring charges on the revenue side, Dr. Ankum identified the nonrecurring charges SBC proposed in this proceeding and amortized them over a two-year period, consistent with the two-year location life assumed in

SBC's costs studies, to arrive at nonrecurring charge costs that should be attributed to SBC. He then added those costs together and applied a factor of 17.8% to the sum of those costs to account for retail related expenses incurred to provide business and residential services, arriving at a total imputed cost for business lines and residential access lines on a per line basis for business and residential customers in access areas A, B and C, respectively. (*Id.*, p. 11-12)

Third, Dr. Ankum compared the total revenue associated with SBC's basic single line business and residential services to the costs that should be imputed to those services. Dr. Ankum's imputation analyses, as revised to account for the correct line connection and service ordering nonrecurring charges and decreases to SBC's residential rates that were implemented between the time that Dr. Ankum's direct and surrebuttal testimony was submitted (May 6, 2003 and February 20, 2004, respectively), demonstrate that SBC's imputed costs are greater than its revenues for basic single line residential retail service, causing it to fail a properly performed imputation test by negative margins of \$4.68, \$15.38 and \$13.17 in access areas A, B and C, respectively. (Joint CLEC Ex. 3.1, p. 4 and Attachment 2) Dr. Ankum's revised analysis also demonstrates that SBC's basic single line business service rate fails a properly performed imputation test by negative margins of \$11.73, \$22.20 and \$22.80 in access areas A, B and C, respectively. (Joint CLEC Ex. 3.1, p. 4 and Attachment 1) Thus, by comparing the cost a competitor would incur to provide a competitive service versus SBC Illinois' retail price for that service, Dr. Ankum's imputation and price squeeze analyses indicate that CLECs would not have a reasonable opportunity to compete with SBC for basic local service and basic residential service customers if SBC's proposed wholesale rate increases are adopted.

Joint CLECs emphasize that the importance of analyzing the impact of increases to wholesale rates on CLECs' ability to compete for residential customers cannot be underestimated and urge the Commission to look to Dr. Ankum's imputation and price squeeze analyses for single-line residential service to evaluate the relationship between SBC's alleged UNE "costs" and the residential retail rates. In particular, Joint CLECs state that there were approximately 779,000 mass market customers, including residential access lines, served via UNE-P in Illinois and 319,000 CLEC customers served via bundled loops as of May 2003, according to the FCC's October 15, 2003 Illinois 271 Order. Given that, Joint CLECs assert that there can be no question that increasing unbundled loop rates and associated nonrecurring charges will have a significant impact on the ability of CLECs to continue to provide service to more than 1,000,000 customers who receiving service via UNE-P and via unbundled loops leased from SBC. The Commission simply cannot ignore the relationship between SBC's alleged UNE "costs" and residential retail rates simply because SBC's residential access lines are not yet classified as competitive.

Indeed, Joint CLECs remind the Commission that in its quest to receive authority to provide in-state, interLATA services, during the Commission's proceeding investigating SBC's compliance with Section 271 of the Telecommunications Act of 1996, SBC loudly proclaimed that all of its services, including its residential services, are highly competitive and that the Commission appears to have agreed with that assessment in its May 13, 2003 Order in Docket 01-0662. Nevertheless, more than four months since the FCC granted SBC's request to provide in-state interLATA services in Illinois on October 15, 2003, SBC has still not declared its residential retail services competitive. Joint CLECs speculate that the reason SBC has not sought to reclassify its residential services as competitive is because SBC plans first to raise its

wholesale rates, then declare residential retail services as competitive, and next claim that the imputation requirements of the law require it to raise its retail rates. Joint CLECs fear that competition would be eliminated through price squeezes, SBC would be forced by law to raise retail rates, and SBC's residential retail services would be deregulated. (Joint CLEC Br., p. 431)

Joint CLECs assert that sooner or later the Commission is going to have to face the implications of the type of imputation test Dr. Ankum performed for residential services. Given that SBC's basic single line residential rates do not pass imputation for SBC's newly proposed rates, either by Dr. Ankum's assessment or the assessment contained in the Staff Report, Joint CLECs hypothesize that those residential rates will very likely have to be increased in the future if the Commission approves SBC's proposed UNE rates in the current proceeding. The Joint CLECs therefore strongly urge the Commission to recognize that its decision here will have a direct impact on the residential consumers of Illinois, as both the Staff Report that formed the basis for the investigation of SBC's proposed increases and Dr. Ankum's testimony make clear. By doing so, the Commission will recognize that if SBC's proposed unbundled loop rates and nonrecurring charges are approved and implemented, CLECs will be squeezed out of the residential retail market. This is so because the CLECs costs of leasing unbundled loops from SBC, which they need to be able to provide local service, would be higher than the rates that SBC charges its residential retail customers, thereby impeding or eliminating the ability of CLECs to provide service to new customers or the more than 1,000,000 existing CLEC customers who receive service via UNE-P and unbundled loops leased from SBC. Hence, Joint CLECs urge the Commission to reject SBC's rate increase proposals because not only do they would cause SBC's business NALs to violate the imputation requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules, but they would also squeeze CLECs out of the residential retail market.

VIII. OTHER LEGAL ISSUES

A. Preemption, Tariffing and Related Issues

Joint CLECs caution that while the Commission will make determinations with respect to the wholesale rates that SBC can charge CLECs, if the statutory or other legal bases upon which the Commission has conducted this proceeding are preempted by federal law, the Commission's determinations may be deemed unlawful and its actions vacated. Joint CLECs contend that SBC's legal position in this case directly calls into question the Commission's authority to set rates through an investigation of tariffs that SBC contends that it was compelled to file.

Joint CLECs recounted the procedural history of this proceeding, noting its novel factual and legal circumstances. Joint CLECs state that originally initiated when SBC filed tariffs on December 24, 2003 containing proposed rate increases for unbundled loops and nonrecurring rates, what appeared to be a routine tariff investigation pursuant to Section 9-201 of the PUA took a radical turn into uncharted waters on May 9, 2003, when this case was abated by operation of law through the enactment of Section 13-408 of the PUA. Subsequently, on May 21, 2003 the Commission took the independent action of canceling SBC's proposed tariffs and dismissing Docket 02-0864.

Meanwhile, CLECs challenged Sections 13-408 and 13-409 of the PUA in federal court, where the SBC automatic wholesale rate increase law was found unlawful and enjoined by the federal district court. (*Voices for Choices v. Illinois Bell Tel. Co.*, 2003 U.S. Dist. LEXIS 9548 (N.D. Ill. June 9, 2003) ("*Voices*")) SBC appealed that decision to the U.S. Court of Appeals for the Seventh Circuit, which upheld the district court's injunction and admonished the Commission to proceed to decision in this case "as expeditiously as possible." (*AT&T Communications of Illinois, Inc. v. Illinois Bell Tel. Co.*, 349 F. 3d 402 (7 Cir. 2003) ("*AT&T*"))

As Joint CLECs note, in response to the *AT&T* decision, the Commission issued its "Order Reopening Proceedings and Resuspending Tariffs" ("Reopening Order") on December 16, 2003. The Reopening Order purported to resuspend the UNE tariffs originally filed by SBC on December 24, 2002, for an additional six months, *i.e.*, until June 16, 2004. (Reopening Order, finding 2) Joint CLECs posit that legally this was, as the Commission recognized, uncertain territory, citing page 5 of the Reopening Order wherein the Commission stated that "the status of the rate schedules canceled by the Commission is far from clear," and that "the Commission determines that *to the extent it is within the Commission's power to resuspend SBC's proposed rates*, it is appropriate to suspend the proposed tariffs in this case for an additional six months starting with the entry of this Order on December 16, 2003." (Reopening Order, p. 5 (emphasis added)) The Reopening Order also noted at page 6 that "the Commission is not under any specific deadline for the entry of a final order in this case, either by statute or under the terms of the injunction."

The Joint CLECs point out that in their Brief and Motion on Reopening, they argued that the May 21, 2003 order, which was not appealed by any party, permanently canceled SBC's proposed tariffs and terminated the Section 9-201 investigation of those tariffs, thereby leaving SBC's existing UNE tariffs in place. Joint CLECs also note that they argued that while the Commission has the statutory authority to reopen the docket (even though the time for rehearing

and appeal has expired), the reopening in no way “revives” the suspension provisions of Section 9-201(b). Therefore, Joint CLEC argue that it was and continues to be their contention that the proceedings on reopening are not subject to any Section 9-201 time constraints, and that the proposed new UNE tariffs that SBC filed on December 24, 2002, will not go into effect on June 17, 2004 if the Commission does not issue a final order in this proceeding by that date.

Based on the arguments advanced in their Brief and Motion on Reopening, Joint CLECs requested the Commission to move forward with this case but to treat it as a generic rate investigation not subject to the tariff suspension provisions of Section 9-201, and urged the Commission to modify its Order on Reopening to reflect that conclusion and to convene a status hearing to set a more reasonable schedule in which to conclude these proceedings. That request was denied by the Commission on February 10, 2004. (Notice of Commission Action, dated February 11, 2004 (stating that the Commission in conference on February 10, 2004, denied the Motion to Revise Reopening Order and Schedule)) Subsequently, on February 11, Joint CLECs filed an Emergency Motion for Reconsideration and Request for Ruling, asking the Commission to reconsider its decision and to issue a ruling stating explicitly the statutory or other legal bases pursuant to which the Commission is conducting this proceeding (a ruling the Commission declined to make on February 10). Joint CLECs assert that such a ruling was necessary so that the bases for the Commission’s decision and whether or not the decision is preempted by federal law will be clear to a reviewing court. The ALJ denied that Emergency Motion and Request for Ruling on February 17, noting among other things that according to the Commission’s Reopening Order “this matter will be treated procedurally as captioned as a Section 9-201 ratemaking and substantively as a Section 252 generic TELRIC proceeding.” (Notice of Administrative Law Judge’s Ruling, Docket 02-0864 Reopened, dated February 17, 2004)

According to Joint CLECs, the legality of proceeding with this matter pursuant to Section 9-201 was not implicated solely by the novel determination that the Commission could “resuspend” tariffs it had already permanently suspended. Joint CLECs aver that a more fundamental question was raised as to whether the Commission could set rates through the investigation of a tariff not voluntarily filed by SBC. The Order on Reopening directed parties to address this issue by briefing the impact of the U.S. Court of Appeals for the Seventh Circuit’s decision in *Wisconsin Bell v. Bie*. (*Wisconsin Bell, Inc. v. Bie*, 340 F. 3d 441 (7 Cir. 2003), *cert. denied*, 2003 WL 22434259, 72 U.S.L.W. 3309 & 2003 WL 22722808, 72 U.S.L.W. 3328 (U.S. Jan. 12, 2004) (Nos. 03-603 & 03-656)) The Reopening Order recognized that the *Bie* case held that under certain circumstances federal law preempted state-imposed tariffing requirements and as a result the Commission was concerned that “some interested party may well challenge any order the Commission may enter in this proceeding, based upon its interpretation of the holding in *Bie*. Accordingly, the proper scope and application of the *Bie* holding appear to us to be vital matters in this proceeding and the Commission will expect detailed argument from the parties on this point to be conducted at the outset of this reopened proceeding.” (Reopening Order, p. 6)

Joint CLECs assert that in briefing the issue of the impact of the *Bie* decision on this proceeding there was consensus among the parties that the Commission could move forward with this proceeding as a generic rate investigation under the Telecommunications Act of 1996. In the initial briefs filed at the outset of this case on reopening, contend Joint CLECs, parties presumed that the *Bie* decision would not be relevant to this proceeding because SBC had voluntarily filed the tariffs that are the subject of the Commission’s investigation. Joint CLECs

submit that if the tariffs were filed voluntarily, they were clearly distinguishable from the tariffs that were at issue in the *Bie* case. However, as Joint CLECs observe, SBC's reply brief made clear that it did not believe that its tariff filing was voluntary:

Staff also makes two additional points that have no bearing on the proper disposition of this proceeding but with which SBC vigorously disagrees. First, to the extent that Staff suggests that the SBC tariff filings at issue in this docket were "voluntarily" submitted (see Staff Br. at 15-18), Staff is mistaken. From the inception of the 1996 Act, SBC has operated in Illinois under a compulsory state regulatory regime in which the Commission has required SBC to implement the terms and conditions of access and interconnection through wholesale tariffs. See, e.g., *Order Illinois Bell Telephone Company Filing to Implement Tariff Provisions Related to Section 13-801 of the Public Utilities Act*, ICC Docket No. 01-0614 ¶¶602, 612 (rel. June 11, 2002) (directing SBC to file revised tariffs in accordance with the ICC's Order implementing the obligations imposed by section 13-801). The Seventh Circuit has declared that regime unlawful and held that the "federally ordained procedure" of negotiation, arbitration, state commission approval, and federal court review set forth in Section 252 of the Act is the exclusive "method by which a competitor can obtain interconnection rights." *Bie*, 340 F.3d at 442-45. The Supreme Court has declined to review that decision, and it stands as binding law. (SBC Illinois' Reply Brief On The Effect Of The AT&T/Voices And Bie Decisions on This Proceeding, Docket 02-0864 Reopen, filed January 23, 2004, pp. 11-12)

Thus, assert Joint CLECs, based on SBC's position on the impact of the *Bie* decision, the Commission is preempted from proceeding with this matter as a tariff investigation pursuant to Section 9-201 of the PUA. As it stands, claim Joint CLECs, the Reopening Order indicates that this is a tariff investigation to which Section 9-201 of the PUA applies. Therefore, Joint CLECs warn that the Commission's final order in this proceeding is subject to being vacated by the federal courts at the behest of whatever parties are dissatisfied with the substantive outcome of the order, – either SBC or the CLECs.

In their reply brief, Joint CLECs agree with Staff that in light of SBC Illinois' position that its original filing of its tariffs in this case was not voluntary and that this case is no longer a tariff proceeding, there are "serious questions about the Commission's authority to proceed in this docket." (Joint CLEC Reply Br., p. 209 (citing Staff Initial Br., p. 233))

B. Procedural and Evidentiary Issues

At its February 10, 2004 open meeting, the Commission adopted the ALJ's recommendation to deny the Joint CLECs' request for additional time to address the new proposals SBC raised in its January 20, 2004 "rebuttal" testimony despite the fact that at the December 19, 2003 status in this matter, SBC, given the choice to stand on its cost studies and testimony as they existed in May 2003 or to update its cost studies, chose the former. While the Commission expressed concern with the number of additions and modifications SBC made in its "rebuttal" case – brought to the Commission's attention in several CLEC briefs filed between January 20, 2004 and February 10, 2004 – the Commission was concerned about the Seventh

Circuit Court of Appeal's statement, in *AT&T*, that the Commission resume this case and complete it "expeditiously." Rather than allow the CLECs more time to address SBC's new and modified proposals, the Commission indicated that the appropriate procedural vehicle for the CLECs to employ was motions to strike.

Pursuant to the Commission's directive, a number of CLECs, including the Joint CLECs, filed a Motion to Strike various portions of the testimony of certain SBC witnesses, Staff witness Dr. Qin Liu and IBEW Local 21 witness Mr. Ronald Kastner. The ALJs granted that portion of the CLECs' Motion to Strike regarding SBC's "updated" labor rates, and that ruling was appropriate. However, the ALJs erroneously denied other portions of the CLECs' Motion to Strike. In their Initial Brief, Joint CLECs stated for the reasons set forth in the Motion to Strike and at the March 15 oral argument, the Commission should strike the additional SBC, Staff and IBEW testimony that was the subject of the Motion to Strike.

The Joint CLECs moved to strike the testimony of SBC witnesses Dr. Currie and Ms. Vivian Gomez-McKeon, which introduced SBC's new proposal that all stand alone POTS loops must be designed loops, a proposal that, if adopted, would significantly increase SBC's nonrecurring charges. SBC admits this proposal is new and that it was aware of its failure to submit this proposal in Illinois as early as the September 2003 Indiana TELRIC hearings, yet it elected not to update its cost studies when presented with the opportunity in December 2003.

In his January 20, 2004 rebuttal testimony, SBC depreciation witness Mr. Vanston provided 360 pages of "updated TFI research", not even bothering to make it appear as proper rebuttal to any of the other parties' direct testimony. Joint CLECs stated that in the four weeks the CLECs had to respond to the thousands of pages of SBC "rebuttal" testimony and schedules, there was no time to analyze these new 360 pages in depth.

In her January 20, 2004 "rebuttal" testimony, Staff witness Dr. Qin Liu revealed for the first time her conceptual "forward looking actual fill" theory on fill factors. As Dr. Qin Liu admitted on cross-examination, even at the time she submitted her "rebuttal testimony", her theory was still in the conceptual stages (even though a proposal like this *should* have been submitted in her *direct* testimony) and she lacked the data to implement it. In her February 20 surrebuttal testimony, Dr. Liu, for the first time, set forth proposed fill factor values to implement her proposal, all the while conceding that she never got the data she needed to implement her theory, and doubted that such data could be accumulated. (See discussion of Dr. Liu's proposal in Section III.B.1.f above.) In anticipation of Dr. Liu's presentation of actual fill factor values in her February 20 testimony, the Joint CLECs served several data requests inquiring into how or whether Dr. Li's proposal complied with the FCC's *Inputs Order* or *Virginia Arbitration Order*. Dr. Qin Liu responded that she lacked sufficient familiarity with those orders to respond. Nevertheless, her March 5, 2004 surrebuttal testimony (the last round of testimony filed in this case) runs on for pages about those Orders. Because Dr. Liu failed to properly respond to these timely discovery requests, the Joint CLECs never had a chance to respond to her discussion of those FCC orders. They therefore contend that this portion of her March 5 surrebuttal testimony should have been stricken.

Finally, SBC witnesses Mr. Smallwood and Mr. White used their rebuttal and surrebuttal rounds of testimony to "beef up" the initial positions they took in SBC's direct case. Joint

CLECs argued that while rebuttal and surrebuttal are designed to narrow the issues based on the information provided in the parties' initial cases, SBC used those rounds to supplement their weak initial positions. Given the limited time to respond and the sheer volume of testimony SBC filed in "rebuttal" on January 20, the discovery process was of little use to the CLECs' efforts to delve into the new information from Messrs. Smallwood and White.

Joint CLECs contended that SBC's argument that the Commission should overrule the ALJs and reinstate the "updated" labor rate information should be rejected. Specifically, in its "rebuttal testimony" filed January 20, 2004, SBC "updated" the labor rates it used in all fifteen of its nonrecurring cost studies sponsored by SBC witnesses Dr. Currie and Mr. Barch. The explanation given by Dr. Currie was that all of the nonrecurring cost studies had been "updated" to incorporate "the development of labor rates that rely on more current information." (SBC Ex. 5.1, p. 8) The updated labor rates, sponsored by SBC witness Mr. Barch in his January 20, 2004, "rebuttal" testimony, permeated many of the cost studies in this docket.

Joint CLECs had, and continue to have, several objections to the incorporation of these "updated" labor rates in SBC's cost studies. First, when this case resumed after the "abatement" that resulted from SBC's unlawful UNE loop automatic rate increase law, the Commission directed that the case should be completed within 6 months, and Joint CLECs were given only one month to file rebuttal testimony in response to SBC's massive January 20 "rebuttal" case. Despite SBC's arguments to the contrary (SBC Initial Br., p. 270), in the context of this case Joint CLECs were in fact prejudiced by this update. While it might have been a manageable task for the Joint CLECs to review and respond to the revised labor rates and the approximately 15 updated nonrecurring cost studies within 30 days *had these been the only changes*, it was an impossible task given the massive scope of SBC's overall rebuttal case, which SBC had eight months to prepare.

Second, and more substantively, SBC's revision of its nonrecurring cost studies to incorporate updated labor rates constituted selective updating. As discussed above, SBC had the opportunity to withdraw its cost studies and submit new ones based on more current cost information, but elected not to take advantage of this opportunity. Instead, SBC selectively updated its cost studies in "rebuttal." While SBC might argue that some of its revisions reduced loop costs and related nonrecurring charges, all of SBC's cost-reducing revisions were to correct obvious errors that had been pointed out by Staff or intervenor witnesses in their May 2003 direct testimony – such as removing costs the many costs SBC had double-counted in its originally-filed studies. Other updates to incorporate more current data and information that would have reduced SBC's costs and proposed UNE rates were not made. For example, as discussed at length elsewhere in the Joint CLECs' briefs, interest rates and other cost of capital indicators had declined markedly, yet SBC selectively chose not to submit revised cost of capital studies to incorporate the lower costs of capital.

Thus, Joint CLECs contend, the issue is not really what SBC counsel said or meant in stating at the December 18, 2003, status hearing that SBC would stand on and proceed with its proposed tariffs and cost studies as originally filed. (SBC Initial Br., p. 270) Rather, the issue is whether SBC should be allowed to selectively update and revise its cost studies to its benefit. It should not, and the ALJs' ruling striking the updated labor rates and updated nonrecurring cost studies was correct.

Joint CLECs stated that SBC finds itself in a self-created Catch-22 by arguing that its “updated” labor rates are “based on 2001 data, which makes it consistent with the vintage of the rest of the data used in its cost studies.” (SBC Initial Br., p. 269) They note that if the updated labor rate information is in fact 2001 data, and if it is consistent with the vintage of the rest of the data used in SBC’s cost studies, then SBC should have (and should have been able to) include this information in its direct case filing in December 2002, in which case Staff and intervenors would have had some four months to review, conduct discovery on and prepare rebuttal testimony concerning the revised labor rates. SBC failed to explain why it did not include the 2001 labor rate data in its direct case, and SBC should not be allowed to introduce its updated labor rate information in its rebuttal filing. Joint CLECs stated that the fact that the “updated” labor rate information was based on 2001 data belies SBC’s assertion that the labor rate information and the revised costs studies were “legitimate rebuttal testimony.” (SBC Initial Br., p. 269)

Joint CLECs summarized that for all the above reasons and for the reasons presented in the Motion to Strike and at the March 15 oral argument on the Motion, the Commission should affirm the ALJs’ ruling granting the portion of the Joint CLECs’ Motion to Strike SBC’s “updated” labor rates, and should grant the remainder of the Joint CLECs’ Motion to Strike in full. They stated most importantly, denial of the Motion to Strike is not a precedent the Commission should set. In fact, such a precedent is dangerous. First, it undermines the integrity of the entire regulatory process. If the Commission states that a remedy is available to an aggrieved party, that remedy must be meaningful and stringently and consistently applied. Moreover, if the Commission wants a full and complete evidentiary record upon which to make decisions as vital to competition as SBC’s loop rates, shared and common cost markup and nonrecurring charges to CLECs, all parties must have an equal opportunity to participate and prepare their cases, and all parties must be required to play by the same rules. Joint CLECs stated that to compromise these rules only jeopardizes the integrity and the substance of the proceeding.

Respectfully submitted,

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