HATFIELD MODEL SENSITIVITY ANALYSIS
LOOP COST - SWBT TEXAS

Purpose of the Sensitivity Analysis

The costs for loops calculated by the Hatfield model and Southwestern Bell Telephone (SWBT) cost studies are significantly different - $11.62 versus $18.06 (SWBT - forward looking economic cost studies; SWBT actual loop costs are $27.81).[1] Differences in cost estimates are caused by two factors:

Differences in the structure of cost models. These may include,

Differences in costing methods (e.g., computing plant costs per unit of maximum useable capacity versus per unit of expected, average utilization).

Differences in cost elements (e.g., including main distributing frame costs with end office switching costs versus loop costs).

Differences in the type of source data used for costing (e.g., pole and conduit resource costs versus factors which express pole and conduit investment relative to cable investment).

Differences in input (source data) to the cost models (e.g., construction cost data, mix of plant types, plant fill factors and others.)

Sensitivity analyses typically are used to evaluate the effect of changes in input to a cost model on the model result. For example, the most important input values to a cost model can be identified by varying input values to the model, one at a time, and determining which input values cause the greatest change in the result.

Sensitivity analyses also can be used to isolate the effect of differences in input between two cost models. In this case, the input from one model is used in the other, preferably one at a time, to determine the effect of input value differences on model results.

If the two models produce the same or similar results, having modified all input to be the same, then it is reasonable to conclude any differences in the structure of the models are immaterial. If the models continue to produce significantly different results, differences in

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[1] The loop monthly costs include loadings for "common costs." The Hatfield model cost includes a loading of 10% of direct costs for "variable overheads." The SWBT cost includes a loading of 15.47% of direct costs for prospective joint and common costs. One of the sensitivity analyses determines the change in the Hatfield model cost from substituting SWBT's 15.47% loading for Hatfield's 10% loading.

model structure are significant. Changes in the structure of one model would have to be made to identify the effect of structural differences on model results. Structural changes, though, may not be practical depending on the size and complexity of the cost models.

The sensitivity analyses of the Hatfield model have three purposes: First, to determine (to the extent possible) the effect on loop costs of using SWBT input data in the Hatfield model. Secondly, to identify the most important differences in input values. Third, to conclude whether significant structural differences in the Hatfield and SWBT models remain which cause differences in cost estimates.

Results of Unbundled Sensitivity Analyses

The results of fifteen sensitivity analyses run on the Hatfield model are illustrated below in Figure 1.

Figure 1

HATFIELD MODEL SENSITIVITY ANALYSIS
LOOP COST - SWBT TEXAS

CHANGE	Cumulative Change *	
	Loop Cost	Cumulative Difference
Base Hatfield Run	$11.62	$0.00
1. Staff Changes	$17.41	$5.79
2. SWBT Depreciation/Capital Costs	$20.89	$9.27
3. SWBT Overhead Factor	$21.62	$10.00
4. SWBT Fill Factors	$22.07	$10.45
5. SWBT Structure Assign to Telephone	$23.82	$12.20
6. SWBT Cable Premise Term./SAI Costs	$24.68	$13.06
7. SWBT Switching Costs	$24.50	$12.88
8. SWBT Network Operations & CO Expense Factors	$25.12	$13.50
9. ARMIS Adjustments	$24.36	$12.74
10. SWBT Signalling Parameters	$24.34	$12.72
11. SWBT Miscellaneous Expense Factors	$23.95	$12.33
12. SWBT Wirecenter parameters	$23.97	$12.35
13. SWBT IO and Tandem parameters	$23.64	$12.02
14. Miscellaneous Items	$23.28	$11.66
15. SWBT Cable Mix	$26.53	$14.92

NOTES: * THE CUMULATIVE CHANGE CAN NOT BE DETERMINED BY SUMMING THE AMOUNT OF CHANGE ASSOCIATED WITH INDIVIDUAL CHANGES DUE TO THE INTERACTIONS OF THE CHANGED VARIABLES.

Differences in Input

The changes made to the Hatfield Model are indicated on the table below by reference to the line number. The actual values for all of the changes for the cumulative run # 15 are shown on Exhibit 1. The changes are divided into two basic categories, one for those change recommended by the Texas PSC Staff and additional changes recommended by SWBT. The changes recommended by the Texas Staff are shown on Exhibit 2.

CHANGE	Lines Changed
Base Hatfield Run	
1. Staff Changes	17-29,32-36,41,68-73, 80,376,385,401,374, 377, 378,383,384,386,387, 335-337,340-342, 438, 55,391
2. SWBT Depreciation/Capital Costs	17-29, 32-36
3. SWBT Overhead Factor	41
4. SWBT Fill Factors	68-73, 80, 376,385,401
5. SWBT Structure Assign to Telephone	335-337,340-342,438
6. SWBT Cable Premise Term./SAI Costs	488-498, 501-511, 516-527, 530-541, 546-554, 558-567, 328-330, 346-356, 359-369
7. SWBT Switching Costs	81, 83, 99-101, 103-105, 11
8. SWBT Network Operations & CO Expense Factors	47, 48
9. ARMIS Adjustments	ARMIS Data
10. SWBT Signalling Parameters	395, 397-399, 402, 403, 407
11. SWBT Miscellaneous Expense Factors	42-46, 51, 52
12. SWBT Wirecenter parameters	143-147, 157-161, 164- 168
13. SWBT IO and Tandem parameters	114-116, 117-119, 123-126, 131, 132
14. Miscellaneous Items	414, 415, 417, 420, 421, 431, 456-458,467, 470-472
15. SWBT Cable Mix	173-178, 181-186, 189-194, 221-226, 229-234, 237-242, 277-282, 285-290, 293-298

The various inputs changes can be categorized into the groups shown below:

Depreciation Lives/Capital Cost

The Hatfield model uses plant service lives for cable and wire facilities and circuit equipment which are longer than those expected by SWBT. In addition, the Hatfield model does not recognize net salvage values for cable and wire facilities. To adjust the Hatfield model input, the depreciation lives were all recomputed to produce the same depreciation rate as the economic lives with net salvages

expected by SWBT. These lives then were substituted for those in the Hatfield model.

Hatfield model values for debt ratio, cost of debt and the cost of money were changed to those used by SWBT. Since SWBT's cost of money figure for Texas regulatory purposes is slightly higher than the Hatfield model (10.93% versus 10.01%), the effect was to raise monthly loop costs. For the model to be used in the interstate jurisdiction, further adjustments would be necessary to reflect the FCC authorized cost of money as identified below:

	HATFIELD	FCC
Debt Percent	42%	44.2%
Cost of Debt	7.7%	8.8%
Cost of Equity	11.9%	13.2%

The combination of corrected economic depreciation lives and realistic capital cost information is a major contributor to the difference between the incorrect Hatfield Model and SWBT cost study information or actual costs.

Overhead Factor

One of the most important changes was to increase the "variable overhead" factor from 10% to 15.47%. This increases the level of common costs allocated to the monthly loop cost.

Fill Factors

Hatfield fill factors for distribution cable and digital loop carrier systems were modified to yield the same effective utilization levels as used in the SWBT study. Although feeder cable fill factors can be modified in the Hatfield model, it was not possible to compute the effective utilization for feeder cable in the Hatfield model. Consequently, it was not possible to adjust feeder cable fill to match the SWBT value. Lowering fill factors for distribution cable and digital loop carrier systems to SWBT levels raises the Hatfield monthly loop cost.

Structures Assigned to Telephone

Input to the Hatfield model was changed to reflect that no conduit or buried cable placement costs are attributed to other utilities. The portion of aerial cable attributed to other utilities was reduced from 67% to 50% to reflect the amount of poles used in SWBT's study. The net effect of these changes increased the overall loop cost. While the Staff adjustment increased the buried cable telephone assignment to 100% and SWBT's adjustment increased the underground cable to 100% the aerial percentage was decreased to 50% The estimated combined effect produces an estimated 30% increase in the cost of the

loop. This is a major difference between the Hatfield Model and SWBT cost studies or actual data.

Construction Costs

A key input to the calculation of monthly loop costs is the cost of material, equipment, labor, etc. used to construct loop facilities. The four most important categories of construction cost input for loops are cable costs per foot, buried cable placement labor costs, pole and conduit cost data, and digital loop carrier cost data. SWBT cost data for these categories were substituted for Hatfield model data. Other construction cost data, such as serving area interface (SAI) also were changed. Other non-loop related costs were also changed in this analysis. Although these non-loop cost changes do not directly change the calculated loop investment values, it does impact the allocation of the network and overhead related expenses in the Hatfield Model.

ARMIS Input[2]

Two adjustments were made to the ARMIS investment and expense input to the Hatfield model. First, embedded investments were restated on a higher, current cost basis. Since network expenses are computed based on the ratio of expenses to investment, this had the effect of lowering network expense factors and the resulting network expenses. The second adjustment was to eliminate the effect of the compensable property adjustment, which in many cases is reflected in Texas ARMIS reported expenses. This is necessary because that while the expense, return and tax amounts are charged to the benefiting state, the investment remains on the host state's reports. Thus, any ratio (i.e. network expense factors) developed with investment in the denominator must eliminate the compensable property adjustment from the numerator.[3]

Mix of Cable Types

In this sensitivity analysis, the proportions of prospective aerial, buried and underground cable plant were changed in the Hatfield model to those used by SWBT. For distribution feeder and fiber cable, there was a reduction in the use of aerial cable and increases in buried and underground cable.

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[2] ARMIS Inputs (and other loading factors) were adjusted to reflect the differences in the development of Annual Cost Factors.

[3] Expense amounts on the ARMIS reports are net of transfers to other states for expenses and capital costs on plant in Missouri used to provide services to other states. Since capital cost transfers are charged to expense accounts, the effect is to lower the expense amounts below the level of actual expenses to repair and maintain associated plant. In some cases, expense account balances actually are negative. The Hatfield study does not recognize this.

Differences in the Structure of the Cost Models

Since the cumulative result of the sensitivity analyses ($26.53) is substantially different from SWBT's monthly cost estimate $18.06 (including joint and common costs), this indicates there are significant structural differences in the models. Some of these include the way in which distribution cable distances are calculated, the method for computing poles and conduit investment, the exclusion of the main distributing frame from loop costs in the Hatfield model, and the way in which premises termination investment is calculated.

Conclusions

Based on the sensitivity analyses, the most significant input value differences between the SWBT and Hatfield models for loop costs appear to be in the areas of construction costs, especially digital loop carrier costs, depreciation lives/capital costs, and the assignment of structures investment to other utilities. Beyond these differences in input, there are significant differences in model structure which contribute to differences in loop costs.

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
15	**Cost of Capital Factors**			
16	***Depreciation Lives***			
17	Loop Distribution	20	12.4	DistLife
18	Loop Feeder	20	12.2	FeedLife
19	Loop Concentrator	10	5	ConcLife
20	Wire Center	37	37.6	WireLife
21	End Office Switching	14.3	9.2	EOLife
22	Tandem Switching	14.3	9.2	TandLife
23	Transport Facilities	19	24.8	TransLife
24	Operator Systems	8	13	OpLife
25	STP	14	9.2	STPLife
26	SCP	14	9.2	SCPLife
27	Links	19	13	LinkLife
28	Public Telephones	9	7.6	PubLife
29	General Support	7	8.7	GenLife
30				
31	***Cost of Capital***			
32	Debt Percent	45.00%	42.00%	DebtP
33	Cost of Debt	7.70%	8.07%	DebtCost
34	Cost of Equity	11.90%	13.00%	EquityCost
35	*Equity Percent*	*55.00%*	*58.00%*	
36	*Overall Cost of Capital*	*10.01%*	*10.93%*	
37				
38				
39	**Misc Expense Factors**			
40				
41	Variable Overhead Factor	10.00%	15.47%	VarOvhd
42	Federal Income Tax Rate	40.00%	35.00%	FITRate
43	Other Taxes Factor	5.00%	5.88%	OtherTax
44	Operating State and Local Income Tax Fa	1.00%	0.95%	StateIT
45	Billing/Bill Inquiry per line per month	$1.22	$2.37	Billing
46	Directory Listing per line per month	$0.15	$0.24	Directory
47	Forward-Looking Network Operations Fac	70.00%	100.00%	NetOps
48	Central Office Switching Expense Factor	2.69%	9.86%	COSwitch
49	End Office Traffic-Sensitive Fraction	70.00%	70.00%	EOTraffic
50	per-line Monthly LNP Cost	$0.25	$0.25	LNP
51	alternative CO switching factor	0.0269	0.0986	ACOSF
52	alternative circuit equipment factor	0.0153	0.0294	ACEF
53	Carrier-carrier customer service per line p	$1.56	$1.56	CarCar
54	NID expense per line per year	$3.00	$3.00	NIDExp
55	Swithc line circuit offset per DLC line	$35.00	$8.75	CircOffs
56				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
57	**Fill Factors**			
58	Cable			
59	*Feeder*			
60	0-5	0.65	0.65	Feeder0
61	5-200	0.75	0.75	Feeder5
62	200-650	0.80	0.80	Feeder200
63	650-850	0.80	0.80	Feeder650
64	850-2550	0.80	0.80	Feeder850
65	2550+	0.80	0.80	Feeder2550
66				
67	*Distribution*			
68	0-5	0.50	0.53	Dist0
69	5-200	0.55	0.53	Dist5
70	200-650	0.60	0.53	Dist200
71	650-850	0.65	0.53	Dist650
72	850-2550	0.70	0.53	Dist850
73	2550+	0.75	0.53	Dist2550
74				
75	**EO Switching Parameters**			
76				
77	Busy hour call attempts, residential	1.3	1.3	BHCAR
78	Busy hour call attempts, business	3.5	3.5	BHCAB
79	Switch Maximum Line Size	100,000	100,000	MaxLines
80	Switch Maximum Line Fill	0.8	0.8	MaxLineFill
81	Switch Maximum Processor Occupancy	0.9	0.85	MaxProc
82	Processor Feature Loading Multiplier	1	1	FeatureMult
83	Switch Installation Multiplier	1.1	1	InstallMult
84				
85	*Switch Parameters*			
86	Switch real-time limit, BHCA			
87	1 - 1,000	10,000	10,000	BHCA1
88	1,000 - 10,000	50,000	50,000	BHCA2
89	10,000 - 40,000	200,000	200,000	BHCA3
90	40,000+	600,000	600,000	BHCA4
91				
92	Switch traffic limit, BHCCS			
93	1 - 1,000	10,000	10,000	BHCCS1
94	1,000 - 10,000	50,000	50,000	BHCCS2
95	10,000 - 40,000	500,000	500,000	BHCCS3
96	40,000+	1,000,000	1,000,000	BHCCS4
97				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
98	*Switch cost points*	lines		
99	Low line size	2,782	7,703	LowSize
100	Mid line size	11,200	21,062	MidSize
101	High line size	80,000	53,653	HighSize
102		cost/line		
103	Low line size	$220.00	$236.00	LowCost
104	Mid line size	$86.00	$248.00	MidCost
105	High line size	$59.00	$232.00	HighCost
106				
107	Residential Holding Time Multiplier	1.00	1.00	resHT
108	Business Holding Time Multiplier	1.00	1.00	busHT
109	Busy Hour fraction of daily usage	0.10	0.10	BHF
110	Annual to daily usage reduction factor	270.00	319.00	UsRed
111				
112	**Interoffice and Tandem Parameters**			
113				
114	Operator Traffic Fraction	0.02	0.0245	OpFrac
115	Total Interoffice Traffic Fraction	0.65	0.64	InterFrac
116	Direct-Routed Fraction of Local Interoffice	0.98	0.34	DirectFrac
117	Maximum Trunk Occupancy, CCS	27.5	22	TrunkCCS
118	Trunk Termination Investment, per end	$100	$470	TermInv
119	Average Direct Route Distance, miles	10	9	Miles
120	Average Trunk Usage Fraction	0.3	0.3	TrunkFrac
121				
122	*Toll traffic inputs*			
123	Tandem-routed % of total intraLATA traffic	0.2	0.68	tandLATA
124	Average direct intraLATA route distance, m	25	32	LATAdist
125	Tandem-routed % of total interLATA traffic	0.2	0.37	tandAccess
126	Average direct access route distance, mi.	15	17	Accessdist
127				
128				
129	*Tandem Switching parameters*			
130	real time limit, BHCA	1,500,000	1,500,000	tandBHCA
131	port limit, trunks	120,000	80,000	portlimit
132	common equipment investment	$1,000,000	$925,000	tandcominv
133	maximum trunk fill	0.8	0.8	maxtrunkfill
134	maximum real time occupancy	0.9	0.85	tandmaxocc
135	common equipment intercept factor	0.25	0.25	tandintercept
136				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
137	**Wire Center Parameters**			
138				
139	Lot size, multiplier of switch room size	2	2	LotSize
140	Tandem/EO wire center common factor	0.4	0.4	WCcomm
141				
142	*Power and frame investment*	sum of power & frame		
143	0	$10,000	$0	PF1
144	1,000	$20,000	$0	PF2
145	5,000	$40,000	$0	PF3
146	25,000	$100,000	$0	PF4
147	50,000	$500,000	$0	PF5
148				
149	*Switch Room size table*	floor area required		
150	0	500	500	Room1
151	1,000	1,000	1,000	Room2
152	5,000	2,000	2,000	Room3
153	25,000	5,000	5,000	Room4
154	50,000	10,000	10,000	Room5
155				
156	*Construction costs, per sq ft*	construction/$/sq ft		
157	0	$75	$200	Const1
158	1,000	$85	$200	Const2
159	5,000	$100	$200	Const3
160	25,000	$125	$200	Const4
161	50,000	$150	$200	Const5
162				
163	*Land price, per sq ft*	price/sq ft		
164	0	$5.00	$0.00	Land1
165	1,000	$7.50	$0.00	Land2
166	5,000	$10.00	$0.00	Land3
167	25,000	$15.00	$0.00	Land4
168	50,000	$20.00	$0.00	Land5
169				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
170	**Distribution Structure Inputs**			
171				
172	*Aerial Fraction*			
173	0-5	0.5	0.1604	distaerial1
174	5-200	0.5	0.1604	distaerial2
175	200-650	0.5	0.1604	distaerial3
176	650-850	0.5	0.2227	distaerial4
177	850-2550	0.4	0.2227	distaerial5
178	2550+	0.65	0.2657	distaerial6
179				
180	*Buried Fraction*			
181	0-5	0.5	0.7909	distbur1
182	5-200	0.5	0.7909	distbur2
183	200-650	0.5	0.7909	distbur3
184	650-850	0.5	0.6807	distbur4
185	850-2550	0.5	0.6807	distbur5
186	2550+	0.05	0.411	distbur6
187				
188	*Underground Fraction*			
189	*0-5*	*0*	*0.0487*	*distug1*
190	*5-200*	*0*	*0.0487*	*distug2*
191	*200-650*	*0*	*0.0487*	*distug3*
192	*650-850*	*0*	*0.0966*	*distug4*
193	*850-2550*	*0.1*	*0.0966*	*distug5*
194	*2550+*	*0.3*	*0.3233*	*distug6*
195				
196	*Buried Installation/foot*			
197	0-5	$2.00	$2.00	distburinv1
198	5-200	$2.00	$2.00	distburinv2
199	200-650	$2.00	$2.00	distburinv3
200	650-850	$3.00	$3.00	distburinv4
201	850-2550	$3.00	$3.00	distburinv5
202	2550+	$20.00	$20.00	distburinv6
203				
204	*Conduit Installation/foot*			
205	0-5	$25.00	$25.00	distcondinv1
206	5-200	$25.00	$25.00	distcondinv2
207	200-650	$25.00	$25.00	distcondinv3
208	650-850	$25.00	$25.00	distcondinv4
209	850-2550	$45.00	$45.00	distcondinv5
210	2550+	$70.00	$70.00	distcondinv6
211				
212	Pole spacing, feet	150	150	distpolespace
213	Pole investment	$450	$450	distpoleinv
214	Conduit investment per foot	$1.00	$1.00	distcondinv
215	Manhole investment, per manhole	$3,000	$7,500	distmanhinv
216	Buried cable armoring multiplier	1.1	1.1	distarmormult
217				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
218	**Copper Feeder Structure Inputs**			
219				
220	*Aerial Fraction*			
221	0-5	0.5	0.0323	cufeedaerial1
222	5-200	0.5	0.0323	cufeedaerial2
223	200-650	0.5	0.0323	cufeedaerial3
224	650-850	0.4	0.0314	cufeedaerial4
225	850-2550	0.1	0.0314	cufeedaerial5
226	2550+	0.05	0.0297	cufeedaerial6
227				
228	*Buried Fraction*			
229	0-5	0.45	0.699	cufeedbur1
230	5-200	0.45	0.699	cufeedbur2
231	200-650	0.45	0.699	cufeedbur3
232	650-850	0.4	0.3521	cufeedbur4
233	850-2550	0.1	0.3521	cufeedbur5
234	2550+	0.05	0.1248	cufeedbur6
235				
236	*Underground Fraction*			
237	*0-5*	*0.05*	*0.2687*	*cufeedug1*
238	*5-200*	*0.05*	*0.2687*	*cufeedug2*
239	*200-650*	*0.05*	*0.2687*	*cufeedug3*
240	*650-850*	*0.2*	*0.6166*	*cufeedug4*
241	*850-2550*	*0.8*	*0.6166*	*cufeedug5*
242	*2550+*	*0.9*	*0.8455*	*cufeedug6*
243				
244	*Buried Installation/foot*			
245	0-5	$2.00	$2.00	cufeedburinv1
246	5-200	$2.00	$2.00	cufeedburinv2
247	200-650	$2.00	$2.00	cufeedburinv3
248	650-850	$3.00	$3.00	cufeedburinv4
249	850-2550	$3.00	$3.00	cufeedburinv5
250	2550+	$25.00	$25.00	cufeedburinv6
251				
252	*Conduit Installation/foot*			
253	0-5	$25.00	$25.00	cufeedcondinv1
254	5-200	$25.00	$25.00	cufeedcondinv2
255	200-650	$25.00	$25.00	cufeedcondinv3
256	650-850	$25.00	$25.00	cufeedcondinv4
257	850-2550	$45.00	$45.00	cufeedcondinv5
258	2550+	$75.00	$75.00	cufeedcondinv6
259				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
260	*Manhole Spacing, ft.*			
261	0-5	800	500	cufeedman1
262	5-200	800	500	cufeedman2
263	200-650	800	500	cufeedman3
264	650-850	800	500	cufeedman4
265	850-2550	600	400	cufeedman5
266	2550+	400	400	cufeedman6
267				
268	Pole spacing, feet	150	150	ufeedpolespace
269	Pole investment	$450	$450	cufeedpoleinv
270	Conduit investment per foot	$1.00	$1.00	cufeedcondinv
271	Manhole investment, per manhole	$3,000	$7,500	cufeedmanhinv
272	Buried cable armoring multiplier	1.1	1.1	ufeedarmormult
273				
274	**Fiber Feeder Structure Inputs**			
275				
276	*Aerial Fraction*			
277	0-5	0.35	0	fibfeedaerial1
278	5-200	0.35	0	fibfeedaerial2
279	200-650	0.35	0	fibfeedaerial3
280	650-850	0.2	0	fibfeedaerial4
281	850-2550	0.1	0	fibfeedaerial5
282	2550+	0.05	0	fibfeedaerial6
283				
284	*Buried Fraction*			
285	0-5	0.6	0.16	fibfeedbur1
286	5-200	0.6	0.16	fibfeedbur2
287	200-650	0.6	0.16	fibfeedbur3
288	650-850	0.6	0.16	fibfeedbur4
289	850-2550	0.1	0.16	fibfeedbur5
290	2550+	0.05	0.16	fibfeedbur6
291				
292	*Underground Fraction*			
293	*0-5*	*0.05*	*0.84*	*fibfeedug1*
294	*5-200*	*0.05*	*0.84*	*fibfeedug2*
295	*200-650*	*0.05*	*0.84*	*fibfeedug3*
296	*650-850*	*0.2*	*0.84*	*fibfeedug4*
297	*850-2550*	*0.8*	*0.84*	*fibfeedug5*
298	*2550+*	*0.9*	*0.84*	*fibfeedug6*
299				
300	*Buried Installation/foot*			
301	0-5	$2.00	$2.00	fibfeedburinv1
302	5-200	$2.00	$2.00	fibfeedburinv2
303	200-650	$2.00	$2.00	fibfeedburinv3
304	650-850	$3.00	$3.00	fibfeedburinv4
305	850-2550	$3.00	$3.00	fibfeedburinv5
306	2550+	$20.00	$20.00	fibfeedburinv6
307				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
308	*Conduit Installation/foot*			
309	0-5	$25.00	$25.00	fibfeedcondinv1
310	5-200	$25.00	$25.00	fibfeedcondinv2
311	200-650	$25.00	$25.00	fibfeedcondinv3
312	650-850	$25.00	$25.00	fibfeedcondinv4
313	850-2550	$45.00	$45.00	fibfeedcondinv5
314	2550+	$70.00	$70.00	fibfeedcondinv6
315				
316	*Manhole Spacing, ft.*			
317	0-5	2,000	500	fibfeedman1
318	5-200	2,000	500	fibfeedman2
319	200-650	2,000	500	fibfeedman3
320	650-850	2,000	500	fibfeedman4
321	850-2550	2,000	400	fibfeedman5
322	2550+	2,000	400	fibfeedman6
323				
324	Buried cable armoring per foot, fiber	$0.20	$0.20	ibfeedarmormult
325				
326	**Misc Loop Investment Inputs**			
327				
328	Drop investment per line	$40.00	$71.38	dropinv
329	NID investment per line	$30.00	$0.00	NIDInv
330	Terminal and splice per line	$35.00	$47.92	SpliceInv
331	Average lines per business location	4	4	BusLinesLoc
332	Feeder structure fraction shared w/ interof	0.25	0.25	FeedShare
333				
334	*Distribution structure % assigned to telephone*			
335	aerial	0.33	0.5	AirDistTel
336	buried	0.33	1	BurDistTel
337	underground	0.33	1	UgDistTel
338				
339	*Feeder structure % assigned to telephone*			
340	aerial	0.33	0.5	AirFeedTel
341	buried	0.33	1	BurFeedTel
342	underground	0.33	1	UgFeedTel
343				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
344	*SAI Investment, installed*			
345	*Distribution cable size*	copper feeder		
346	0	$500.00	$1,469.00	cuSAI1
347	100	$700.00	$1,469.00	cuSAI2
348	200	$900.00	$1,469.00	cuSAI3
349	400	$1,100.00	$2,302.00	cuSAI4
350	600	$1,300.00	$2,971.00	cuSAI5
351	900	$1,500.00	$3,956.00	cuSAI6
352	1200	$1,700.00	$5,038.00	cuSAI7
353	1800	$1,900.00	$6,810.00	cuSAI8
354	2400	$2,100.00	$9,131.00	cuSAI9
355	3000	$2,300.00	$13,976.00	cuSAI10
356	3600	$2,500.00	$16,567.00	cuSAI11
357				
358	*Distribution cable size*	fiber feeder		
359	0	$2,500.00	$1,469.00	fibSAI1
360	100	$2,700.00	$1,469.00	fibSAI2
361	200	$2,900.00	$1,469.00	fibSAI3
362	400	$3,100.00	$2,302.00	fibSAI4
363	600	$3,300.00	$2,971.00	fibSAI5
364	900	$3,500.00	$3,956.00	fibSAI6
365	1200	$3,700.00	$5,038.00	fibSAI7
366	1800	$3,900.00	$6,810.00	fibSAI8
367	2400	$4,100.00	$9,131.00	fibSAI9
368	3000	$4,300.00	$13,976.00	fibSAI10
369	3600	$4,500.00	$16,567.00	fibSAI11
370				
371	**Digital Loop Carrier Inputs**			
372				
373	*SLC (TR-303)*			
374	site, housing, and power per remote termi	$3,000.00	$14,874.32	SLChouse
375	maximum lines	672	672	SLCmaxlines
376	remote terminal fill factor	0.9	0.6955	SLCfill
377	common equipment investment	$42,000.00	$109,370.00	SLCcomm
378	channel unit investment per line	$75.00	$85.72	SLCchan
379	DS-0s per fiber	$2,016.00	$2,016.00	
380	Fibers per remote terminal	4	4	
381				
382	AFC			
383	site, housing, and power per remote termi	$2,500.00	$9,885.57	AFChouse
384	maximum lines	100	192	AFCmaxlines
385	remote terminal fill factor	0.9	0.6476	AFCfill
386	common equipment investment	$10,000.00	$72,688.00	AFCcomm
387	channel unit investment per line	$150.00	$85.72	AFCchan
388	DS-0s per fiber	2,016	672	
389	Fibers per remote terminal	4	4	
390				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
391	Fiber feeder distance threshold, ft. (feeder	9,000	15,000	
392				
393	**Signaling Parameters**			
394				
395	STP Link Capacity	720	68	STPcap
396	STP Maximum Fill	0.8	0.8	STPfill
397	STP Investment, per pair, fully equipped	$5,000,000.00	$3,145,243.00	STPInv
398	STP common equipment investment, per	$1,000,000.00	$3,145,243.00	STPcomm
399	Link Termination, both ends	$900.00	$50,040.00	LinkTerm
400	Signaling Link Bit Rate	56000	56000	LinkRate
401	Link Occupancy	0.4	0.07	LinkOcc
402	C Link Cross-Section	24	3	LinkCross
403	ISUP messages per interoffice BHCA	6	5.4	ISUPmsgs
404	ISUP message length, bytes	25	25	ISUPlen
405	TCAP messages per transaction	2	2	TCAPmsgs
406	TCAP message length, bytes	100	100	TCAPlen
407	Fraction of BHCA requiring TCAP	0.1	0.07	TCAPFrac
408	SCP investment per transaction per secon	$20,000.00	$7,654.00	SCPInv
409				
410				
411	**Misc Inputs**			
412				
413	*Operator position parameters*			
414	Investment per position	$3,500.00	$100,000.00	opinv
415	Maximum utilization per position, CCS	27	25	opccs
416	Operator intervention factor	10	10	opint
417	Operator position remote distance, mi.	0	125	opdist
418				
419	*Other*			
420	DS0/DS1 crossover	24	20	DS0cross
421	DS1/DS3 crossover	28	14	DS1cross
422				
423	Public Telephone investment per station	$1,200.00	$1,278.32	PubInv
424				
425	**Transport Investment**			
426				
427	*Terminal Investment*			
428	Number of Fibers	24	24	termfib
429	FOT capacity, DS-3s	12	12	FOTcap
430	FOT fill	0.8	0.8	FOTfill
431	FOT, installed	$43,000.00	$43,826.85	FOTinst
432	Pigtails	$60.00	$60.00	pigs
433	Panel	$1,000.00	$1,000.00	panel
434	EF&I, per hour	$55.00	$55.00	efi
435	EF&I units	32	32	EFIU
436				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
437	*Medium Investment*			
438	Fraction of structure assigned to telephone	0.33	1	telfrac
439	Fraction of structure shared with feeder	0.25	0.25	feedfrac
440	Distance, mi.	41	41	dist
441	Regenerator spacing, mi.	40	40	regensp
442	Regenerator investment, installed	$15,000.00	$15,000.00	regeninv
443	Fiber Cable investment per foot	$2.00	$2.00	fibinv
444	Placement	$2.00	$2.00	fibplace
445	Splice Spacing, ft.	20000	20000	splicesp
446	Splice Cost	$15.00	$15.00	splice
447	Trenching per foot	$45.00	$45.00	trench
448	Resurfacing per foot	$10.00	$10.00	resurf
449	Conduit per foot	$4.00	$4.00	condft
450	Number of tubes	2	2	tubes
451	Manhole investment	$5,000.00	$5,000.00	manhinv
452	Manhole spacing	1000	500	manhsp
453	Buried installation per foot	$5.00	$5.00	burinst
454	Pole investment	450	450	poleinv
455	Pole spacing	150	150	polesp
456	Underground percent	35.00%	84.00%	ugfrac
457	Buried percent	50.00%	16.00%	burfrac
458	Aerial percent	0.15	0	airfrac
459				
460	**Call Attempts & DEMs**			
461				
462	*Call Attempts*			
463	Local	1	36,031,263,000	CALocal
464	IntraLata Intrastate	2	458,959,000	CARaRa
465	InterLata Intrastate	3	1,641,818,000	CAErRa
466	InterLata Interstate	4	2,668,080,000	CaErEr
467	Call Completion Fraction	0.70	0.72	CallComp
468				
469	*DEMs*			
470	Local	1	139,003,342	DEMsLocal
471	Intrastate	3	15,688,751	DEMsIntra
472	Interstate	5	19,822,230	DEMsInter
473	Local bus/res DEMs	1.1	1.1	LocalDF
474	Intrastate bus/res DEMs	2	2	IntraDF
475	Interstate bus/res DEMs	3	3	InterDF
476				
477	**Line Counts**			
478				
479	Residential	10	5,423,837	LCRes
480	Business	20	2,607,530	LCBus
481	Special Access	30	1,361,093	LCSA
482	Public	40	93,534	LCPub
483				

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
484	**Cable Costs**			
485	*Feeder*			
486	*Underground*			
487	Cable Size	Cost UG		
488	4200	74.25	72.88	FeedUG42
489	3600	63.75	65.29	FeedUG36
490	3000	53.25	57.15	FeedUG30
491	2400	42.75	49.56	FeedUG24
492	1800	32.25	39.85	FeedUG18
493	1200	21.75	26.26	FeedUG12
494	900	16.5	19.83	FeedUG9
495	600	11.25	14.81	FeedUG6
496	400	7.75	11.64	FeedUG4
497	200	4.25	8.86	FeedUG2
498	100	2.5	7.4	FeedUG1
499	*Aerial*			
500	Cable Size	Cost Aerial		
501	4200	74.25	107.5	FeedA42
502	3600	63.75	92.68	FeedA36
503	3000	53.25	72.75	FeedA30
504	2400	42.75	53.94	FeedA24
505	1800	32.25	32.72	FeedA18
506	1200	21.75	19.24	FeedA12
507	900	16.5	14.49	FeedA9
508	600	11.25	10.22	FeedA6
509	400	7.75	6.82	FeedA4
510	200	4.25	5.16	FeedA2
511	100	2.5	3.06	FeedA1
512				
513	*Distribution*			
514	*Underground*			
515	Cable Size	Cost UG		
516	3600	63.75	65.29	DistUG36
517	3000	53.25	57.15	DistUG30
518	2400	42.75	49.56	DistUG24
519	1800	32.25	39.85	DistUG18
520	1200	21.75	26.26	DistUG12
521	900	16.5	19.83	DistUG9
522	600	11.25	14.81	DistUG6
523	400	7.75	11.64	DistUG4
524	200	4.25	8.86	DistUG2
525	100	2.5	7.4	DistUG1
526	50	1.625	6.61	DistUG5
527	25	1.19	6.2	DistUG25
528	*Aerial*			

	B	C	D	E
12				Variable
13	Input Name	Default	Inputs	Name
14				
529	Cable Size	Cost Aerial		
530	3600	63.75	92.68	DistA36
531	3000	53.25	72.75	DistA30
532	2400	42.75	53.94	DistA24
533	1800	32.25	32.72	DistA18
534	1200	21.75	19.24	DistA12
535	900	16.5	14.49	DistA9
536	600	11.25	10.22	DistA6
537	400	7.75	6.82	DistA4
538	200	4.25	5.16	DistA2
539	100	2.5	3.06	DistA1
540	50	1.625	2.42	DistA5
541	25	1.19	1.83	DistA25
542				
543	*Fiber*			
544	*Underground*			
545	Cable Size	Cost UG		
546	216	13.1	28.38	FiberUG216
547	144	9.5	23.37	FiberUG144
548	96	7.1	16.46	FiberUG96
549	72	5.9	12.85	FiberUG72
550	60	5.3	12.85	FiberUG60
551	48	4.7	9.12	FiberUG48
552	36	4.1	7.48	FiberUG36
553	24	3.5	5.54	FiberUG24
554	18	3.2	5.54	FiberUG18
555	12	2.9	3.54	FiberUG12
556	*Aerial*			
557	Cable Size	Cost Aerial		
558	216	13.1	28.38	FiberA216
559	144	9.5	23.37	FiberA144
560	96	7.1	16.46	FiberA96
561	72	5.9	12.85	FiberA72
562	60	5.3	12.85	FiberA60
563	48	4.7	9.12	FiberA48
564	36	4.1	7.48	FiberA36
565	24	3.5	5.54	FiberA24
566	18	3.2	5.54	FiberA18
567	12	2.9	3.54	FiberA12
568				

	Input Name	Default	TX Staff Inputs	Variable Name
15	**Cost of Capital Factors**			
16	***Depreciation Lives***			
17	Loop Distribution	20	18.1	DistLife
18	Loop Feeder	20	19.8	FeedLife
19	Loop Concentrator	10	10.2	ConcLife
20	Wire Center	37	43.8	WireLife
21	End Office Switching	14.3	14.6	EOLife
22	Tandem Switching	14.3	14.6	TandLife
23	Transport Facilities	19	26.6	TransLife
24	Operator Systems	8	11.9	OpLife
25	STP	14	14.6	STPLife
26	SCP	14	14.6	SCPLife
27	Links	19	18.2	LinkLife
28	Public Telephones	9	9.8	PubLife
29	General Support	7	9.5	GenLife
30				
31	***Cost of Capital***			
32	Debt Percent	45.00%	41.89%	DebtP
33	Cost of Debt	7.70%	7.73%	DebtCost
34	Cost of Equity	11.90%	12.25%	EquityCost
35	*Equity Percent*	*55.00%*	*58.11%*	
36	*Overall Cost of Capital*	*10.01%*	*10.35%*	
37				
38				
39	**Misc Expense Factors**			
40				
41	Variable Overhead Factor	10.00%	11.57%	VarOvhd
55	Swithc line circuit offset per DLC line	$35.00	$8.75	CircOffs
56				
57	**Fill Factors**			
67	*Distribution*			
68	0-5	0.50	0.53	Dist0
69	5-200	0.55	0.53	Dist5
70	200-650	0.60	0.53	Dist200
71	650-850	0.65	0.53	Dist650
72	850-2550	0.70	0.53	Dist850
73	2550+	0.75	0.53	Dist2550
74				
75	**EO Switching Parameters**			
80	Switch Maximum Line Fill	0.8	0.895	MaxLineFill
326	**Misc Loop Investment Inputs**			
334	*Distribution structure % assigned to telephone*			

	Input Name	Default	TX Staff Inputs	Variable Name
335	aerial	0.33	0.78	AirDistTel
336	buried	0.33	1	BurDistTel
337	underground	0.33	0.67	UgDistTel
338				
339	*Feeder structure % assigned to telephone*			
340	aerial	0.33	0.78	AirFeedTel
341	buried	0.33	1	BurFeedTel
342	underground	0.33	0.67	UgFeedTel
371	**Digital Loop Carrier Inputs**			
372				
373	*SLC (TR-303)*			
374	site, housing, and power per remote terminal	$3,000.00	$14,874.32	SLChouse
375	maximum lines	672		SLCmaxlines
376	remote terminal fill factor	0.9	0.792	SLCfill
377	common equipment investment	$42,000.00	$109,370.00	SLCcomm
378	channel unit investment per line	$75.00	$85.72	SLCchan
379	DS-0s per fiber	$2,016.00		
380	Fibers per remote terminal	4		
381				
382	AFC			
383	site, housing, and power per remote terminal	$2,500.00	$9,885.57	AFChouse
384	maximum lines	100	192	AFCmaxlines
385	remote terminal fill factor	0.9	0.792	AFCfill
386	common equipment investment	$10,000.00	$72,688.00	AFCcomm
387	channel unit investment per line	$150.00	$85.72	AFCchan
388	DS-0s per fiber	2,016		
389	Fibers per remote terminal	4		
390				
391	Fiber feeder distance threshold, ft. (feeder length)	9,000	12,000	
392				
393	**Signaling Parameters**			
394				
395	STP Link Capacity	720		STPcap
396	STP Maximum Fill	0.8		STPfill
397	STP Investment, per pair, fully equipped	$5,000,000.00		STPInv
398	STP common equipment investment, per pair	$1,000,000.00		STPcomm
399	Link Termination, both ends	$900.00		LinkTerm
400	Signaling Link Bit Rate	56000		LinkRate
401	Link Occupancy	0.4	0.32	LinkOcc
402	C Link Cross-Section	24		LinkCross
403	ISUP messages per interoffice BHCA	6		ISUPmsgs
404	ISUP message length, bytes	25		ISUPlen
405	TCAP messages per transaction	2		TCAPmsgs
406	TCAP message length, bytes	100		TCAPlen
407	Fraction of BHCA requiring TCAP	0.1		TCAPFrac
408	SCP investment per transaction per second	$20,000.00		SCPInv

	Input Name	Default	TX Staff Inputs	Variable Name
425	**Transport Investment**			
437	*Medium Investment*			
438	Fraction of structure assigned to telephone	0.33	1	telfrac

The ILECs' Depreciation Reserve Problem

My name is John P. Lube. I am employed by Southwestern Bell Telephone Company (SWBT). I am currently the Director-Capital Recovery for SWBT. In this capacity, I am responsible for the timely and systematic depreciation of all of SWBT's depreciable assets in its five-state territory. This responsibility includes the determination of economic lives and future net salvage percentages for SWBT's depreciable assets.

The following is my response to Comments filed by other parties in this proceeding. Specifically, I support Comments filed by USTA regarding depreciation, and show that Comments filed by AT&T and MCI regarding depreciation are wrong.

I. The Existence and Size of the ILECs' Depreciation Problem

As explained in my affidavit attached to SWBT's Comments in the instant proceeding ("previous affidavit"), there is an ILEC depreciation problem: the ILECs' existing network is under-depreciated and under-recovered.[1] The ILECs have estimated the amount of depreciation catch-up needed, as of the end of 1996, to be approximately $17.9 billion (unseparated), of which approximately $4.5 billion is interstate.[2] Strategic Policy Research (SPR) not only supports the existence of this problem, but also demonstrates that the ILECs' estimate of the size of this problem is conservative.[3]

On the other hand, MCI claims the interstate amount of the ILECs' under-depreciation is approximately $0.2 billion.[4] MCI's claim is absurd. MCI clumsily relies on a report, titled Depreciation Policy in the Telecommunications Industry: Implications for Cost Recovery by the Local Exchange Carriers, prepared by MiCRA on behalf of MCI.[5] Irrespective of the amount of under-depreciation actually claimed by MCI or MiCRA, the MiCRA report simply concludes that the ILECs do not have a depreciation problem.[6] The MiCRA report, however, is inaccurate, superficial, and misleading.

To determine whether an ILEC depreciation problem exists, MiCRA uses the ILECs' own "theoretical reserve"[7] studies filed with the FCC in 1994.[8] As MiCRA itself

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[1] "Economic Analysis of Depreciation Catch-Up Issues", John P. Lube, Appendix 2 to SWBT Comments, CC Docket No. 96-262, filed January 29, 1997.

[2] USTA Comments, CC Docket No. 96-262, filed January 29, 1997, page 74 and Attachment 13.

[3] "The Depreciation Shortfall", SPR, Attachment 15 to USTA Comments, CC Docket No. 96-262, filed January 29, 1997.

[4] MCI Comments, CC Docket No. 96-262, filed January 29, 1997, page 72.

[5] Ibid., page 72, footnote 108. This MCI footnote explains that the interstate reserve deficit of $0.2 billion was obtained by applying a 25% interstate separations factor to the unseparated reserve deficit shown in Table 5 of the MiCRA report. However, MiCRA's Table 5 shows an unseparated deficit of approximately $3.3 billion. Apparently, MCI clumsily applied the 25% twice (i.e., 25% of 25%, or approximately 6%) to the $3.3 billion amount to obtain $0.2 billion.

[6] "Depreciation Policy in the Telecommunications Industry: Implications for Cost Recovery by the Local Exchange Carriers", MiCRA, December 1995, page 2, first full paragraph.

[7] See John P. Lube, op. cit., pp. 3-4, for a definition and description of a theoretical reserve.

points out, the FCC requires the ILECs to file these annual theoretical reserve studies using FCC-prescribed lives.[9] MiCRA simplistically concludes that, because these theoretical reserve calculations show no significant reserve deficiency (when compared to the ILECs' book reserves), there is no ILEC depreciation problem. This could appear to be a convincing argument, if only it were not based on circular logic. That is, MiCRA assumes that the FCC's prescribed lives are correct in order to "prove" that the FCC's prescribed lives are correct. Therefore, MiCRA's approach is circular logic, and proves nothing. Hence, MiCRA's conclusion is unfounded.

Besides, these prescribed lives are precisely the cause of the ILECs' depreciation problem. In fact, the ILECs' regulated depreciation lives are too long, their regulated reserves are deficient, their regulated depreciation expense has been understated, and, as a consequence, their past regulated earnings have been over-stated, all because of past regulatory depreciation policies.[10]

MiCRA also claims that its conclusions are corroborated by the $5.0 billion unseparated reserve deficit obtained from a theoretical reserve calculation using the life proposals made by the ILECs to the FCC in triennial represcriptions from 1992 to 1994.[11] In this instance, MiCRA incorrectly assumes that the asset lives needed by (and currently proposed by) the ILECs, based on economic evaluations of their plant, would be the same as their 1992-1994 life proposals, which were based on the FCC's prescribed depreciation study methods. Besides, much has changed in the telecommunication industry even since 1992. Significant regulatory and legislative measures promoting competition have emerged since 1992. More technology advances have occurred since then. Therefore, even this comparison by MiCRA is invalid. If MiCRA had wanted to use a period of time more representative of the ILECs' current views of their assets' lives, they would have chosen life proposals from the ILECs' triennial studies submitted to the FCC over the last few years.[12] Once again, MiCRA has proved nothing.

II. **Inadequacy of Past Regulatory Represcriptions**

AT&T claims that the ILECs "have had substantial latitude and [have] been successful" in obtaining needed increases in depreciation expense from the FCC.[13] AT&T further claims the ILECs have had ample opportunity to seek adjustments to price regulation to recover the additional depreciation resulting from shorter lives.[14] AT&T is wrong. Not only has SWBT not been able to obtain the shorter lives and increased

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[8] MiCRA, op. cit., pp. 12-13.
[9] Ibid.
[10] John P. Lube, op. cit., page 13 (first and second full paragraphs).
[11] MiCRA, op. cit., pp. 15-17.
[12] Life proposals filed with the FCC over the last few years in ILECs' technical update studies (i.e., not the triennial studies) usually do not reflect the true economic lives needed by the ILECs for major, technology-driven accounts because of the limitations placed on technical update studies by the FCC's "simplification" rules ordered in CC Docket No. 92-296 (FCC 93-452, released October 20, 1993).
[13] AT&T Comments, CC Docket No. 96-262, filed January 29, 1997, page 35.
[14] Ibid., page 32 (bottom paragraph).

depreciation expense it sought in FCC represcriptions since divestiture,[15] but also, the inadequate increases SWBT did receive from these represcriptions were not allowed in prices because such depreciation changes were defined in the FCC's price cap rules as endogenous.

AT&T also claims that the ILECs have failed to anticipate "commercial and technological developments" in their depreciation proposals to the FCC.[16] On the other hand, MCI states that it "strains belief to think LECs have been caught off guard at the possibility of encountering local competitors."[17] Once again, SWBT's past represcription proposals to the FCC since divestiture prove that it was anticipating the changing industry (in terms of both the technological obsolescence and the acceleration of that obsolescence caused by competition). However, not only did the FCC not accept those SWBT proposals when they were made, but also the industry has undergone even further, significant technological and competitive changes since those proposals were made to the FCC. The point is, SWBT has been trying, unsuccessfully, to not be "caught off guard."

AT&T makes the further claim that "ILECs chose not to dedicate their surplus profits to cost recovery."[18] AT&T's suggestion is, at best, creative, but not at all allowable or logical. First, the amount of depreciation cost the FCC allows the ILECs to book is specified by FCC represcriptions; the ILECs cannot choose to book more depreciation (i.e., as some kind of reduction to regulated profit or as anything else). Second, under the mandatory sharing arrangements of the FCC's previous price cap rules, ILECs were obligated to compute sharing based on regulated earnings (which reflected regulated depreciation expense); if the FCC had allowed ILECs to reduce regulated earnings to offset additional depreciation, and thereby reduce sharing, AT&T and other IXCs likely would have cried "foul."[19] Third, because any firm knows it cannot take earnings, once reported, and retroactively dedicate them to additional cost recovery in that accounting period, AT&T might be suggesting that the ILECs should have sought higher depreciation prospectively; however, the evidence clearly shows that SWBT did continue to request higher depreciation in its triennial represcriptions, but did not obtain the shorter lives and increased depreciation it sought.

While my previous affidavit provides some explanation as to why FCC-prescribed lives and reserves are inadequate,[20] additional evidence is available. The FCC's past actions have clearly acknowledged the inadequacy of past life prescriptions (and the resulting reserve problems). For example, in the mid-1980s, the FCC recognized that even their recently-adopted remaining life depreciation method would not eliminate the

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[15] John P. Lube, op. cit., table on page 7.
[16] AT&T, op. cit., pp. 32-33.
[17] MCI, op. cit., page 74.
[18] AT&T, op. cit., page 35.
[19] For example, see AT&T's Comments, CC Docket No. 92-296, filed March 10, 1993, page 8 (bottom paragraph); and MCI's Comments, CC Docket No. 92-296, filed March 10, 1993, page 6 (first full paragraph).
[20] John P. Lube, op. cit., pp. 5-6 and 12-14.