TABLE 2

INVESTMENT COMPARISONS

	Unit Investment	Hatfield Model Estimates per line	CPM Per line	Total Hatfield Model Understatement
1	Feeder - Total	$ 25.79	$ 87.69	$ 569 Million
1a	Feeder	N/A	$ 65.13	-
1b	SAI	N/A	$ 22.56	-
2	Distribution - Total	$ 131.78	$ 235.54	$ 522 Million
2a	Distribution	N/A	$ 184.17	-
2b	Terminal	N/A	$ 50.99	-
3	Support Structure	$ 0	$ 90.91	$ 875 Million
4	Drop	$ 40.00	$ 50.55	$ 107 Million
5	Loop Electronics	$ 85.89	$ 139.69	$ 529 Million
6	Total Switch + IOF	$ 194.75	$ 242.11	$ 482 Million
6a	TS Switching	In Switch	$ 122.22	-
6b	NTS Switching	In Switch	$ 119.89	-
6c	Switching	$ 191.49	-	-
6d	IOF	$ 3.26	In TS Switch	-
	Total Investment	$ 478.22	$ 846.11	$ 3,604 Million

The most noticeable difference is that the Hatfield understates investments for <u>every</u> type of plant. The largest understatements are for the various categories of loop investment. The single largest difference is that the Hatfield Model assigns <u>no</u> investment for support structure to Universal Service. The Hatfield Model identifies a support structure investment, and an annual capital cost of $173 Million, but then excludes that cost from it's **subsidy calculation.**

20. Q. Are there any explanations of why the Hatfield Model understates loop investments for residential service?

A. Yes. AT&T MCI have described that the Hatfield Model calculates an average loop investment for each loop in a particular studied area. It then calculates the subsidy requirement for the study area by first subtracting the investments associates with business loops in the study area. In this calculation it assumes that both business and residence loops in the area have the same investment (the average loop investment of the area).

Pacific's OANAD TSLRIC studies indicate the distribution plant portion of residence loops tends to be significantly longer than the distribution plant portion of business loops (more than 70% longer). Additionally, the associated distribution plant costs of the buried terminals and drops of residential service loops are costs not offset by lower cost business service loop equivalents. The net effect is that the distribution plant and related costs for residential service loops are more than 70% more costly than for business service loops. This difference accounts for three fourths of the $40 annual capital cost difference between business and residence service loops. As these cost differences are relatively independent of study area differences, the effect of the Hatfield Model's averaging of the loop investments is to significantly overstate the investment for a business loop and to significantly understate the investment for a residence loop in the same study area.

Pacific's CPM does not yet have all of the business service loop data to enable it to determine the subsidy for business loops in high cost areas. We expect to

have that data and the resulting subsidy calculation by early May, if not sooner. (ALJ Ruling, February 21, 1996, Question 5).

IV. Pacific Bell's Cost Proxy Model (CPM) accurately estimates costs of providing Universal Service.

21. Q. **How is Pacific Bell's Cost Proxy Model superior to the Hatfield Model?**

A. Pacific Bell's Cost Proxy Model (CPM) is far superior to the Hatfield Model in accurately estimating costs of providing Universal Service for the following reasons:

- The expenses input to the Cost Proxy Model are estimated expenses per line of providing universal service that can reflect the best available data for each company, not estimates derived by applying factors from embedded cost relationships, expenses for New Hampshire in 1992, or factors from the airline industry.
- The investments input to the Cost Proxy Model reflect forward looking engineering guidelines for placing equipment, and appropriate long run equipment prices charged by equipment vendors, not estimates derived from other states or short term special price discount deals.

The inputs into the Cost Proxy Model can reflect OANAD cost studies identified following the Total Service Long Run Incremental Cost study principles adopted by the CPUC (D. 95-12-016, Appendix C), not embedded

costs and relationships from other companies in other states, or other cost studies determined using unknown principles.

22. Q. What relationship is there, if any, between the cost data used for the proxy cost model, and the cost data prepared for the OANAD? (ALJ Ruling, February 21, 1996, Question 8).

A. The cost data used for Pacific's proprietary Cost Proxy Model (CPM) is virtually identical to that prepared for Pacific's OANAD TSLRIC showing. The cash operating expenses identified in the OANAD studies are inputs to the CPM. The forward looking unit investments used as inputs to the CPM are the same as those used as inputs to Pacific's OANAD studies, as are the characteristics of the use of that investment (e.g., lengths of feeder cables, cable locations, type of plant). The only difference in the inputs to the models is that the plant utilizations used to size feeder plant for the OANAD study is the theoretical maximum, consistent with the capacity cost definitions used for OANAD, while the utilizations used to size feeder plant for the CPM are the actual expected utilizations appropriate for the Universal Service cost calculation.

The non-proprietary version of the CPM relies on data from commercial databases and other public sources. It does not use any proprietary date from Pacific's TSLRIC cost studies.

1 ***V. What are the cost differences associated with providing***
2 ***customers the choice of flat or measured rate service,***
3 ***and the technical feasibility of providing that choice?***

4 23. Q. What are the cost differences associated with providing customers the choice
5 of flat or measured rate service, and the technical feasibility of providing that
6 choice? (ALJ Ruling, February 21, 1996, Question 4).

7 A. The cost differences between providing residential flat rate service and
8 residential measured rate service are the different costs of the unbilled usage
9 provided with each service. The volume sensitive TSLRIC of the average
10 unbilled usage for each of the residential services was identified in Pacific's
11 OANAD showing. Because of the wide variations in the amount of unbilled
12 local usage between customers with flat rate residential service, there is a
13 correspondingly large variation in the cost of providing that usage. Each of
14 Pacific Bell's central office switches is capable of providing either flat or
15 measured service.

16 24. Q. Does this conclude your testimony?

17 A. Yes.

Exhibit : _____
Commissioner : Comm. Knight
Adm. Law Judge: J. Wong

CALIFORNIA PUBLIC UTILITIES COMMISSION

UNIVERSAL SERVICE PROCEEDING

R.95-01-020
I.95-01-021

Reply Report of The Division of Ratepayer Advocates Regarding the Cost Proxy Models and Other Universal Service Issues

San Francisco, California
April 24, 1996

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CHAPTER 1
SUMMARY

1. Pursuant to Administrative Law Judge (ALJ) Wong's April 3, 1996 Ruling DRA hereby submits its reply report. DRA's reply report is limited to certain issues raised by other parties in their opening testimony, and provides the incremental effects for four recommended modifications to the Cost Proxy Model (CPM) that were discussed in DRA's opening report.

2. Chapter 1 and Chapter 3 of this reply report are sponsored by the Project Manager, Angela Young. In Chapter 3, DRA will discuss the development of expense estimates for the Hatfield Proxy Model (HPM) and the subsidies for small and mid-size local exchange carriers (LECs). Chapter 2 is sponsored by Hassan Mirza. In that chapter, DRA will provide the incremental changes to the CPM results based on four recommended modifications that were discussed in DRA's opening report. Chapter 4 is sponsored by Zenaida Conway. In that chapter, DRA will address certain issues relating to implicit subsidies.

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CHAPTER 2
MODELS

I. INTRODUCTION

3. Several parties, including DRA, filed opening testimony discussing Pacific's Cost Proxy Model (CPM) and AT&T/MCI's Hatfield Proxy Model [1] DRA's reply report concerning the models is limited to certain points raised by other parties in their opening testimony. Further, in this reply report, DRA provides the incremental changes for four items that were discussed in its opening report.

II. INCREMENTAL CHANGES

4. On Pages 3-6, and 3-8 and 3-9 of DRA's opening report[2], DRA discussed four changes the Commission should adopt for the CPM model. These four changes are as follows:

- Use of two copper pairs for buried drop plant;
- Use of "design" utilization factor for feeder plant and pair gain systems;
- Use of fiber plant for feeder plant greater than 12,000 feet; and
- Use of switch costs that reflect higher vendor's discount

Table 1 shows the incremental impact by density zones and statewide for the above mentioned four changes.

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1. Besides DRA, Pacific and AT&T/MCI also provided opening testimony discussing both models in great detail. Other parties also provided comments relating to the two models.

2. DRA's opening testimony is entitled "OPENING REPORT OF THE DIVISION OF RATEPAYER ADVOCATES REGARDING THE COST PROXY MODELS AND OTHER ISSUES IN THE UNIVERSAL SERVICE PROCEEDING."

A. Two Copper Pairs

5. As discussed in paragraph 9 of Chapter 3 of DRA's opening report, if one spreads the drop cost for buried plant (along with underground plant) over two copper pairs instead of one copper pair, this will reduce the subsidy level on a statewide basis by $3.308 million, or 2.3%, per month. The annual subsidy reduction is estimated to be about $39.696 million per year.

B. Design Utilization

6. As discussed in paragraph 12 of Chapter 3 of DRA's opening report, using the design utilization factor, instead of actual utilization factor, for feeder and pair gain systems reduces the subsidy level on a statewide basis by $7.560 million, or 5.3%, per month. The annual subsidy reduction is estimated to be about $90.720 million. DRA recognizes that there may be an off-setting increase in certain expenses such as maintenance expenses may increase; however, Pacific has not been able to list these expenses, neither support nor document this increase.

C. Fiber Feeder Cut-off

7. As discussed in paragraph 13 of Chapter 3 of DRA's opening report, utilizing the premise that CPM should reflect fiber in feeder plant greater than 12,000 feet reduces the subsidy level on a statewide basis by $11.967 million, or 8.3%, per month. The annual subsidy reduction on a statewide basis for this revision is estimated to be about $143.604 million. DRA recognizes that there may be an off-setting increase in certain investment and expenses but Pacific has not been able to list these expenses and investment, neither support nor document this increase.

D. Switching Cost

8. As discussed in paragraph 14 of Chapter 3 of DRA's opening report, utilizing the premise that CPM should reflect the maximum possible discount for switching costs reduces the subsidy level on a statewide basis by $15.208 million, or 10.6%, per month. The annual subsidy reduction is estimated to be about $182.496 million.

9. Pacific's witness, Richard L. Scholl, on page 16 of his testimony,[3] discussed the "life cycle price variations" for switching equipment. Mr. Scholl listed five phases for the lifecycle price variations for switching equipment. As listed on pages 16 and 17 of Mr. Scholl's testimony, the five phases of lifecycle are as follows:

- Premium prices for products just introduced.
- Competitive, but still relatively high, prices for the still new products.
- Significant price discount for products that are now standard in the market. Pacific's current vendor prices reflect agreements with the two vendors that were signed in 1992.
- Price increases after the expiration of the current agreements. This price increase is to reflect relatively low volume of purchases just to meet growth demands.
- Further price increases as old technology is phased out.

10. The third phase of the lifecycle is the point at which Pacific was able to obtain the best prices for a digital

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3. "Testimony of R. L. Scholl-Universal Service Proxy Cost Models, dated April 17, 1996.

switches. DRA examined vendor's prices for DMS-100 and 5-ESS switches in this phase and therefore, adjusted the switching costs in the CPM to reflect the maximum possible discounts for the purchase of the switches. However, DRA does not agree with Pacific that any changes in the prices for digital switches in the future (Phase IV would have to be higher. In any event, any estimates made today of prices for digital switches for future contract would be speculative at best.

11. In order to recognize some DMS-100 and 5-ESS switches that were purchased prior to the 1992 contracts, DRA has requested from Pacific information on how many residence access lines were connected to digital switches purchased before the 1992 contracts. DRA also requested data on how many residence access lines are to be connected with the new contract. Pacific has not provided the requested information. If Pacific is able to provide further information along with supporting documents, then DRA might reconsider its recommended annual subsidy reduction of $182.49 million.

E. Total Incremental Changes

12. DRA recommends that the Commission adopt the four changes in the CPM as described above. These four changes on a statewide basis would reduce the annual subsidy level by about $455.516 million, or about 25%, from Pacific's CPM estimate of $1,720.176 million.

III. OTHER CHANGES

13. DRA is examining two changes or adjustments that were recommended by Dr. Lee L. Selwyn on behalf of The California Telecommunications Coalition. The two adjustments are for revised ("A" and "B" costs for copper cable, and the sharing of poles with other utilities other than with Pacific Gas & Electric Company.

14. On page 68 of his testimony[4], Dr. Selwyn cites in a footnote 91 that "Pacific has recently indicated that it is substantially revising the "A" and "B" loop cost inputs to the CPM." DRA is not aware of this change that supposedly was made by Pacific on April 3, 1996.

15. DRA is still evaluating the "A" and "B" copper cable cost changes, the sharing of poles with other non-electrical utilities, switching costs, design utilization, etc. Based upon findings of its evaluation, DRA may submit supplemental testimony addressing any further adjustments to the CPM.

16. On page 87 of his testimony[5], Dr. Selwyn cites that Pacific used "economic lives" in the CPM model. Dr. Selwyn stated that "at a minimum, the Company should be required to to use CPUC-prescribed depreciation lives and rates." DRA agrees with Dr. Selwyn that CPM should reflect CPUC approved depreciation lives and CPUC approved depreciation rates. CPUC has always prescribed depreciation lives for intrastate jurisdiction with staff review, public comment and public hearing process. CPUC uses the Straight-Line Remaining Life method to set the depreciation rates and does not allow the use of Equal Life Group and reserve deficiency amortizations. Therefore, DRA recommends that CPM be adjusted to reflect CPUC-prescribed rates, instead of Pacific's economic lives.

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4. "Testimony and Exhibit of Lee L. Selwyn on behalf of The California Telecommunications Coalition," dated April 17, 1996.

5. Ibid, page 87.

CHAPTER 3

EXPENSE ESTIMATES FOR THE HPM AND SUBSIDIES FOR SMALL AND MID-SIZE LECs

I. EXPENSE ESTIMATES FOR THE HPM

17. DRA essentially agrees with Pacific's statement that the HPM "includes uncollectables using a cost factor that will inappropriately calculate large uncollectables in high cost areas." [6] The HPM assumes an uncollectible factor of 1.4%. The amount of uncollectibles is calculated by applying this percentage to the total volume sensitive cost of the basic service. (Table 2, Attachments) This approach is generally acceptable. However under the Commission's subsidy mechanism proposal, the recovery of the cost of basic service in the high cost areas would have two sources: 1) the high cost voucher fund and 2) end-users through their monthly basic service rates. DRA disagrees with the HPM's implication that the risk of uncollectibles is the same for the high cost voucher fund as it is for end-users. The HPM should assign appropriate risk factors of uncollectibles for these two different sources of revenue.

18. Furthermore, in review of the HPM's development of expense estimates, DRA notes that the HPM treated structure capital costs[7] as shared costs and network capital costs as volume-sensitive direct costs. However, the general support cost, which is intended as a direct cost, is calculated by applying a factor to the sum of the structure and network capital costs. (Table 2.) Thus, the general support cost as developed by the HPM is not wholly a direct cost but rather a hybrid of shared and direct costs. DRA believes that the HPM should be adjusted so that only the direct portion of the general support costs are included as direct costs, and the shared portion of the

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6. Testimony of R.J. Scholl at page 12.
7. Testimony of Robert A. Mercer at page 20.

general support costs are included as shared costs of basic service.

II. SMALL LECS AND MID-SIZE LECS

19. In their testimony, Roseville Telephone Company[8] and 9 small independent LECs[9] assert that subsidies for the support of universal service for their service areas should be based on their actual respective costs. These companies' estimated actual cost information is presently before the Commission in connection with their general rate cases. DRA disagrees with their proposal. The Commission has stated that it intends to rely on the proxy cost model results to set the amount of subsidies in high cost areas.[10] The proxy cost model should develop the cost of basic service based on TSLRIC.[11] Furthermore, the proxy cost model should be independent of a particular company's costs.[12] The subsidies that these 10 LECs propose are LEC-specific and based on embedded costs and embedded technology. Therefore, their proposals are inconsistent with the Commission's stated methodology and should not be adopted

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8. Opening Testimony of Greg R. Gierczak at page 3.
9. Opening Testimony of David Tutt on behalf of Calaveras Telephone Company, California-Oregon Telephone Company, Ducor Telephone Company, Foresthill Telephone Company, Happy Valley Telephone Company, Hornitos Telephone Company, The Ponderosa Telephone Company, Sierra Telephone Company, Inc., and Winterhaven Telephone Company at page 2.
10. D.95-12-021 at page 5.
11. Universal Service OIR/OII, proposed rule 6.A.3.
12. Id. at page 7.

CHAPTER 4
IMPLICIT SUBSIDIES

20. DRA addresses in this chapter certain issues raised by parties in their response to Q.10 of the February 21, 1996, ALJ Ruling. Specifically, DRA responds to the rate rebalancing proposal of the LECs and to AT&T's proposal to use Yellow Page revenues as an offset to the universal service subsidy.

I. IMPLICIT SUBSIDIES AND RATE REBALANCING

21. Pacific, GTEC, and Citizens agree that the implicit subsidies in the current rate structure of the LECs should be identified and be made explicit through the adoption of a universal service subsidy mechanism.[13] They propose that the universal service subsidy be based on the TSLRIC of basic service plus a reasonable contribution toward shared and common costs. They further propose that once the universal service funding mechanism is in place, the Commission could then decrease the subsidies implicit in LEC rates and allow "rate rebalancing in the form of rate reductions to offset any net positive amounts" the LEC receives from the fund.[14] Pacific would apply such rate reductions to end-user services, such as toll, instead of to intrastate switched access. GTEC and Citizens, on the other hand, would have such reductions apply to rates of access, toll, local exchange, and other services currently providing implicit subsidies.

22. As a matter of policy, DRA fully endorses the proposal that the Commission should not allow the universal service fund to provide a windfall for the incumbent LECs. DRA agrees that to

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13. Opening testimonies of R. G. Mitchell (Pacific), pp. 7, 14-15, 20, 24; R. Emmerson (Pacific), pp. 8 and 11; D. Weller (GTEC), pp. 16-17; W. Lafferty (Citizens), pp. 7-8, 11.

14. Opening Testimony of R.G. Mitchell (Pacific), p. 20.

the extent the incumbent LECs derive a net gain from the fund, the Commission might consider the LECs' offer to implement offsetting rate reductions for services that are currently generating implicit support to basic services.[15] DRA is concerned, however, that such rate reduction proposals might lead to a more extensive and contentious rate rebalancing exercise, which DRA believes is best considered in a future proceeding as the Commission intends to do.[16]

II. YELLOW PAGES REVENUES

23. AT&T argues that the incumbent LECs' Yellow Pages directory business is a de facto monopoly with large profit margins that historically has been used to subsidize universal service. AT&T suggests that it is economically efficient to use Yellow Page revenues to subsidize basic service because of externalities -- i.e., the demand for Yellow Page advertising being directly related to subscribership to basic service. AT&T therefore recommends that profits from Yellow Pages be used as a source of funding for universal service and be used as an offset to the universal service subsidy fund.[17]

24. While DRA generally agrees with AT&T's characterization of the LECs' Yellow Pages business, DRA differs with AT&T on how to use the net revenues from Yellow Pages. As DRA discussed in its opening report, instead of using Yellow Pages revenues as an offset to the universal service subsidy, these revenues should be allowed to flow to the incumbent LECs as a means to recover portions of shared and common costs not recovered through rates for unbundled BNF services and other services which DRA proposes should be priced at TSLRIC. Channeling the Yellow Pages revenues

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15. Examples of the types of price changes being proposed by Pacific are discussed in R. G. Mitchell's opening testimony, pp. 22-24.
16. See D.96-04-060 at page 11.
17. Opening Testimony of L. Selwyn (AT&T), pp. 91-102.

as an offset for the LECs' shared and common costs rather than as a direct subsidy for universal service will not divert these revenues to the LECs' shareholders, as AT&T argues.[18] To the contrary, under DRA's proposal, the profits derived from Yellow Pages would essentially be used to keep rates low for inputs that competing carriers purchase from the LECs; hence, would serve to subsidize the competitive process. DRA believes that its proposal offers the most reasonable balance between the competing interests of the LECs and CLCs, while promoting ratepayer interests through potentially lower prices and increased competitive choices in the market.

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18. Id., p. 102.

TABLES

Cost Proxy Model - Sensitivity Runs

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Statewide
CPM OUTPUT WITHOUT DRA'S MODIFICATIONS								
1. Total Operating and Capital Cost	$117.25	$53.82	$44.41	$31.73	$27.21	$24.60	$21.19	$26.81
2. Subsidy Per Line Per Month	$100.70	$37.62	$28.43	$15.69	$11.31	$9.08	$6.11	$11.20
3. Access Lines	77,113	268,156	348,418	768,422	3,260,956	5,820,827	2,251,089	12,794,983
4. Total Subsidy Per Month	$ 7,765,060	$ 10,089,113	$ 9,904,995	$ 12,057,813	$ 36,874,864	$ 52,844,728	$ 13,754,901	$ 143,347,588
MODIFICATIONS								
Drop Assumption								
5. Total Operating and Capital Cost	$116.60	$53.16	$43.77	$31.34	$26.96	$24.35	$21.05	$26.55
6. Subsidy Per Line Per Month	$100.05	$36.96	$27.79	$15.31	$11.06	$8.83	$5.97	$10.94
7. Subsidy Amount Per Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$51,418,664	$13,431,606	$140,039,566
8. Incremental Subsidy Amount Per Month (L7-L4)	($50,140)	($177,456)	($223,114)	($297,101)	($810,851)	($1,426,064)	($323,295)	($3,308,022)
9. Incremental Subsidy Per Line Per Month (L8/L3)	($0.65)	($0.66)	($0.64)	($0.39)	($0.25)	($0.24)	($0.14)	($0.26)
10.Incremental Change Per Month(L8/L4)	-0.65%	-1.76%	-2.25%	-2.46%	-2.20%	-2.70%	-2.35%	-2.31%
. Utilization Assumption								
11. Total Operating and Capital Cost	$101.58	$51.06	$42.52	$31.17	$26.73	$24.19	$20.72	$26.22
12. Subsidy Per Line	$85.03	$34.87	$26.54	$15.14	$10.83	$8.67	$5.64	$10.61
13. Subsidy Amount Per Month	$6,556,617	$9,349,404	$9,246,168	$11,633,397	$35,316,876	$50,458,859	$12,693,005	$135,787,764
14 Incremental Subsidy Amount Per Month (L13-L4)	($1,208,443)	($739,709)	($658,827)	($424,416)	($1,557,988)	($2,385,869)	($1,061,896)	($7,559,824)
15. Incremental Subsidy Per Line Per Month (L14/L3)	($15.67)	($2.76)	($1.89)	($0.55)	($0.48)	($0.41)	($0.47)	($0.59)
16. Incremental Change Per Month (L14/L4)	-15.56%	-7.33%	-6.65%	-3.52%	-4.23%	-4.51%	-7.72%	-5.27%
Fiber Feeder Cutoff Assumption								
17. Total Operating and Capital Cost	$112.59	$52.61	$43.45	$31.17	$27.03	$24.18	$21.02	$25.89
18. Subsidy Per Line	$96.29	$36.46	$27.44	$15.17	$11.13	$8.69	$6.03	$10.30
19. Subsidy Amount Per Month	$3,888,175	$9,212,548	$9,860,609	$12,077,177	$38,905,676	$52,456,428	$10,745,352	$131,380,580
20. Incremental Subsidy Per Month (L19-L4)	($3,876,885)	($876,565)	($44,386)	$19,364	$2,030,812	($388,300)	($3,009,549)	($11,967,008)
21. Incremental Subsidy Per Line Per Month (L20/L3)	($50.28)	($3.27)	($0.13)	$0.03	$0.62	($0.07)	($1.34)	($0.94)
22. Incremental Change Per Month (L20/L4)	-49.93%	-8.69%	-0.45%	0.16%	5.51%	-0.73%	-21.88%	-8.35%
Switching Assumption								
23. Total Operating and Capital Cost	$115.18	$51.88	$42.73	$30.22	$25.94	$23.44	$20.35	$25.62
24. Subsidy Per Line	$98.63	$35.69	$26.75	$14.19	$10.04	$7.92	$5.27	$10.01
25. Subsidy Amount Per Month	$7,605,939	$9,569,653	$9,320,923	$10,901,677	$32,744,150	$46,083,111	$11,857,846	$128,139,413
26. Incremental Subsidy Amont Difference (L25-L4)	($159,121)	($519,460)	($584,072)	($1,156,136)	($4,130,714)	($6,761,617)	($1,897,055)	($15,208,175)
27. Incremental Subsidy Per Line Per Month (L26/L3)	($2.06)	($1.94)	($1.68)	($1.50)	($1.27)	($1.16)	($0.84)	($1.19)
28. Incremental Change Per Month (L26/L4)	-2.05%	-5.15%	-5.90%	-9.59%	-11.20%	-12.80%	-13.79%	-10.61%

HPM - TOTAL CALIFORNIA
Basic Serivce Cost per Line
Source: Mercer Testimony Attachment 4B

	Density Zones – >	0-5 (a)	5-200 (b)	200-650 (c)	650-850 (d)	850-2550 (e)	>2550 (f)	Avg (g)
1	**Total Investments**	**$2,430.88**	**$894.52**	**$588.91**	**$518.29**	**$449.95**	**$389.27**	**$481.34**
2	**Total Number of Bus/Res Lines**	**146,183**	**1,308,261**	**1,573,499**	**617,764**	**6,031,350**	**8,995,698**	**18,672,755**
3	**Monthly Shared Costs:**							
4	Structure Capital Cost	$20.59	$1.77	$0.41	$0.29	$0.75	$0.77	$0.94
5	Tax (5% of ln 8)	1.17	0.10	0.02	0.02	0.04	0.04	0.05
6	Overhead (6% of ln 8)	1.40	0.12	0.03	0.02	0.05	0.05	0.06
7	Uncollectible (1.4% of ln 8)	0.33	0.03	0.01	0.00	0.01	0.01	0.02
8	**Total Monthly Shared Costs**	**$23.50**	**$2.02**	**$0.46**	**$0.34**	**$0.86**	**$0.88**	**$1.08**
9	**Monthly Volumne Sensitive Costs:**							
10	Network Capital Cost	$28.34	$10.43	$6.87	$6.04	$5.25	$4.54	$5.61
11	General Support Capital Cost	4.79	1.19	0.71	0.62	0.59	0.52	0.64
12	Network Expenses	7.15	2.59	1.66	1.45	1.27	1.10	1.37
13	Network Operations	4.15	4.17	4.18	4.18	4.19	4.20	4.19
14	Network Support	0.41	0.08	0.04	0.03	0.03	0.03	0.04
15	Customer Support	0.70	0.70	0.70	0.70	0.70	0.70	0.70
16	Billing and Collection	0.55	0.55	0.55	0.55	0.55	0.55	0.55
17	White Pages	0.15	0.15	0.15	0.15	0.15	0.15	0.15
18	Operator Services non-charged	0.07	0.05	0.04	0.04	0.03	0.02	0.03
19	Tax (5% of ln 22)	2.63	1.13	0.85	0.78	0.72	0.67	0.75
20	Overhead (6% of ln 22)	3.16	1.36	1.02	0.94	0.87	0.80	0.91
21	Uncollectible (1.4% of ln 22)	0.74	0.32	0.24	0.22	0.20	0.19	0.21
22	**Total Monthly Vol Sen Costs**	**$52.85**	**$22.73**	**$17.00**	**$15.71**	**$14.55**	**$13.47**	**$15.15**
23	**General Support Capital Cost (ln 9/(ln 2 + ln 8))**	**9.79%**	**9.79%**	**9.79%**	**9.79%**	**9.79%**	**9.79%**	**9.79%**

APPENDIX A
REPLY TESTIMONY

REPLY TESTIMONY

OF

ANGELA YOUNG

Q.1. Are you the same Angela Young who prepared the "Qualification and Prepared Testimony of Angela Young" as part of the Opening Report of the Division of Ratepayer Advocates Regarding the Cost Proxy Models and Other Issues in the Universal Service Proceeding that was mailed on April 17, 1996?

A.1. Yes, I am.

Q.2 What is the purpose of this reply testimony?

The purpose of this reply testimony is to present Chapter 1 and Chapter 3 of DRA's "Reply Report of the Division Ratepayer Advocates Regarding the Cost Proxy Models and Other Universal Service Issues." This reply testimony presents DRA's response to certain issues raised by other parties in this proceeding. Specially, DRA responds to the expense estimates for the HPM and to the subsidy proposal for the small and mid-size LECs.

Q.3 Does this conclude your testimony?

A.3. Yes, at this time

REPLY TESTIMONY

OF

HASSAN M. MIRZA

Q.1. Are you the same Hassan M. Mirza who prepared the "Qualifications and Prepared Testimony of Hassan M. Mirza" as part of the "Opening Report of the Division of Ratepayer Advocates Regarding The Cost Proxy Models And Other Issues in the Universal Service Proceeding"?

A.1. Yes, I am.

Q.2. What is the purpose of this reply testimony?

A.2. The purpose of this reply testimony is to present Chapter 2 of the "Reply Report of The Division of Ratepayer Advocates Regarding the Cost Proxy Models and Other Universal Service Issues." This reply testimony presents DRA's response to certain issues raised by other parties in this proceeding and also provides DRA's incremental impact to the CPM relating to the four changes that DRA recommended in the opening report

Q.3. Does this conclude your reply testimony?

A.3. Yes, at this time.

REPLY TESTIMONY

OF

ZENAIDA CONWAY

Q.1 Are you the same Zenaida Conway who prepared the "Qualifications and Prepared Testimony of Zenaida Conway" as part of the "Opening Report of the Division of Ratepayer Advocates Regarding the Cost Proxy Models and Other Issues in the Universal Service Proceeding" that was mailed on April 17, 1996?

A.1 Yes, I am.

Q.2 What is the purpose of this reply testimony?

A.2 The purpose of this reply testimony is to present Chapter 4 of DRA's "Reply Report of the Division of Ratepayer Advocates Regarding the Cost Proxy Models and Other Issues in the Universal Service Proceeding." DRA addresses in Chapter 4 certain issues raised by parties in their response to Q.10 of the February 21, 1996, ALJ Ruling. Specifically, DRA responds to the rate rebalancing proposal of the LECs and to AT&T's proposal to use Yellow Page revenues as an offset to the universal service subsidy.

Q.3 Does that conclude your testimony?

A.3 Yes, at this time.