0000010519

EXHIBIT
S-10
Admitted

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION	)	
OF US WEST COMMUNICATIONS, INC. A	)	
COLORADO CORPORATION, FOR A	)	
HEARING TO DETERMINE THE EARNINGS	)	DOCKET NO. T-01051B-99-0105
OF THE COMPANY FOR RATEMAKING	)	
PURPOSES, TO FIX A JUST AND	)	
REASONABLE RATE OF RETURN THEREON	)	
AND TO APPROVE RATE SCHEDULES	)	

DIRECT TESTIMONY AND SCHEDULES

ON MODERNIZATION, DEPRECIATION, AND RCNLD ISSUES

OF

WILLIAM DUNKEL

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

AUGUST, 2000

NOTICE: INFORMATION CLAIMED TO BE PROPRIETARY BY USWC HAS BEEN DELETED FROM THIS TESTIMONY. THROUGHOUT THIS TESTIMONY, PROPRIETARY INFORMATION IS DESIGNATED AS FOLLOWS: **PROPRIETARY**

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EXPLANATION REGUARDING CONFIDENTIAL EXHIBITS NOT ENCLOSED HERE

HAND DELIVERED

December 6, 2000

TRANSMITTAL OF CONFIDENTIAL EXHIBITS

Ms. Jane L. Rodda
Acting Chief Administrative Law Judge
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007

Re: Qwest / Rates T-01051B-99-0105, etc.

Dear Ms. Rodda:

The following exhibits are enclosed for your safekeeping:

AT&T - 1, 2, 4, 5, 6, and 8;
Cox - 2 and 3;
Qwest - 47;
RUCO - 1, 2, 3, 6, 7, 10, 12 and 20;
Staff - 21 and 22;
WCom - 1, 2, and 3.

These exhibits are subject to the confidentiality agreement and have been omitted from the filing with Docket Control.

If you have any questions, or if we can be of any further assistance, please let us know.

Very truly yours,

Marta T. Hetzer
Administrator/Owner

Enclosures

Copy to: ACC Legal Division
AT&T
Cox
Qwest
RUCO
WorldCom

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WILLIAM DUNKEL
DOCKET NO. T-01051B-99-0105

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I. STATEMENT OF QUALIFICATIONS AND INTRODUCTION

Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS.

A. My name is William Dunkel. My business address is 8625 Farmington Cemetery Road, Pleasant Plains, Illinois 62677.

Q. WHAT IS YOUR PRESENT OCCUPATION?

A. I am a consultant providing services in telephone rate proceedings. I am the principal of William Dunkel and Associates, which was established in 1980. Since that time, I have regularly provided consulting services in telephone regulatory proceedings throughout the country. I have participated in over 130 state regulatory telephone proceedings before over one-half of the state commission in the United States, as shown on Appendix A attached hereto. I have participated in telephone regulatory proceedings for over 20 years.

I currently provide, or in the past have provided, services in telecommunications proceedings to the following clients:

The Public Utility Commission or the Staffs in the States of:

Arkansas	Missouri
Arizona	New Mexico
Delaware	U.S. Virgin Islands
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	Kansas
Mississippi	

The Office of the Public Advocate, or its equivalent, in the States of:

Colorado	Missouri
District of Columbia	New Jersey
Georgia	New Mexico
Hawaii	Ohio
Illinois	Oklahoma
Indiana	Pennsylvania
Iowa	Utah
Maine	Washington
Florida	

The Department of Administration in the States of:

Illinois	South Dakota
Minnesota	Wisconsin

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of the Staff of the Arizona Corporation Commission (ACC).

Q. HAVE YOU PREVIOUSLY PARTICIPATED IN ANY PROCEEDINGS IN ARIZONA?

A. Yes. I have participated in three previous matters in Arizona. I recently filed Rebuttal testimony in Docket No. T-01051B-97-0689 on behalf of the ACC Staff regarding depreciation. In addition, I conducted a Cost of Service Study on behalf of the Staff of the Arizona Corporation Commission in an undocketed matter preparing a cost study pertaining to USWC.[1] I also a rate design witness in general rate case, Docket No. E-1051-93-183, involving USWC on behalf of the ACC Staff.

In this testimony I address depreciation issues. In addition, in the modernization section, I address the retirements that were incorporated in the depreciation projection lives adopted by the ACC. In the reconstruction cost new less depreciation (RCNLD) section, I address issues including the calculation of the remaining life from the depreciation studies.

[1] At the time this case was initiated, the Company's name was U S West Communications, Inc. (USWC). However, since that time, a merger between USWC and Qwest has occurred, and the new Company name is Qwest. However, throughout this testimony, the Company will be referred to as USWC.

Q. CAN YOU PLEASE HIGHLIGHT SOME OF YOUR EXPERIENCE IN DEPRECIATION FOR REGULATED UTILITIES?

A. Yes. I commenced working on depreciation pertaining to regulated utilities over 20 years ago when I was on the Staff of the Illinois Commerce Commission. Over the years, I have participated in depreciation studies and testified on depreciation pertaining to regulated utilities in many proceedings.

I have established a reputation as being a reasonable depreciation analyst. In a Public Service of Oklahoma (PSO) proceeding before the Oklahoma Corporation Commission, Docket No. PUD 96-214, five different depreciation experts presented different depreciation recommendations for PSO. They were Mr. Jacob Pous on behalf of the Oklahoma Corporation Commission Staff, Mr. Douglas L. Burton on behalf of Transok, Inc., Mr. James T. Selecky on behalf of the Oklahoma Industrial Energy Consumers, Mr. John S. Ferguson on behalf of PSO, and myself on behalf of the Oklahoma Attorney General. For all accounts, the settlement in the case adopted the depreciation rates and parameters which I had determined, except for two general plant accounts where the depreciation rates were adjusted to meet certain overall limitations that were agreed to in the settlement.

I have taken advanced depreciation programs entitled "Forecasting Life" and "Forecasting Salvage and Cost of Retiring" offered by Depreciation Programs, Inc.

Q. ARE YOU A MEMBER OF ANY DEPRECIATION PROFESSIONAL ORGANIZATION?

A. Yes. I am a member of the Society of Depreciation Professionals.

Q. DO YOU HAVE EXTENSIVE EXPERIENCE IN TELECOMMUNICATIONS RATE DESIGN AND COST OF SERVICE?

A. Yes. For two decades, I have providing services in regulatory telecommunications proceedings across the nation. Specifically, in the USWC states, I have provided rate design testimony pertaining to USWC (or its predecessors "Mountain Bell" and "Northwestern Bell") in the following jurisdictions: Arizona, Colorado, Iowa, Minnesota, New Mexico, South Dakota, Utah, and Washington, as is shown on Appendix A attached hereto.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I address three primary issues in this testimony. They are:

1. In the April 25, 2000 Open Meeting in the depreciation proceeding, the Commissioners requested a method to assure that the rapid retirements and modernization that were assumed in the approved depreciation rates actually occurred in Arizona. I present Staff's proposal to monitor and incent USWC to actually make the modernization that are incorporated and assumed in the depreciation parameters the Commission has approved.

2. I quantify and present the impact of the Commission approved depreciation parameters on the depreciation expense to be utilized in this proceeding.

In addition, the calculation of the "percent condition" used in the RCNLD calculation.

II. ARIZONA MODERNIZATION INCENTIVE

Q. WERE THE HIGHER DEPRECIATION EXPENSES APPROVED BY THE COMMISSION BASED UPON AN EXPECTATION OF GREATLY ACCELERATED RETIREMENT AND MODERNIZATION BY USWC IN ARIZONA?

A. Yes. The Commissioners' statements quoted above correctly indicate that the depreciation parameters are based on the assumption that USWC would be modernizing much more rapidly in the future. In recent years, USWC has been retiring 2% to 4% of its Arizona investment per year.[2] The new depreciation lives approved by the Commission assume USWC will be retiring over 13% of its Arizona investment per year. For example, the projection lives the Commission approved assume USWC will retire 13.8% of its Arizona investment in the year 2000, as shown in Column B on Schedule WDA-1.

The projection lives the Commission adopted for most accounts were much shorter than the existing lives in Arizona. The projection lives and retirements are inversely related. That is, in order to achieve a shorter average life, the annual retirements must be higher than the retirement level needed to achieve a longer average life. The customers' prices set in this proceeding will be set much higher than they otherwise would be, based upon the expectation that USWC will be accelerating its retirements and modernization in Arizona. Therefore, it is very appropriate for the Commission to require that these expected future retirements and the associated modernization actually occur in Arizona.

Q. IN PRIOR TESTIMONY AND IN COLUMN B OF SCHEDULE WDA-1, YOU STATED THAT THE PROJECTION LIVES THE COMMISSION APPROVED CONTAINED SPECIFIC FUTURE RETIREMENTS. CAN YOU PLEASE DEMONSTRATE THAT?

A. Yes. Schedule WDA-2 is a copy of one of the calculations that was performed as part of the depreciation proceeding. As can be seen from the top of this page, the Commission approved

[2] For example, in 1998, in Arizona USWC retired 1.8% of its investment. In 1999, USWC retired 3% of its investment in Arizona. (Calculated from USWC response to Request WDA 21-001, Attachments A and B)

projection life of seven years for the Office Equipment Account, and a Commission approved Iowa curve shape of L0.5 have been entered. Based upon these inputs, the program calculates a specific expected future retirement pattern by year, as shown in Column C. The specific amounts shown in this column are "per $100,000" of initially installed investment. This figure can be applied to the actual investment for each age to arrive at the expected retirements each year. The Commission approved parameters assume USWC will be making a specific level of retirements each year in the future.

Q. HAS THE COMMISSION ACTION GIVEN USWC THE OPPORTUNITY TO RAPIDLY ACCELERATE RETIREMENTS AND MODERNIZATION IN ARIZONA?

A. Yes. The Commission has given USWC the opportunity to rapidly accelerate retirements and modernization in Arizona. The ACC will be providing USWC a huge amount of additional customer funds based upon the expectation that USWC will make the expected accelerated retirements and modernization. At this point, there is no guarantee that USWC management will take advantage of this opportunity to modernize at the expected accelerated rate. If USWC management does take advantage of this opportunity and use the customer funds for their intended purpose, that is fine. However, the USWC management instead could divert the funds to other purposes. The Commission has done its part to accelerate modernization. The customers will be doing their part by paying higher rates that are based upon that assumed accelerated modernization. After that, it will be up to USWC management to decide if they will take advantage of this opportunity to actually make the expected modernization, or if they attempt to divert the funds to other purposes.

1 Q. HAS USWC PROVIDED ANY ASSURANCE THAT THEY ARE ACTUALLY PLANNING
2 TO MAKE THE FUTURE RETIREMENTS THAT ARE ASSUMED IN THE ACC
3 APPROVED DEPRECIATION LIVES?
4 A. No. Staff has not been able to obtain any assurance from USWC that USWC is planning to
5 actually make the level of retirements incorporated in the Commission approved depreciation
6 lives. For example, attached as Schedule WDA-3 is a Staff request asking for USWC's plans to
7 actually make the retirements assumed in the approved depreciation lives. As can be seen from
8 that response, USWC did not provide any assurance that they are actually planning to make those
9 retirements.
10
11 Q. WHAT DOES USWC'S BUDGET SHOW THEIR RETIREMENT PLANS ARE FOR THE
12 YEAR 2000?
A. As previously discussed, the Commission approved depreciation lives assumed USWC would be
14 retiring 13.8% of its Arizona investment in the year 2000. However, USWC's most recent
15 budget for the year 2000 shows USWC plans to retire less than ** ** of its Arizona
16 investment in the year 2000, as shown in Column C of Schedule WDA-1. The retirements that
17 USWC has actually planned for the year 2000 are only ** ** of the retirements for that
18 year that are assumed in the ACC approved depreciation lives.
19
20 Q. WHAT WOULD THE IMPACT BE IF THE PRICES CHARGED CUSTOMERS ASSUME
21 MORE RAPID RETIREMENTS AND MODERNIZATION IN ARIZONA, BUT USWC DOES
22 NOT ACTUALLY MAKE THOSE RETIREMENTS AND ASSOCIATED
23 MODERNIZATION?

1 A. This would be the worst of both worlds. If this occurs, the customers will not be receiving the
2 modernization for which they are paying. In addition, collecting the money from the Arizona
3 customers, but not making the expected Arizona modernization, harms the Arizona economy. If
4 this money would have been left in the customers' hands, that would have been spendable
5 income in Arizona. Customers could have spent on goods and services in Arizona, thereby
6 promoting Arizona employment and business activity. However, when these additional funds
7 are collected from the customers in the USWC rates, the customers can no longer spend those
8 funds in Arizona for other purposes. If the money is collected but all the expected modernization
9 is not made, the portion of that money that is not utilized in Arizona will be removed from the
10 Arizona economy. This harms the economy and employment. It is important to the Arizona
11 economy and employment that the funds collected from the Arizona customers for the purpose of
12 accelerating Arizona retirements and modernization be used for the intended purpose. If a
portion of these Arizona funds are diverted to other jurisdictions, that will harm the Arizona
14 economy. The diversion of Arizona funds from their intended purpose, or even to other
15 jurisdictions, could result in Arizona being a "cash cow" which provides funds for Qwest's
16 operations in other states, or even in other countries.
17
18 Q. WHAT DO YOU RECOMMEND?
19 A. I propose the Commission monitor USWC's retirements to be sure that the expectations built into
20 the depreciation rates, and therefore into the prices paid by customers, are being met. I propose
21 that each year the actual retirements that USWC makes in Arizona be compared to the expected
22 retirements that were incorporated into the approved depreciation lives. If USWC is making the
23 retirements that were expected when the depreciation rates were set, then no further action is

needed. However, if USWC fails to meet the expected commitments, customers should be given a credit. The amount of that credit will depend on how close USWC is to the expected modernization level. This proposal provides a very powerful incentive to USWC management to actually make the expected modernization in Arizona. With this requirement in place, USWC management will know that if it attempts to divert the relevant revenues they are collecting from the Arizona customers to other purposes, then they will no longer be allowed to collect the portion of those revenues they are attempting to divert.

Q. IS THERE A SIMPLE WAY TO MONITOR THE ACTUAL RETIREMENTS TO THE EXPECTED RETIREMENTS?

A. Yes. From the data in the depreciation proceeding we know what annual retirements are required in order to achieve projection lives adopted by the Commission. As previously discussed, shorter lives require higher annual retirement rates than do longer lives. After the end of a year, the Company records show the investments they retired that year. Therefore, the actual retirements can be compared to the expected retirements, and an appropriate credit calculated if the actual retirements do not meet the expectations that were incorporated in the depreciation rates.

The retirements cause two things to happen--(1) equipment to retire, and (2) new equipment to be installed. Therefore, there are theoretically two ways to measure USWC's rate of retirements. We could either (1) monitor the retirements, or (2) monitor their replacement of new equipment. Either of these two items would measure the same thing, which is the replacement of existing equipment with new equipment. However, of these two possibilities, we only have actual expectations as to what USWC will retire. Therefore, the retirements must be monitored, but by

doing so the modernization rate is also being monitored, much the same as would occur if the new investments were monitored.

Retirements are used as the measure of USWC's compliance because expected future retirement levels are specifically included in the depreciation calculations. For example, Schedule WDA-2, Column C shows the specific retirement pattern that is established by the Commission prescribed parameters per $100,000 of initial investment. The depreciation calculations do not include any specific assumption as to what USWC will invest to replace that equipment when it retires. By holding USWC accountable to the retirement that is incorporated in the depreciation parameters, that will require USWC to retire the existing older plant. That forces USWC to make the modernization by replacing it with the newer, more efficient equipment.

It is actually the retirement plans of the existing equipment that is used to calculate the depreciation remaining lives. As a result, there is a schedule for the expected future retirements that were specifically used in calculating the depreciation rates.

In fact, monitoring the dollar amount of the retirements is probably preferable than monitoring the dollar amount of the new investments (even if there was a standard to use for that, which there is not), because rewarding the Company for spending large amounts of money on new investments would encourage "gold plating."

Q. WHAT IS SCHEDULE WDA-4?

A. Schedule WDA-4 is a form that should be filled out and filed by USWC in May showing data for the prior year. If USWC had met the retirement expectations, then no credit would be calculated. However, if USWC had not met the retirement expectations, there would be a credit to

customers. The amount of the credit would depend on how close USWC's actual performance was to the expectations incorporated in the Commission approved depreciation lives.

Q. WHAT IF USWC RETIRES MORE THAN IS EXPECTED IN A YEAR?

A. In that event, the additional retirements will be carried over and would reduce the customer credit in the following year.

Q. HAVE THE COMMISSIONERS ALSO STATED THAT THEY WANT ACTUAL MODERINZATION, NOT JUST "SOMETHING ON PAPER"?

A. Yes. In the Open Meeting, the Commissioners stated that they wanted to assure that the modernization was actually "put into the ground."

> Commissioner Mundell:
> ...If you get this accelerated depreciation, get this additional money so we're not just doing something on paper, an accounting procedure here, but the money actually goes into infrastructure and improving technology?[3]

> Commissioner Irvin:
> Commissioner Mundell, I will look forward to working with you and Commissioner Kunasek seeing updated equipment is put into the ground.[4]

Staff's proposal addresses this Commissioner concern by requiring that the retirements be physical retirements, not just accounting entries. This requirement is shown in Note 4 of Schedule WDA-4.

Q. CAN YOU ILLUSTRATE HOW THE FORM ON SCHEDULE WDA-4 WOULD BE FILLED OUT?

[3] Tr. 46-47, April 25, 2000 Open Meeting.

1 A. Yes. Schedule WDA-5 contains hypothetical numbers as an example of how this form would
2 work. Only four numbers need to be input into this form from the Company's books and records
3 after the close of the year. These include the plant in service at the beginning of the year. This
4 goes on line 1a. The amount of retirements in the year goes on line 1b. The intrastate
5 depreciation expense accruals in the year goes on line 3f. The working loops in the year goes on
6 line 3i. The other calculations work off of these four numbers, as can be seen from this form.
7 As a hypothetical, I am inputting a $5,000,000,000 plant in service at the beginning of the year,
8 $500,000,000 retirements in the year, $600,000,000 intrastate depreciation expense, and
9 2,500,000 lines in service in the year. The resulting credit would be 60¢ per line per month, as
10 shown on Schedule WDA-5.
11
12 Q. DOES THIS MONITORING PENALIZE USWC?
A. No. It just requires accountability. As long as USWC uses the funds for the purpose for which
14 they were intended, there will be no credit. A credit will apply only if USWC attempts to divert
15 a portion of these funds from their intended purpose. No prudent business person or homeowner
16 would have a contract which obligated them to make large payments to a contractor based upon
17 assumptions that the contractor would perform certain services, but not actually require the
18 contractor to do so. A prudent business person or homeowner that agreed to make payments
19 would undoubtedly require accountability, so that they would not be obligated to continue to
20 make those payments if the contractor did not provide the expected services. Likewise, the
21 USWC customers are entitled to receive the rate of modernization for which they will be paying.
22

[4] Tr. 52, April 25, 2000 Open Meeting.

Q. DOES YOUR PROPOSAL ALLOW TIME TO SEE WHAT USWC WILL DO BEFORE THE CREDIT APPLIES?

A. Yes. USWC has been booking the new depreciation rates since May, 2000. Under my proposal, the first review will not commence until May, 2001, with the potential credit (if any) first appearing on the customers' bills in June, 2001. It will be up to USWC whether or not they meet the expectations that are incorporated in the depreciation rates. Only if USWC chooses not to make the retirements that are expected in the ACC approved depreciation lives, would a credit apply.

It is also important to note that the amount of the credit depends upon how close USWC came to the expected goals. Therefore, even if USWC does not meet the goal in one year, they will still have an incentive to increase their retirements and modernization. Any increase in retirements reduces or eliminates the credit next year that is based on that period.

Q. WHAT DO YOU RECOMMEND ON THIS ISSUE?

A. I recommend the Commission require USWC to file the filled out form contained on Schedule WDA-4. If any credit is appropriate because USWC has failed to meet the retirement expectations that are built into the customers' rates, the appropriate credit as calculated on that form should appear on the customers' bills.

III. DEPRECIATION

Q. WHAT IS THE PRIMARY PROBLEM WITH THE DEPRECIATION EXPENSE CALCULATION OF USWC?

A. The Commission approved depreciation parameters (future net salvage, projection life, and curve shapes) to be used in the rate case. USWC has applied those Commission-approved parameters to 1999 investments, but to 1997 reserves.

Q. IN HIS DIRECT TESTIMONY MR. WU PRESENTS THE DEPRECIATION EXPENSE CHANGE OF $79.2 MILLION, WHICH THE COMMISSION DISCUSSED IN THE OPEN MEETING[5] IN WHICH THEY APPROVED THE DEPRECIATION PARAMETERS, BUT THEN HE ARGUES THAT WITH THE TEST YEAR UPDATE, AN ADJUSTMENT OF $99.7 MILLION CAN BE CALCULATED. IN ADDITION, MR. REDDING ON HIS SUPPLEMENTAL EXHIBIT GAR-S7C CLAIMS A $107,968,000 DEPRECIATION EXPENSE CHANGE AS THE IMPACT OF THE DEPRECIATION CHANGE. PLEASE COMMENT.

A. These USWC witnesses were calculating the impact of the change in parameters approved by the Commission by applying those parameters to 12/31/99 investments, and to 1/1/97 reserve levels. The use of the "book" values from inconsistent time periods results in over-stating the depreciation expense calculation.

[5] Open Meeting April 25, 2000.

1 Q. MR. WU ARGUES THAT "THE $79.2 MILLION AMOUNT WAS BASED ON
2 INVESTMENT LEVELS AS OF 1/1/97" AND "SINCE THAT TIME U S WEST HAS MADE
3 SUBSTANTIAL INVESTMENT IN ARIZONA". PLEASE RESPOND.
4 A. In his "updated" 1999 calculation, Mr. Wu has used the 12/31/99 investment, but also used the
5 1/1/97 reserve percent. What Mr. Wu proposes is a selective recalculation of the $79.2 million
6 figure in which he selectively changes some of the "per book" figures from the 1/1/97 level to the
7 1999 level, while leaving other of the "per book" figures back at the 1/1/97 level. Mr. Wu's
8 revised calculation would recognize the increase in investment which has occurred in the past
9 three years, but would ignore the increase in the depreciation reserve percent which has also
10 occurred in the past three years.
11
12 The $79.2 million figure was calculated using the investment book value on depreciation reserve
13 book values as of 1/1/97. The investments have increased since that time. It is also true that the
14 depreciation reserve, and the reserve as a percent of investment, has substantially increased since
15 1/1/97. Mr. Wu proposes to update the investment amount, but does not propose to update the
16 reserve percent used in the $79.2 million calculation to the 1999 level. Instead he proposes to
17 leave the reserve percent in this calculation back at the 1/1/97 level. In the last three years,
18 hundreds of millions of additional dollars have been accrued into the depreciation reserves.
19 These depreciation accruals are recovered in customer rates. This would be like a loan company
20 failing to consider the impact of the loan payments a customer had made for the past three years.
21
22 Q. CAN YOU DEMONSTRATE THAT MR. WU IS USING THE 1/1/97 RESERVE PERCENT
23 IN HIS SUPPOSEDLY "UPDATED" 1999 CALCULATION?

A. Yes. On Wu Exhibit KDW-1,page 1, which show the 1/1/97 calculation, Mr. Wu uses the percent reserve as of 1/1/97 of 64.0% for Radio Systems. Using that and other inputs, he calculated a rate of 5.8%.[6] That 5.8% figure is calculated specifically using the 1/1/97 reserve percent, but the 5.8% figure is what Mr. Wu also uses in his supposed 12/31/99 calculation, as can be seen in column D of Mr. Wu Exhibit KDW-2.

In fact the percent reserve for this account had grown from 64% as of 1/1/97 to 82.5%, as of 12/31/99, as shown on Schedule WDA-6, page 1, Column I. Mr. Wu ignores the growth by using the older 1/1/97 reserve percent in the "1999" calculation.

Q. DID MR. WU UPDATE THE INVESTMENTS TO THE 12/31/99 LEVEL IN ALL PARTS OF THE CALCULATION OF THE "UPDATED" DEPRECIATION EXPENSE CALCULATION?

A. No. In his "updated" calculation, Mr. Wu replaced the 1/1/97 investment with the 12/31/99 investment in one part of the calculation, but left the investment in another part of the calculation at the 1/1/97 level.

Schedule WDA-7 shows the calculation of the 6.6 years remaining life as of 1/1/97 that was used for the Radio Systems account in the $79.2 million calculation. As this Exhibit shows, this 6.6 year average remaining life was calculated by applying the ACC approved Projection Life to the 1/1/97 investment figures.[7] The 6.6 year remaining life is based on 1/1/97 investments. Mr. Wu

[6](100% - 64.0% - (-2%))/6.6 = 5.8%

[7]The ACC order specifies the parameters (net salvage and projection life) to be used. For example, for the Digital Circuit Account, the Commission Order approved a 10 year Projection Life, but did not approve a specific depreciation rate for that Account. (Page 11, Decision 62507) Depreciation rates are calculated by applying the Commission approved parameters to the book investment and reserve figures. Even with the same parameters, the depreciation rate and resulting accruals calculated can vary depending upon the date of the "per book" figures to which the Commission prescribed parameters are applied.

used the 6.6 year remaining life in calculating the 5.8% depreciation rate.[8] Therefore, the 5.8% rate is specifically based on 1/1/97 investments.

However in the "updated" 1999 calculation Mr. Wu uses the same 5.8% rate, as can be seen on Exhibit KDW-2, Column D. That figure is specifically calculated on the 1/1/97 investment level, but Mr. Wu used it in the "updated" 1999 calculation.

Q. DOES USWC HAVE THE CALCULATION WHICH APPLIED THE ACC APPROVED PROJECTION LIVES TO THE 12/31/99 INVESTMENTS?

A. Yes. Attached as Schedule WDA-8 is a copy of the USWC provided "generation arrangement" that shows the average remaining life of 5.9 years which USWC calculated by applying the ACC approved projection life to the 12/31/99 investment. USWC has recalculated the remaining life by applying the ACC approved parameters to the 12/31/99 investments (but this is not what Mr. Wu used in his "updated " 1999 calculation). In her testimony, USWC witness Nancy Hughes states she used the 12/31/99 "generation arrangements."[9] These are the documents that calculate the average remaining life by applying the ACC approved projection lives and curve shapes to the 12/31/99 investments, as shown on Schedule WDA-8.

Q. WERE THE RATES APPROVED BY THE COMISSION IN THE DEPRECIATION CASE BASED UPON BOTH 1997 INVESTMENT AND 1997 RESERVE LEVELS?

[8] (100% - 64.0% - (-2%))/6.6 = 5.8%.
[9] Page 4, Supplemental Testimony of Nancy Heller Hughes (Hughes Supplemental Testimony).

A. Yes. The Commission Order stated that the depreciation rates calculated using the Commission approved parameters shall be used in the rate case. The Commission Orders do not say "In the rate case, these Commission approved parameters shall be applied to 1999 investments, but to 1997 reserves."

Q. USWC FILED DEPRECIATION RATES IN MAY, 2000, WHICH THEY ARE NOW BOOKING. HOW WERE THOSE CALCULATED?

A. For most accounts, USWC applied the ACC approved projection lives, curves, and net salvage to the 1/1/97 book investment and 1/1/97 reserve amounts. For two accounts, the USWC depreciation rates did not use the Commission approved parameters.[10]

This testimony is not objecting to USWC "booking" those rates for now. I am addressing the depreciation expense to be calculated based upon a 1999 test year and the Commission approved parameters. I recommend that when the customer rates that result from this proceeding go into effect, USWC should at that time commence booking the updated test year depreciation rates. These are the rates that are calculated by applying the ACC approved parameters to the test year 12/31/99 investments and reserves, as shown on Schedule WDA-6.

Q. IS USING A DEPRECIATION RATE IN THE YEAR 2000 WHICH IS CALCULATED USING AN "END OF 1996/START OF 1997" RESERVE LEVEL CONTRARY TO ACCEPTED DEPRECIATION PRACTICES?

[10] Dr. Le's April, 1999 Supplemental Testimony, Schedule 12 recommended a projection life of 8.5 years for the Stand Alone and 8.5 years for PBX and Key Intrasystems accounts, Account 2123.2. The Commission Order directed those Staff projection lives be adopted. However, USWC's filing improperly shows a projection life of 8.3 years for this Account.

1 A. Yes. All major telephone companies are required to update their depreciation rates at least every
2 three years (Triennial Represcription). In the interstate jurisdiction, companies are allowed to
3 update the depreciation reserve percent and investment amounts used in their depreciation rates
4 annually. Standard depreciation requirements prevent companies from using depreciation rates
5 that include reserve figures that are more than three years old. The use of the more than three
6 years old depreciation reserve figures that USWC is currently advocating in Arizona is not
7 acceptable under standard depreciation practices, because that data is too far removed from
8 current data.
9
10 Q. WHAT DO YOU RECOMMEND?
11 A. Staff agrees that Commission approved parameters should be applied to 12/31/99 book figures
12 instead of 1/1/97 book figures for purposes of the rate case. However, I do not agree that only
some of the "book" figures should be changed to the 12/31/99 levels while other "book" figures
14 used in the calculation should remain at the 12/31/97 levels. The only consistent way to update
15 is to update all "per book "investment and reserve figures used in this calculation is to use the
16 12/31/99 book figures. To use the 12/31/99 investment in one part of the calculation , but use the
17 1/1/97 investment and 1/1/97 reserves in other parts of the calculation for the same account is
18 improper.
19
20 The parameters as ordered by the ACC would be applied to these 12/31/99 "per book"
21 investment and reserve amounts.
22
23 Q. HAVE YOU PERFORMED THIS UPDATED CALCULATION?

1 A. Yes. The result is an increase in the intrastate annual depreciation expense of $68,258,000 are
2 shown on Schedule WDA-6, page 1. The 12/31/99 investment and reserve figures used in
3 Schedule WDA-6, are the actual 12/31/99 "per book" figures.[11] Adjusted for the sale of
4 exchanges, the figure for the retained exchanges is $62,080,000, as shown on page 2 of Schedule
5 WDA-6.
6
7 Q. IS THERE ANOTHER DEPRECIATION EXPENSE ADJUSTMENT THAT IS
8 APPROPRIATE?
9 A. Yes. The adjustment just discussed shows the impact of the change in the depreciation
10 parameters. In addition, when using an end of year rate base, you must adjust for end of year
11 investment levels.
12
USWC books the investment by applying a monthly depreciation rate to the investments each
14 month. The end of year 1999 investment is higher than the average was throughout 1999. Had
15 the higher investment levels that existed at the end of the year been in effect throughout 1999,
16 USWC would have booked more depreciation expense than they actually booked in 1999.
17 Adjusting the depreciation expense to the end of year level results in $10,054,000 increase in the
18 depreciation expense, as shown on Schedule WDA-9. This figure has already been adjusted for
19 the sale of exchanges, and would be in addition to the $62.0 million impact of the depreciation

[11] If anything, these reserves are conservative, since USWC had stopped flowing depreciation accruals into some accounts in 1999. Specifically, in 1999, USWC had the depreciation accruals for the General Purpose Computers Account turned "off", although they continued to collect revenues from customers to cover this expense. USWC was not flowing those revenues into the depreciation reserve for that Account. In the latter part of 1999, this Account was not "fully depreciated", and therefore, the funds that were being collected from the customers for that purpose should have been flowed into that Account, but they were not. They had an undepreciated balance by at least May, 1999, and therefore it should have been turned "on" by at least May, 1999. (USWC response to Request UTI 18-023) Having this Account turned "off" means the "booked" depreciation reserve is smaller than it otherwise would have been. I have not adjusted for this, and therefore the reserve amounts I utilize are conservative.

rate change. The $72,134,000 sum of these two adjustments ($62,080,000 + $10,054,000) is the depreciation expense change.

Q. IS THE DEPRECIATION EXPENSE CHANGE AS A RESULT OF THE TEST YEAR UPDATE ORDERED BY THE COMMISSION, SIMILAR TO THE IMPACT THE COMMISSION EXPECTED AT THE TIME IT APPROVED THE DEPRECIATION PARAMETERS IN THE DEPRECIATION CASE?

A. Yes. In its April 25, 2000 Open Meeting, in which the Commission approved the depreciation parameters, the Commissioners indicated that they expected these parameters to have an annual impact of $79.2 million per year.[12] At that time, the Commissioners recognized that if exchanges were sold, a portion of this would go with the sold exchanges.[13] The figure of $73.1 million is the portion of the $79.2 million figure that would remain after adjusting for the sale of the exchanges.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the depreciation rates calculated using the ACC approved parameters shown on Schedule WDA-6, page 1, Column K, be utilized in this proceeding. The depreciation rates are calculated by applying the ACC approved parameters to the end of test year investments and reserves as of 12/31/99. USWC "partially" updated depreciation expense calculation should be rejected. That "partially" updated calculation utilizes reserve levels from the end of 1996/start of 1997. Those reserve levels are outdated and have no relevance to the 1999 test year. To continue to use those outdated reserve levels would ignore the hundreds of millions of dollars of

[12] Tr. 16-17.
[13] Tr. 52.

depreciation accruals (supported in customers' rates), and have flowed into those reserve accounts since 1996. I also recommend that USWC commence booking the updated test year depreciation rates at the same time the customer rates that result from this proceeding go into effect. In addition, an "end of period" adjustment, such as that shown on Schedule WDA-9 is also appropriate.

IV. THE "PERCENT CONDITION" IN THE "RECONSTRUCTION COST NEW LESS DEPRECIATION" CALCULATION

Q. DID USWC CORRECTLY CALCULATE THE "PERCENT CONDITION" IN THEIR "RECONSTRUCTION COST NEW LESS DEPRECIATION" (RCNLD) CALCULATION?[14]

A. No. The USWC calculation of the "percent condition" contains at least three errors.

1. In this calculation, USWC calculated the remaining life using the vintage group (VG) procedure. However, the ACC has ordered the equal life group (ELG) procedure be used.

2. Ms. Hughes improperly took one-half year off of all of the ages.

3. Ms. Hughes started with the correct "percent condition" formulas, but she then improperly modified those formulas to remove "age" from the calculation.

Q. BEFORE DISCUSSING THESE THREE PROBLEMS, IS THERE ANOTHER ISSUE THAT NEEDS TO BE CLARIFIED?

[14] The Supplemental Testimony of Nancy Heller-Hughes and associated exhibits filed June 9, 2000 which addressed the updated test year of 1999.

A. Yes. Many of Ms. Hughes' Exhibits also show the 6/30/98 date instead of the 12/31/99 date in the column headings. On page 12 of Exhibit NHH-1, Supplemental Exhibit of Ms. Hughes, shows the correct date of 12/31/99, in the column headings. However, on all of the following pages of that Exhibit, Ms. Hughes shows the incorrect date. The numbers Ms. Hughes shows in those columns are 12/31/99 numbers, but the column headings are incorrect.

Q. THE FIRST ERROR YOU PREVIOUSLY LISTED IS THAT MS. HUGHES CHANGED THE REMAINING LIFE CALCULATION FROM THE ELG PROCEDURE TO THE VG PROCEDURE. PLEASE EXPLAIN.

A. One of the issues addressed in the depreciation proceeding was whether the remaining life should be calculated using the VG or ELG procedures. On page 1 of the Procedural Order dated January 7, 2000 in Docket No. T-01051B-97-0689, the Commission required that the ELG procedure be used:

> IT IS FURTHER ORDERED that each party shall utilize the Equal Life Group approach without the use of truncation.

Q. DOES THE ELG PROCEDURE PRODUCE A DIFFERENT AVERAGE REMAINING LIFE THAN THE VG PROCEDURE, EVEN WHEN ALL OTHER INPUTS ARE THE SAME?

A. Yes. For example, Schedule WDA-10 is a table from the computer program that USWC uses for depreciation calculations. The last two columns show the average remaining life under the ELG procedure, and separately under the VG procedure. As can be seen by comparing these columns, the ELG procedure generally produces a shorter average remaining life than does the VG procedure. even with the same inputs.

Q. DID MS. HUGHES USE THE ELG REMAINING LIFE?

A. No. In her testimony, Ms. Hughes stated that she had "USWC generation arrangement" as of 12/31/99, and that this was the data that was "used to support the depreciation rates prescribed by the ACC.[15] Those USWC "generation arrangements" calculated the remaining life using the ELG procedure. However, Ms. Hughes changed the remaining lives shown on the USWC generation arrangements by replacing them with the remaining lives calculated using the VG procedure. Replacing the ELG remaining life with the VG remaining life is contrary to the Commission Order. It is also using a remaining life procedure that is inconsistent with the remaining life used in the depreciation expense calculation.

Q. CAN YOU PLEASE DEMONSTRATE THAT MS. HUGHES REPLACED THE ELG REMAINING LIFE WITH THE VG REMAINING LIFE?

A. Yes. Schedule WDA-11 contains pages from the USWC calculated "generation arrangement" for the Circuit Digital Equipment account.[16] The remaining life and other values on that generation arrangement were calculated using the Commission specified remaining life and Commission required ELG procedure. However, instead of using the "ELG" remaining life, Ms. Hughes replaced that with the VG remaining life. For example, for Digital Circuit Equipment, the ELG remaining life for the 1997 vintage is 5.56 years as shown in Column E of the USWC "generation arrangement", Schedule WDA-11. However, Ms. Hughes used the VG remaining life of 9.09 years for that vintage, as shown in Column H, page 35 of Exhibit NHH-1 of Ms. Hughes' Supplemental Testimony. The term "expectancy" that Ms. Hughes uses in Column H

[15] Page 4, Hughes Supplemental Testimony.
[16] This USWC response included the generation arrangement for virtually all of the depreciable accounts. This Schedule contains only several pages pertaining to the Digital Circuit account.

means the same as the average remaining life, as is stated in standard textbooks, as shown on Schedule WDA-12.

Q. WHAT IS THE SECOND IMPROPER CALCULATION IN THE USWC "PERCENT CONDITION" CALCULATION?

A. Ms. Hughes reduced all of the investments' age by one-half year, for no valid reason. The "generation arrangement" that USWC had provided to her showed the correct age, but she changed those ages. For example, as Schedule WDA-11, page 3, Column D shows, the USWC calculated generation arrangement shows that the investments installed in 1999 have an average age of 0.5 years as of 12/31/99 (1/1/2000). This is correct because the investments in 1999 were installed throughout the year. On the average, they would be six months old by the end of that year. However, instead of using the correct age, Ms. Hughes changed the 1999 vintages' age to be zero as of 12/31/99, as can be seen in Column F of page 35 of Ms. Hughes' Supplemental Exhibit NHH-1. This age is incorrect and inconsistent with the correct ages shown on USWC's own "generation arrangement." Ms. Hughes also improperly reduced the ages by 0.5 years in the other vintages and in the other accounts.

Q. WHAT IS THE THIRD ERROR YOU DISCUSSED ABOVE?

A. "Age" is one of the factors used in the correct calculation of the "percent condition." However, Ms. Hughes improperly modified the "percent condition" formula to exclude "age" from the calculation. The "percent condition" is the percent of the total life of the investment that remains. For example, if investment has only 20% of its total life left, then that investment would have a 20% "percent condition."

Without even discussing the "formulas", it is obvious that the percent condition figures that Ms. Hughes used do not accurately reflect the portion of the life remaining. For example, the 1980 vintage Digital Circuit Equipment investment has an age of 19 years, and a remaining life of 5.02 years, according to page 34 of Ms. Hughes Supplemental Exhibit NHH-1. From these two numbers, it is obvious that this equipment has already lived well past one-half of its total expected life. However, Ms. Hughes shows the "percent condition" for this investment as 50.20%. This is clearly an error since this investment has far less than half of its life remaining. The correct "percent condition" for this 1980 vintage investment in the Circuit Digital account is 18.82%, as shown in Column I, page 1 of Schedule WDA-13, which are my corrected calculations. Even without discussing any formulas, it is obvious that an investment which is already 19 years old, and has only 4.5 to 5 years of life remaining, does not have 50% of its life remaining, but has closer to 20% of its life remaining.

Q. WHAT IS WRONG WITH THE FORMULA MS. HUGHES USED IN THE ABOVE CALCULATION?

A. Ms. Hughes started out with the correct formulas, but she improperly modified those formulas to remove the "age" from the calculation. Ms. Hughes correctly identified the two formulas properly used to calculate the "percent condition". These formulas are:

1. $$\text{Percent condition} = \frac{(\text{Probable average service life - age})}{\text{Probable average service life}}$$ [17]

2. Probable average service life = Age + Life Expectancy[18]

[17] Supplemental Exhibit NHH-1, page 3, last paragraph.

[18] Supplemental Exhibit NHH-1, page 3, last line, continued onto page 4. As previously noted, the term "life expectancy" means the same as "average remaining life", as shown on page 2 of Schedule WDA-12.

We do not dispute Ms. Hughes' statement that the above are the correct formulas used to calculate the "percent condition". However, these are not the formulas Ms. Hughes actually utilized.

After identifying the correct formulas, she combined those formulas. The result of properly combining these two formulas is the following:

$$\text{Percent condition} = \frac{((\text{Age} + \text{Life expectancy}) - \text{Age})}{(\text{Age} + \text{Life expectancy})}$$

This reduces to:

$$\text{Percent condition} = \frac{\text{Life expectancy}}{(\text{Age} + \text{Life expectancy})}$$

It is important to note that "age" is still one of the factors used to calculate percent condition in the properly combined formulas. However, this correct formula is not what Ms. Hughes used. Instead, she modified this formula by removing the "age" from the calculation and created an improperly modified formula, which is:

$$\text{Percent condition} = \frac{\text{Life expectancy at age X}}{\text{Divided by life expectancy when new}}$$ [19]

This modified formula is not correct. One obvious difference between the correct formula and the formula used by Ms. Hughes is that the correct formula uses "age" in the calculation, whereas Ms. Hughes improper formula removes age from the calculation. There is no valid basis for the modification that Ms. Hughes made to the correct formulas. It is the use of this incorrect formula which produces the illogical result previously discussed.

[19] Supplemental Exhibit NHH-1, page 4.

Q. DOES THE INCORRECT FORMULA THAT MS. HUGHES UTILIZED EVER PRODUCE THE CORRECT FIGURE?

A. This formula produces the same answer as the correct formula only for brand new investments, where the age equals zero.[20] However, for all investments where age is not equal to zero, the formula Ms. Hughes utilized will not produce the correct "percent condition." As can be seen from Schedules WDA-11 and WDA-13 , all or virtually all investments have an age other than "zero." If Ms. Hughes, in rebuttal, says that her formula is correct for "new investments," or "assuming age equals zero", that is a clear indication that she is avoiding addressing the area where the USWC error exists.

Q. HAVE YOU CORRECTED THESE THREE ERRORS IN THE USWC CALCULATION OF THE PERCENT CONDITION?

A. Yes. Schedule WDA-13 shows the correction of RCNLD for the Circuit Digital account with the "percent condition" calculation corrected. For example, the 1980 vintage I previously discussed is already 19.5 years old, and has an average remaining life of 4.52 years. It has an 18.82%[21] condition, not the 50.2% condition that Ms. Hughes improperly calculated.

The "age" I used is the correct age. The age I used is also the same age shown in the USWC generation arrangement for this Account, as can be seen by comparing Schedule WDA-13 to

[20] When the age equals zero, age would have had a zero value in the correct calculation. Therefore, removing age does not change the answer when the age equals zero. However, removing age from the calculation will produce an error if age has a value of anything other than zero.

[21] $4.52 (S4.52 + 19.5) = 18.82%.

Schedule WDA-11. (For example, for the 1992 vintage the age I used and the "generation arrangement" age are both 7.5 years.)

The remaining life I used is the ELG remaining life. The remaining life figures I used are also the same remaining life figures that USWC used in its generation arrangement, as can be seen by comparing Column G of my Schedule WDA-13, to Column E of USWC's generation arrangement shown on Schedule WDA-11. (For example, for the 1992 vintage, the average remaining life figure I used was 5.24 years, which is the same average remaining life shown in USWC's generation arrangement.)

In my correct calculations shown on Schedules WDA-13 and 14, I have used the formulas which Ms. Hughes has acknowledged are the correct formulas. These correct formulas are used in Columns H and I of Schedule WDA-13. Applying these correct formulas result in the correct probable service life. The fact that the service lives I have used are appropriate can be verified by the fact that the service lives I used are the same as the service lives shown in the USWC generation arrangement, as can be seen by comparing Column H of Schedule WDA-13 to column F of USWC's generation arrangement shown on Schedule WDA-11. For example, for the 1992 vintage, the probable service life I used in Column H is 12.74 years, which is exactly the same service life figure which appears on USWC's generation arrangement.

The corrected percent condition for each account is shown on Schedule WDA-14.[22] The "reconstruction cost new less depreciation" with the correctly calculated percent condition is $2,548,485,457 as compared to the $3,487,682,001 figure Ms. Hughes calculated. When the

intrastate separations factor is applied to the difference between these two figures, and the 50% "reconstruction cost new less depreciation" weighting that is used in "fair value" is applied, the correction to the "fair value" rate base, is a reduction of $339,520,000, as is shown on Schedule WDA-15.

Q. ARE THERE ANY EVENTS IN THE DEPRECIATION PROCEEDING THAT HAVE RESULTED IN THE PERCENT CONDITION BEING LOWER THAN IT WOULD NORMALLY BE?

A. Yes. In the depreciation proceedings, the Commission greatly shortened the projection lives. For example, for the largest account, Buried Cable-Metallic, the Commission approved a 12 year projection life, which compares to the 24 year projection life that had previously been in effect. In no other USWC state, has the state commission approved a projection life lower than 20 years for this account. It is expected that much of the investment that currently exists in Arizona will be retired in the near future. This results in very short remaining lives. Since the percent condition is a relationship between the remaining lives and total lives, the fact that the remaining lives are short means the percent condition is lower than it otherwise would have been. In other words, an investment that does not have much of its life left has a low percent condition, and that is generally the circumstance in Arizona at the present time.

Q. OTHER THAN ADDRESSING THE "PERCENT CONDITION" CALCULATION, ARE YOU ADDRESSING ANY OTHER PORTION OF THE RECONSTRUCTION COST NEW OR FAIR VALUE CALCULATION?

[22] This Schedule is otherwise similar to Table 2, page 8 of Ms. Hughes Supplemental Exhibit.

1 A. No. The purpose of this portion of my testimony is only to address the calculation of the

2 "percent condition", and the impact of correcting that. Other than in calculating the "percent

3 condition", I have used the same values that USWC used for all portions of this calculation.."[23]

4

5 Q. WHAT DO YOU RECOMMEND ON THIS ISSUE?

6 A. I recommend that the fair value rate base as calculated by USWC be reduced in the amount of

7 $339,520,000. to correct the errors in the "percent condition" calculation as performed by

8 USWC.

9 Q. DOES THIS CONCLUDE THIS TESTIMONY?

10 A. Yes.

[23] Use of the other USWC values for this calculation does not imply approval or agreement, but simply reflects the fact that those values other than "percent condition" are outside of the scope I am addressing.

William Dunkel, Consultant
8625 Farmington Cemetery Road
Pleasant Plains, Illinois 62677

Qualifications

William Dunkel is a consulting engineer specializing in telecommunication regulatory proceedings. He has participated in over 130 state telephone regulatory proceedings as listed attached hereto.

Mr. Dunkel has provided cost analysis, rate design, jurisdictional separations, depreciation, expert testimony and other related services to state agencies throughout the country in numerous telecommunication state proceedings.

Mr. Dunkel made a presentation pertaining to Video Dial Tone at the NASUCA 1993 Mid-Year Meeting held in St. Louis.

In addition, Mr. Dunkel also made a presentation to the NARUC Subcommittee on Economics and Finance at the NARUC Summer Meetings held in July, 1992. That presentation was entitled "The Reason the Industry Wants to Eliminate Cost Based Regulation--Telecommunications is a Declining Cost Industry."

William Dunkel and Associates provides services almost exclusively to public agencies, including the Public Utilities Commission, the Public Counsel, or the State Department of Administration in various states.

In April, 1974, Mr. Dunkel was employed by the Illinois Commerce Commission in the Electric Section as a Utility Engineer. In November of 1975, he transferred to the Telephone Section of the Illinois Commerce Commission and from that time until July, 1980, he participated in essentially all telephone rate cases and other telephone rate matters that were set for hearing in the State of Illinois. During that period, he testified as an expert witness in numerous rate design cases and tariff filings in the areas of rate design, cost studies and separations. During the period 1975-1980, he was the Separations and Settlements expert for the Staff of the Illinois Commerce Commission.

From July, 1977 until July, 1980, he was a Staff member of the FCC-State Joint Board on Separations, concerning the "Impact of Customer Provision of Terminal Equipment on Jurisdictional Separations" in FCC Docket No. 20981 on behalf of the Illinois Commerce Commission. The FCC-State Joint Board is the national board which specifies the rules for separations in the telephone industry.

Mr. Dunkel has taken the AT&T separations school which is normally provided to the AT&T personnel.

Mr. Dunkel has taken the General Telephone separations school which is normally provided for training of the General Telephone Company personnel in separations.

Since July, 1980 he has been regularly employed as an independent consultant in telephone rate proceedings across the nation.

He has testified before the Illinois House of Representatives Subcommittee on Communications, as well as participating in numerous other schools and conferences pertaining to the utility industry.

Prior to employment at the Illinois Commerce Commission, Mr. Dunkel was a design engineer for Sangamo Electric Company designing electric watt-hour meters used in the electric utility industry. He was granted patent No. 3822400 for a solid state meter pulse initiator.

Mr. Dunkel graduated from the University of Illinois in February, 1970 with a Bachelor's of Science Degree in Engineering Physics with emphasis on economics and other business-related subjects. He has taken several post-graduate courses since graduation.

Appendix A

RELEVANT WORK EXPERIENCE OF

WILLIAM DUNKEL

ARIZONA

-	U.S. West Communications	Cost of Service Study
	General rate case	Docket No. E-1051-93-183
	Depreciation case	Docket No. T-01051B-97-0689

ARKANSAS

-	Southwestern Bell Telephone Company	Docket No. 83-045-U

CALIFORNIA

(on behalf of the California Cable Television Association)

-	General Telephone of California	I.87-11-033
-	Pacific Bell	
	Fiber Beyond the Feeder Pre-Approval Requirement	

COLORADO

-	Mountain Bell Telephone Company	
	General Rate Case	Docket No. 96A-218T et al.
	Call Trace Case	Docket No. 92S-040T
	Caller ID Case	Docket No. 91A-462T
	General Rate Case	Docket No. 90S-544T
	Local Calling Area Case	Docket No. 1766
	General Rate Case	Docket No. 1720
	General Rate Case	Docket No. 1700
	General Rate Case	Docket No. 1655
	General Rate Case	Docket No. 1575
	Measured Services Case	Docket No. 1620
-	Independent Telephone Companies	
	Cost Allocation Methods Case	Docket No. 89R-608T

DELAWARE

-	Diamond State Telephone Company	
	General Rate Case	PSC Docket No. 82-32
	General Rate Case	PSC Docket No. 84-33
	Report on Small Centrex	PSC Docket No. 85-32T
	General Rate Case	PSC Docket No. 86-20
	Centrex Cost Proceeding	PSC Docket No. 86-34

Appendix A

DISTRICT OF COLUMBIA

-	C&P Telephone Company of D.C.	
	Depreciation issues	Formal Case No. 926

FLORIDA

-	BellSouth, GTE, and Sprint	
	Fair and reasonable rates	Undocketed Special Project

GEORGIA

-	Southern Bell Telephone & Telegraph Co.	
	General Rate Proceeding	Docket No. 3231-U
	General Rate Proceeding	Docket No. 3465-U
	General Rate Proceeding	Docket No. 3286-U
	General Rate Proceeding	Docket No. 3393-U

HAWAII

-	GTE Hawaiian Telephone Company	
	Depreciation/separations issues	Docket No. 94-0298
	Resale case	Docket No. 7702

ILLINOIS

-	Central Telephone Company	
	(Staunton merger)	Docket No. 78-0595
-	General Telephone & Electronics Co.	
	Usage sensitive service case	Docket Nos. 98-0200/98-0537
	General rate case (on behalf of CUB)	Docket No. 93-0301
	(Usage sensitive rates)	Docket No. 79-0141
	(Data Service)	Docket No. 79-0310
	(Certificate)	Docket No. 79-0499
	(Certificate)	Docket No. 79-0500
-	General Telephone Co.	Docket No. 80-0389
-	Illinois Bell Telephone Company	
	Area code split case	Docket No. 94-0315
	General Rate Case	Docket No. 83-0005
	(Centrex filing)	Docket No. 84-0111
	General Rate Proceeding	Docket No. 81-0478
	(Call Lamp Indicator)	Docket No. 77-0755
	(Com Key 1434)	Docket No. 77-0756
	(Card dialers)	Docket No. 77-0757
	(Concentration Identifier)	Docket No. 78-0005
	(Voice of the People)	Docket No. 78-0028
	(General rate increase)	Docket No. 78-0034
	(Dimension)	Docket No. 78-0086

LLINOIS (CONT.)

(Customer controlled Centrex)	Docket No. 78-0243
(TAS)	Docket No. 78-0031
(Ill. Consolidated Lease)	Docket No. 78-0473
(EAS Inquiry)	Docket No. 78-0531
(Dispute with GTE)	Docket No. 78-0576
(WUI vs. Continental Tel.)	Docket No. 79-0041
(Carle Clinic)	Docket No. 79-0132
(Private line rates)	Docket No. 79-0143
(Toll data)	Docket No. 79-0234
(Dataphone)	Docket No. 79-0237
(Com Key 718)	Docket No. 79-0365
(Complaint - switchboard)	Docket No. 79-0380
(Porta printer)	Docket No. 79-0381
(General rate case)	Docket No. 79-0438
(Certificate)	Docket No. 79-0501
(General rate case)	Docket No. 80-0010
(Other minor proceedings)	Docket No. various
- Home Telephone Company	Docket No. 80-0220
- Northwestern Telephone Company	
Local and EAS rates	Docket No. 79-0142
EAS	Docket No. 79-0519

DIANA

- Public Service of Indiana (PSI)	
Depreciation issues	Cause No. 39584
- Indianapolis Power and Light Company	
Depreciation issues	Cause No. 39938

IOWA

- U S West Communications, Inc.	
Local Exchange Competition	Docket No. RMU-95-5
Local Network Interconnection	Docket No. RPU-95-10
General Rate Case	Docket No. RPU-95-11

KANSAS

- Southwestern Bell Telephone Company	
Commission Investigation of the KUSF	Docket No. 98-SWBT-677-GIT

MAINE

- New England Telephone Company	
General rate proceeding	Docket No. 92-130

MARYLAND

- Chesapeake and Potomac Telephone Company

General rate proceeding	Docket No. 7851
Cost Allocation Manual Case	Case No. 8333
Cost Allocation Issues Case	Case No. 8462

MINNESOTA

- Access charge (all companies) — Docket No. P-321/CI-83-203
- U. S. West Communications, Inc. (Northwestern Bell Telephone Co.)

Centrex/Centron proceeding	Docket No. P-421/91-EM-1002
General rate proceeding	Docket No. P-321/M-80-306
Centrex Dockets	MPUC No. P-421/M-83-466
	MPUC No. P-421/M-84-24
	MPUC No. P-421/M-84-25
	MPUC No. P-421/M-84-26
General rate proceeding	MPUC No. P-421/GR-80-911
General rate proceeding	MPUC No. P-421/GR-82-203
General rate case	MPUC No. P-421/GR-83-600
WATS investigation	MPUC No. P-421/CI-84-454
Access charge case	MPUC No. P-421/CI-85-352
Access charge case	MPUC No. P-421/M-86-53
Toll Compensation case	MPUC No. P-999/CI-85-582
Private Line proceeding	Docket No. P-421/M-86-508

- AT&T

Intrastate Interexchange	Docket No. P-442/M-87-54

MISSISSIPPI

- South Central Bell

General rate filing	Docket No. U-4415

MISSOURI

- Southwestern Bell

General rate proceeding	TR-79-213
General rate proceeding	TR-80-256
General rate proceeding	TR-82-199
General rate proceeding	TR-86-84
General rate proceeding	TC-89-14, et al.
Alternative Regulation	TC-93-224/TO-93-192

- United Telephone Company

Depreciation proceeding	TR-93-181

- All companies

Extended Area Service	TO-86-8
EMS investigation	TO-87-131

EW JERSEY

- New Jersey Bell Telephone Company

General rate proceeding	Docket No. 802-135
General rate proceeding	BPU No. 815-458
	OAL No. 3073-81
Phase I - General rate case	BPU No. 8211-1030
	OAL No. PUC10506-82
General rate case	BPU No. 848-856
	OAL No. PUC06250-84
Division of regulated	BPU No. TO87050398
from competitive services	OAL No. PUC 08557-87
Customer Request Interrupt	Docket No. TT 90060604

NEW MEXICO

- U.S. West Communications, Inc.

E-911 proceeding	Docket No. 92-79-TC
General rate proceeding	Docket No. 92-227-TC
General rate/depreciation proceeding	Case No. 3008

OHIO

- Ohio Bell Telephone Company

General rate proceeding	Docket No. 79-1184-TP-AIR
General rate increase	Docket No. 81-1433-TP-AIR
General rate increase	Docket No. 83-300-TP-AIR
Access charges	Docket No. 83-464-TP-AIR

- General Telephone of Ohio

General rate proceeding	Docket No. 81-383-TP-AIR

- United Telephone Company

General rate proceeding	Docket No. 81-627-TP-AIR

OKLAHOMA

- Public Service of Oklahoma

Depreciation case	Cause No. 96-0000214

ENNSYLVANIA

- GTE North, Inc.
  - Interconnection proceeding — Docket No. A-310125F002
- Bell Telephone Company of Pennsylvania
  - Alternative Regulation proceeding — Docket No. P-00930715
  - Automatic Savings — Docket No. R-953409
  - Rate Rebalance — Docket No. R-00963550
- Enterprise Telephone Company
  - General rate proceeding — Docket No. R-922317
- All companies
  - InterLATA Toll Service Invest. — Docket No. I-910010
- GTE North and United Telephone Company
  - Local Calling Area Case — Docket No. C-902815

SOUTH DAKOTA

- Northwestern Bell Telephone Company
  - General rate proceeding — Docket No. F-3375

TENNESSEE

(on behalf of Time Warner Communications)

- BellSouth Telephone Company
  - Avoidable costs case — Docket No. 96-00067

TAH

- U.S. West Communications (Mountain Bell Telephone Company)
  - General rate case — Docket No. 84-049-01
  - General rate case — Docket No. 88-049-07
  - 800 Services case — Docket No. 90-049-05
  - General rate case/ incentive regulation — Docket No. 90-049-06/90-049-03
  - General rate case — Docket No. 92-049-07
  - General rate case — Docket No. 95-049-05
  - General rate case — Docket No. 97-049-08

VIRGIN ISLANDS, U.S.

- Virgin Islands Telephone Company
  - General rate case — Docket No. 264
  - General rate case — Docket No. 277
  - General rate case — Docket No. 314
  - General rate case — Docket No. 316

RGINIA

- General Telephone Company of the South
  - Jurisdictional allocations — Case No. PUC870029
  - Separations — Case No. PUC950019

WASHINGTON

- US West Communications, Inc.
  - Interconnection case — Docket No. UT-960369
  - General rate case — Docket No. UT-950200
- All Companies- — Analyzed the local calling areas in the State

WISCONSIN

- Wisconsin Bell Telephone Company
  - Private line rate proceeding — Docket No. 6720-TR-21
  - General rate proceeding — Docket No. 6720-TR-34

SCHEDULE WDA-1 CONTAINS INFORMATION

CLAIMED TO BE PROPRIETARY BY USWC.

THEREFORE, IT HAS BEEN DELETED

FROM THIS TESTIMONY.

02/16/00
09:55 AM
XREF: 03
PRES: 1991,SF,02
PROP: 1997,SG,82

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2123.1 OFFICE EQUIPMENT
CATEGORY: 2123.1 OFFICE EQUIPMENT
TABLE 2-VG/ELG

PROJECTION LIFE TABLE
AVERAGE SERVICE LIFE AND REMAINING LIFE BY AGE

PROJECTION LIFE TABLE PARAMETERS AVG LIFE 7.00

USING IOWA CURVE: L0.5

BEGINNING OF YEAR		AMOUNT RETIRED		ANNUAL ACCRUALS FOR BOY AGE A		ELG AVG. SER	ELG AVG. REMAIN	VG VINT REMAIN.
AGE	AMOUNT IN SERVICE	DURING YEAR (LIFE GROUP)	AGE OF AMOUNT RETIRED	EACH LIFE GROUP	FOR ALL REMAINING GROUPS	VICE LIFE	ING LIFE	LIFE
A	B	C=B-next B	D	E=C/D	F*	G=B/F	H=G-A	I#
0.0	100,000	1,198	0.5	2,396	24,583	4.07	4.07	7.00
0.5	98,802	4,651	1.0	4,651	22,187	4.45	3.95	6.58
1.5	94,151	7,025	2.0	3,513	17,536	5.37	3.87	5.88
2.5	87,126	8,882	3.0	2,961	14,023	6.21	3.71	5.32
3.5	78,244	9,745	4.0	2,436	11,063	7.07	3.57	4.87
4.5	68,499	9,609	5.0	1,922	8,626	7.94	3.44	4.49
5.5	58,890	9,247	6.0	1,541	6,704	8.78	3.28	4.14
6.5	49,643	8,677	7.0	1,240	5,163	9.61	3.11	3.82
7.5	40,966	7,936	8.0	992	3,924	10.44	2.94	3.52
8.5	33,030	7,066	9.0	785	2,932	11.27	2.77	3.24
9.5	25,964	6,113	10.0	611	2,147	12.10	2.60	2.99
10.5	19,851	5,127	11.0	466	1,535	12.93	2.43	2.76
11.5	14,724	4,162	12.0	347	1,069	13.77	2.27	2.54
12.5	10,562	3,256	13.0	250	722	14.62	2.12	2.35
13.5	7,306	2,449	14.0	175	472	15.48	1.98	2.17
14.5	4,856	1,762	15.0	117	297	16.35	1.85	2.01
15.5	3,094	1,208	16.0	75	180	17.24	1.74	1.87
16.5	1,886	786	17.0	46	104	18.14	1.64	1.75
17.5	1,100	485	18.0	27	58	19.05	1.55	1.64
18.5	615	284	19.0	15	31	19.96	1.46	1.54
19.5	330	160	20.0	8	16	20.88	1.38	1.44
20.5	170	88	21.0	4	8	21.77	1.27	1.32
21.5	82	45	22.0	2	4	22.66	1.16	1.20
22.5	37	23	23.0	1	2	23.52	1.02	1.05
23.5	14	9	24.0	0	1	24.40	0.90	0.92
24.5	5	4	25.0	0	0	25.19	0.69	0.70
TOTAL		99,999						

* F(AGE A) = SUM OF COL E AGE A TO END
\# I = 0.5 + ((SUM OF COL B FROM AGE A+1 THROUGH END)/(COL B AT AGE A))

Arizona
Docket No. T-1051B-99-105
WDA 23-005S1

INTERVENOR: Arizona Corporation Commission Staff (Dunkel)

REQUEST NO: 005S1

A. Please provide U S WEST's plans to use the money from the increase in depreciation annual accruals approved in Docket No. T-01051B-97-0689 to update the current infrastructure in Arizona. If available, this plan should detail the wirecenters that are being updated and the average age of the plant being replaced.

B. The dollar amount of investment to be retired in each depreciable account should be separately provided for each year in the plan.

RESPONSE:

U S WEST objects to Data Request WDA 23-005 on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. This data request concerns U S WEST's depreciation rates, a matter that has already been decided by the Commission.

U S WEST Law Department
1801 California Street
Denver, CO 80202

<u>Supplemental Response 07/10/00:</u>
U S WEST has not received monies from the increase in depreciation annual accurals approved in Docket No. T-01051B-97-0689.

Qwest Law Department
1801 California St.
Denver, CO 80202

Calculation of the
Modernization Incentive Credit
For Calendar Year _____

Step:

1. Calculate the percent of investment retired:

a.	Plant in Service at Start of Year	$_____
b.	Retirements in Year	$_____
c.	Percent Retired (Line b/Line a)	____%

2. Compare to the annual retirement expectations in the ACC approved depreciation rates:

d.	Annual retirement expected in approved depreciation rates	13 %
e.	Percent of expectation not met (1-(Line c/line d))	____%

3. Calculate the credit for the expectation not met:

f.	Intrastate depreciation expense accrued in year	$_____
g.	Annual credit amount ((Line f x Line e)	$_____
h.	Monthly credit amount (Line g/12)	$_____
i.	Working loops in year[1]	_____
j.	Monthly credit per line (Line h/Line i)	$_____

4. Credit the bills if expectations not met

a. Commencing with the June bills, the customers will receive a per line credit which is the amount shown on line j. This initial credit will be calculated using the figures as filed by USWC.

b. The monthly per line credit will appear on customer bills for the twelve consecutive months starting with June. The credit or revised credit will be paid to the customers on a per line basis, based upon the number of lines they have in service the month in which the credit is paid.

c. In the event that the Commission subsequently determines that adjustments to the figures as filed by USWC are required, the credits following that determination will be adjusted so that the total credit amount shown on line g corrected is returned to the customers.

d. The amount of the credit will be deducted from intrastate accumulated depreciation (Account 32.3100).

[1] "Working loops" per FCC Rules Part 36.611(h). (The number of "working loops" is reported in ARMIS reports, which are publicly available.)

Notes:

1. The filled out schedule is to be filed by May 1 of the immediately following year.

2. If the actual retirements exceed expectations, that will be carried forward to the credit calculation in the following year. Specifically, if line e is over 100%, enter 100% and carry the additional percent forward as an addition to line c in the following year's calculation. (For example, if line c was 15%, then 2% (15%-13%) would be carried forward and added to the line c figure in the following year.

3. All figures are for USWC Arizona regulated operations.

4. One goal of this Modernization Incentive Credit is to stimulate actual physical modernization in Arizona, not to simply generate "book entry" retirements that do not reflect current physical retirements and modernization. The retirement amounts the Company provides on line b should be the booked retirement amounts associated with investments that have physically retired within the calendar year being addressed, or at the most, had physically retired in the year prior to that year (but were booked in the calendar year being addressed).

5. Concurrent with filing the report, the Company will provide supporting workpapers, and will also make available to the Commission Staff the underlying records. The Company will provide Staff with access to knowledgeable personnel, and will respond to relevant Staff inquiries.

Calculation of the
Modernization Incentive Credit
For Calendar Year XXXX

Step:

1. Calculate the percent of investment retired:

a.	Plant in Service at Start of Year	$5,000,000,000
b.	Retirements in Year	$ 500,000,000
c.	Percent Retired (Line b/Line a)	10.00%

2. Compare to the annual retirement expectations in the ACC approved depreciation rates:

d.	Annual retirement expected in approved depreciation rates	13 %
e.	Percent of expectation not met (1-(Line c/line d))	3 %

3. Calculate the credit for the expectation not met:

f.	Intrastate depreciation expense accrued in year	$600,000,000
g.	Annual credit amount ((Line f x Line e)	$ 18,000,000
h.	Monthly credit amount (Line g/12)	$ 1,500,000
i.	Working loops in year[1]	2,500,000
j.	Monthly credit per line (Line h/Line i)	$0.60

4. Credit the bills if expectations not met

a. Commencing with the June bills, the customers will receive a per line credit which is the amount shown on line j. This initial credit will be calculated using the figures as filed by USWC.

b. The monthly per line credit will appear on customer bills for the twelve consecutive months starting with June. The credit or revised credit will be paid to the customers on a per line basis, based upon the number of lines they have in service the month in which the credit is paid.

c. In the event that the Commission subsequently determines that adjustments to the figures as filed by USWC are required, the credits following that determination will be adjusted so that the total credit amount shown on line g corrected is returned to the customers.

d. The amount of the credit will be deducted from intrastate accumulated depreciation (Account 32.3100).

[1] "Working loops" per FCC Rules Part 36.611(h). (The number of "working loops" is reported in ARMIS reports, which are publicly available.)

SCHEDULE WDA-6 CONTAINS INFORMATION

CLAIMED TO BE PROPRIETARY BY USWC.

THEREFORE, IT HAS BEEN DELETED

FROM THIS TESTIMONY.

The calculation of the 6.6 year remaining life using 1/1/97 investments used in the USWC calculation of the 5.8% Radio Systems depreciation rate.

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2231
CATEGORY: Radio Systems
TABLE: 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

	VINTAGE YEAR	EXPERIENCE AS OF 1/1/1997 AGE A	AMOUNT SURVIVING B	PROP SURV C	REAL LIFE D	REMAINING LIFE YEARS E++	VINTAGE AVERAGE LIFE YEARS F+++	AVERAGE LIFE WEIGHTS G=B/F	REMAINING LIFE WEIGHTS H=E*G
*	1996	0.5	527188	1	0.5	12.04	12.54	42,045	506,166
*	1995	1.5	183990	0.96536015	1.44804022	11.15	12.65	14,543	162,175
*	1994	2.5	3093115	0.98131795	2.47266801	10.33	12.83	241,066	2,490,449
*	1993	3.5	1320328	0.94865869	3.47736762	9.57	13.07	101,023	966,748
*	1992	4.5	2199377	0.95905479	4.41845149	8.86	13.36	164,582	1,458,756
*	1991	5.5	953138	0.86483941	5.32192761	8.21	13.71	69,524	570,755
*	1990	6.5	2523789	0.82005472	6.18418471	7.61	14.11	178,928	1,360,759
*	1989	7.5	3929215	0.9174314	7.09604591	7.05	14.55	270,124	1,903,287
*	1988	8.5	5218816	0.76347528	6.83268469	6.53	15.03	347,244	2,267,244
*	1987	9.5	5146432	0.86651789	8.73551219	6.05	15.55	330,938	2,002,520
*	1986	10.5	1105211	0.82449726	9.85187203	5.61	16.11	68,614	384,761
*	1985	11.5	6247736	0.74764048	10.83539779	5.19	16.69	374,264	1,943,703
*	1984	12.5	951213	0.74990027	10.30429468	4.81	17.31	54,963	264,181
*	1983	13.5	1825149	0.74268878	11.62447148	4.45	17.95	101,698	452,229
**	1982	14.5	295670	0.54785815	11.27048385	4.59	13.79	21,447	98,476
**	1981	15.5	261512	0.35514227	10.4586675	4.19	11.95	21,888	91,778
**	1980	16.5	218900	0.22982345	11.984206	3.82	12.86	17,018	65,046
**	1979	17.5	366013	0.18856386	12.16528611	3.48	12.82	28,549	99,222
**	1978	18.5	434649	0.21232552	14.1925212	3.15	14.86	29,247	92,133
**	1977	19.5	701103	0.31004747	14.19114488	2.84	15.07	46,514	132,277
**	1976	20.5	354927	0.18276883	15.17414576	2.55	15.64	22,692	57,942
**	1975	21.5	108255	0.05503655	12.36107017	2.28	12.49	8,670	19,739
**	1974	22.5	150991	0.10468624	13.64589448	2.01	13.86	10,897	21,924
**	1973	23.5	348912	0.14136796	18.12259153	1.76	18.37	18,993	33,344
**	1972	24.5	303394	0.20527675	17.10866425	1.51	17.42	17,418	26,244
**	1971	25.5	326874	0.14760742	17.61372992	1.26	17.80	18,364	23,198
**	1970	26.5	74225	0.16273347	18.73789539	1.02	18.90	3,926	4,019
**	1969	27.5	15868	0.05732311	14.49509025	0.79	14.54	1,091	865
**	1968	28.5	70498	0.10815829	19.31460583	0.58	19.38	3,638	2,125
**	1967	29.5	44480	0.06788322	19.01954757	0.50	19.05	2,334	1,167
**	1966	30.5	46195	0.20695498	19.92420019	0.50	20.03	2,307	1,153
**	1965	31.5	9742	0.02112731	17.08773391	0.50	17.10	570	285
**	1964	32.5	31321	0.03718241	17.51468185	0.50	17.53	1,786	893
**	1963	33.5	6129	0.0154294	16.1416416	0.50	16.15	380	190
**	1962	34.5	15537	0.01541005	16.98562563	0.50	16.99	914	457
**	1961	35.5	15856	0.01325496	16.37295116	0.50	16.38	968	484
**	1960	36.5	3520	0.01241958	15.53386449	0.50	15.54	227	113
**	1959	37.5	2236	0.0643213	16.83188195	0.50	16.86	133	66
**	1958	38.5	2000	0.00455	14.256725	0.50	14.26	140	70
**	1957	39.5	4362	0.0579	15.5979	0.50	15.63	279	140
**	1956	0.0	2362	0.01583274	10.31426459	0.50	10.32	229	114
**	1955	0.0	3336	0.0412	14.5129	0.50	14.53	230	115
**	1954	0.0	0	0	0	0.50	0.00	0	0
**	1953	0.0	0	0	0	0.50	0.00	0	0
**	1952	0.0	0	0	0	0.50	0.00	0	0
**	1951	0.0	0	0	0	0.50	0.00	0	0
**	1950	0.0	2365	0.90370164	10.16275575	0.50	10.61	223	111
	TOTAL		39,445,929					2,640,627	17,507,423
	NON-ELG		4,221,232					281,071	773,691
	ELG		35,224,697					2,359,556	16,733,732

AVG SERVICE LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT B/TOT G	14.93809	15.01837	14.92853
AVG REMAINING LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT H/TOT G	6.63002	2.75265	7.09190
COMPUTED GROSS ADDS-ALL VINTS:			
SUM OF (B/C)	69,439,144		
AVG PROPORTION SURVIVING:			
B/SUM OF(B/C)	0.56806		

NOTES:
REMAINING LIFE VALUES CALCULATED USING ELG TARGETING
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES

AVG LIFE: 15.1

IOWA CURVE: S1.5

THE FOLLOWING PAGES ARE FROM

USWC'S RESPONSE TO DATA REQUEST WDA 21-001S1

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2231 RADIO SYSTEMS
CATEGORY: 2231 RADIO SYSTEMS
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAIN ING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*1999	0.5	1,082,552	1.0000	0.50	12.04	12.54	86,338	1,039,383
*1998	1.5	727,226	0.9561	1.45	11.15	12.65	57,486	640,998
*1997	2.5	297,847	0.9095	2.44	10.33	12.83	23,215	239,808
*1996	3.5	729,679	0.9240	3.41	9.57	13.07	55,837	534,249
*1995	4.5	142,245	0.7318	4.08	8.86	13.36	10,645	94,340
*1994	5.5	2,846,386	0.9109	5.34	8.21	13.71	207,638	1,704,380
*1993	6.5	1,310,723	0.9735	6.43	7.60	14.10	92,938	706,626
*1992	7.5	1,714,157	0.8007	7.04	7.04	14.54	117,861	830,201
*1991	8.5	857,900	0.8229	7.95	6.53	15.03	57,093	372,607
*1990	9.5	2,421,797	0.8014	8.64	6.05	15.55	155,778	941,908
*1989	10.5	3,358,029	0.7993	9.74	5.60	16.10	208,553	1,168,218
*1988	11.5	4,623,326	0.6924	9.07	5.19	16.69	277,053	1,437,212
*1987	12.5	4,401,567	0.7427	11.11	4.80	17.30	254,406	1,221,486
*1986	13.5	762,163	0.6200	12.20	4.44	17.94	42,484	188,629
*1985	14.5	5,371,671	0.7799	13.45	4.10	18.60	288,788	1,184,251
*1984	15.5	659,442	0.5323	12.40	3.78	19.28	34,201	129,323
*1983	16.5	1,359,496	0.5580	13.59	3.48	19.98	68,046	236,737
1982	17.5	163,485	0.3098	12.71	3.48	13.78	11,860	41,221
1981	18.5	178,361	0.2429	11.40	3.15	12.17	14,656	46,171
1980	19.5	182,674	0.1844	12.54	2.84	13.07	13,980	39,756
1979	20.5	227,207	0.1485	12.91	2.55	13.29	17,101	43,664
1978	21.5	304,728	0.1489	14.75	2.28	15.09	20,195	45,978
1977	22.5	295,324	0.1327	14.76	2.01	15.03	19,651	39,539
1976	23.5	232,464	0.1222	15.61	1.76	15.82	14,691	25,792
1975	24.5	91,617	0.0466	12.51	1.51	12.58	7,283	10,972
1974	25.5	77,131	0.0545	13.87	1.26	13.94	5,534	6,992
1973	26.5	330,274	0.1362	18.53	1.02	18.67	17,692	18,120
1972	27.5	247,659	0.1804	17.80	0.79	17.95	13,800	10,942
1971	28.5	169,794	0.0813	17.92	0.59	17.97	9,450	5,533
1970	29.5	50,837	0.1114	19.16	0.50	19.22	2,646	1,323
1969	30.5	7,337	0.0293	14.60	0.50	14.61	502	251
1968	31.5	45,268	0.0715	19.61	0.50	19.65	2,304	1,152
1967	32.5	7,289	0.0114	18.68	0.50	18.68	390	195
1966	33.5	6,235	0.0306	20.27	0.50	20.29	307	154
1965	34.5	1,818	0.0066	17.14	0.50	17.14	106	53
1964	35.5	16,819	0.0200	17.61	0.50	17.62	955	477
1963	36.5	2,877	0.0072	16.17	0.50	16.18	178	89
1962	37.5	4,353	0.0044	17.00	0.50	17.00	256	128
1961	38.5	6,716	0.0070	16.38	0.50	16.39	410	205
1960	39.5	6,677	0.0070	15.57	0.50	15.57	429	214
TOTAL		35,323,148					2,212,736	13,009,278

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2231 RADIO SYSTEMS
CATEGORY: 2231 RADIO SYSTEMS
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAIN ING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
NON-ELG	V	2,656,944					174,375	338,921
ELG	V	32,666,204					2,038,361	12,670,357

	ALL VINTS	NELG VINTS	ELG VINTS
AVG SERVICE LIFE: TOT B/TOT G	15.96356	15.23695	16.02572
AVG REMAINING LIFE: TOT H/TOT G	5.87927	1.94363	6.21595

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 68,256,071
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.51751

USING IOWA CURVE: S1.5
* ELG VINTAGES, PROJECTION LIFE 15.1
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

SCHEDULE WDA-9 CONTAINS INFORMATION

CLAIMED TO BE PROPRIETARY BY USWC.

THEREFORE, IT HAS BEEN DELETED

FROM THIS TESTIMONY.

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2124
CATEGORY: Genl Purp Computers
TABLE: 2-VG/ELG

PROJECTED LIFE TABLE
AVERAGE SERVICE LIFE AND REMAINING LIFE BY AGE

PROJECTION LIFE TABLE PARAMETERS

AVG LIFE: 5

IOWA CURVE: O1

BEGINNING OF YEAR		AMOUNT RETIRED	AGE OF	ANNUAL ACCRUALS FOR BOY AGE A		ELG AVG	ELG AVG	VG VINT
AGE	AMOUNT IN SERVICE	DURING YEAR (LIFE GROUP)	AMOUNT RETIRED	EACH LIFE GROUP	ALL REMAINING LIFE GROUPS	SERVICE LIFE	REMAINING LIFE	REMAINING LIFE
A	B	C=B-next B	D	E=C/D	F	G=B/F	H=G-A	I
0.0	100,000	5,000	0.5	10,000	38,790	2.58	2.58	5.00
0.5	95,000	10,000	1.0	10,000	28,790	3.30	2.80	4.76
1.5	85,000	10,000	2.0	5,000	18,790	4.52	3.02	4.26
2.5	75,000	10,000	3.0	3,333	13,790	5.44	2.94	3.77
3.5	65,000	10,000	4.0	2,500	10,457	6.22	2.72	3.27
4.5	55,000	10,000	5.0	2,000	7,957	6.91	2.41	2.77
5.5	45,000	10,000	6.0	1,667	5,957	7.55	2.05	2.28
6.5	35,000	10,000	7.0	1,429	4,290	8.16	1.66	1.79
7.5	25,000	10,000	8.0	1,250	2,861	8.74	1.24	1.30
8.5	15,000	10,000	9.0	1,111	1,611	9.31	0.81	0.83
9.5	5,000	5,000	10.0	500	500	10.00	0.50	0.50
0.0	0	0	11.0	0	0	11.00	0.50	0.50

Arizona
Docket No. T-1051B-99-105
WDA 21-001S1

INTERVENOR: Arizona Corporation Commission Staff (Dunkel)

REQUEST NO: 001S1

Please provide each of the following on an intrastate basis (not FCC) for each depreciable account:

A. Separately for December 31, 1998 and December 31, 1999, for each depreciable account please provide the complete generations arrangements on an intrastate basis not FCC basis. In addition to the paper copy, please also provide this requested information in electronic format on an IBM compatible 3.5" disk or an Iomega 100 MB Zip Disk.

B. For each depreciable account please provide the depreciation reserve balance as of December 31, 1998 and separately December 31, 1999.

C. For each depreciable account please provide the total retirements separately for 1998 and 1999.
Please provide each of the following on an intrastate basis (not FCC) for each depreciable account:

D. For each depreciable account please provide the retirements by vintage separately for 1998 and 1999. In addition to the paper copy, please also provide this requested information in electronic format on an IBM compatible 3.5" disk or an Iomega 100 MB Zip Disk.

E. For each depreciable account please provide the total additions separately for 1998 and 1999.

F. For each depreciable account please provide the plant in service as of December 31, 1998 and separately December 31, 1999.

RESPONSE:

A. On January 6, 2000 and April 25, 2000, the Commission decided upon depreciation parameters and lives to be used in Docket No. T-1051B-99-105. WDA 21-1, Part A requests generation arrangements which require completely new depreciation studies and are no longer relevant for this rate case. Therefore, generation arrangements have not been provided.

B. Please see Attachment D.

C. Please see Attachments A and B for the December 1998 and 1999 versions,

respectively, of the JR 2A report. The "Plant Retired" column displays the requested information. Totals only are reported, this information is not available on an intrastate basis.

D. Please see Confidential Attachment C for the 1998 and 1999 retirements by vintage.

E. Please see Attachments A and B for the December 1998 and 1999 versions, respectively, of the JR 2A report. The "Plant Added" column displays the requested information.

F. Please see Attachments A and B for the December 1998 and 1999 versions, respectively, of the JR 2A report. The "Total at End of Period" column displays the requested information.

Confidential Attachment C is being provided pursuant to the terms of the Proctective Agreement.

Bill Muir
Technical Accountant
1600 17th Street, Rm. 3008
Seattle WA

Kathleen Tuttle
Manager - Capital Recovery
1314 DOTM
Omaha, NE

Supplemental Response 07/10/00
Attachments A-1 and A-2 contain the requested generation arrangement data for 1998 and 1999, respectively. Attachment B contains the generation arrangement data for both years in FCC electronic format.

Jim Jones
Manager - Capital Recovery
1801 California Street
Denver, CO 80202

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2232 CIRCUIT DIGITAL
CATEGORY: 2232 CIRCUIT DIGITAL
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*1999	0.5	140,227,026	1.0000	0.50	4.59	5.09	27,523,079	126,465,486
*1998	1.5	123,445,446	0.9999	1.50	5.30	6.80	18,161,555	96,203,114
*1997	2.5	81,098,786	0.9406	2.46	5.56	8.06	10,066,887	55,931,567
*1996	3.5	121,882,842	0.9578	3.47	5.63	9.13	13,352,068	75,150,604
*1995	4.5	80,249,683	0.9340	4.41	5.60	10.10	7,946,836	44,488,920
*1994	5.5	62,727,461	0.9298	5.39	5.51	11.01	5,698,648	31,384,897
*1993	6.5	44,952,094	0.9179	6.28	5.38	11.88	3,783,465	20,359,571
*1992	7.5	51,192,730	0.9303	7.23	5.24	12.74	4,018,489	21,054,063
*1991	8.5	54,557,795	0.8801	8.14	5.10	13.60	4,011,893	20,456,708
*1990	9.5	53,834,118	0.8480	8.94	4.98	14.48	3,718,708	18,506,389
*1989	10.5	41,665,493	0.7668	9.57	4.89	15.39	2,707,903	13,232,515
*1988	11.5	46,458,503	0.7368	9.85	4.84	16.34	2,843,286	13,760,715
*1987	12.5	41,471,890	0.6837	10.22	4.84	17.34	2,392,200	11,569,390
*1986	13.5	51,645,717	0.6930	11.25	4.86	18.36	2,812,336	13,679,182
*1985	14.5	49,313,875	0.6753	11.95	4.90	19.40	2,541,925	12,455,969
*1984	15.5	29,096,112	0.6637	12.76	4.92	20.42	1,424,987	7,008,810
*1983	16.5	21,143,649	0.5436	12.62	4.90	21.40	988,107	4,839,877
1982	17.5	12,388,237	0.4760	12.94	5.46	15.54	797,229	4,349,716
1981	18.5	6,515,999	0.4660	12.67	5.23	15.11	431,203	2,256,376
1980	19.5	3,727,123	0.3381	12.60	4.96	14.28	260,973	1,295,265
1979	20.5	2,002,245	0.2582	12.10	4.65	13.30	150,512	700,216
1978	21.5	1,038,904	0.2023	11.64	4.31	12.51	83,026	357,467
1977	22.5	712,952	0.1382	11.33	3.93	11.87	60,043	235,880
1976	23.5	1,085,942	0.0671	11.82	3.53	12.06	90,050	317,526
1975	24.5	834,144	0.1267	12.67	3.10	13.06	63,853	198,121
1974	25.5	1,196,551	0.2597	15.22	2.66	15.91	75,199	200,227
1973	26.5	951,699	0.2252	15.66	2.21	16.16	58,903	130,151
1972	27.5	495,276	0.2715	16.75	1.75	17.22	28,760	50,237
1971	28.5	466,490	0.1594	16.34	1.28	16.55	28,191	36,121
1970	29.5	208,647	0.2456	16.50	0.83	16.70	12,494	10,322
1969	30.5	327,820	0.3082	19.54	0.50	19.70	16,641	8,321
1968	31.5	9,779	0.3381	20.61	0.50	20.78	471	235
1967	32.5	77,917	0.1092	17.74	0.50	17.79	4,379	2,189
1966	33.5	59,510	0.1088	17.71	0.50	17.76	3,351	1,675
1965	34.5	20,933	0.0463	17.83	0.50	17.86	1,172	586
1964	35.5	43,099	0.1025	18.61	0.50	18.66	2,310	1,155
1963	36.5	6,884	0.0088	16.92	0.50	16.92	407	203
1962	37.5	1,336	0.0180	17.21	0.50	17.22	78	39
1961	38.5	22,563	0.0513	17.84	0.50	17.87	1,263	631
1960	39.5	1,262	0.0025	16.91	0.50	16.91	75	37
1959	40.5	666	0.0267	18.24	0.50	18.26	36	18
1958	41.5	544	0.0010	17.52	0.50	17.52	31	16

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2232 CIRCUIT DIGITAL
CATEGORY: 2232 CIRCUIT DIGITAL
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
1957	42.5	1,641	0.0025	17.09	0.50	17.09	96	48
1956	43.5	394	0.0032	19.69	0.50	19.69	20	10
1955	44.5	737,034	0.1710	14.82	0.50	14.90	49,460	24,730
1954	45.5	749	0.0749	19.50	0.50	19.54	38	19
1953	46.5	0	0.0000	0.00				
1952	47.5	3,609	0.0259	13.71	0.50	13.73	263	131
1951	48.5	0	0.0000	0.00				
1950	49.5	151,692	0.1596	20.25	0.50	20.33	7,460	3,730
TOTAL		1,128,054,860					116,220,359	596,729,176
NON-ELG V		33,091,641					2,227,986	10,181,400
ELG V		1,094,963,219					113,992,373	586,547,777

AVG SERVICE LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT B/TOT G	9.70617	14.85271	9.60558
AVG REMAINING LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT H/TOT G	5.13446	4.56978	5.14550

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 1,386,424,807
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.81364

USING IOWA CURVE: O2.0
* ELG VINTAGES, PROJECTION LIFE 10.0
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

Depreciation Systems

FRANK K. WOLF

W. CHESTER FITCH

IOWA STATE UNIVERSITY PRESS / AMES

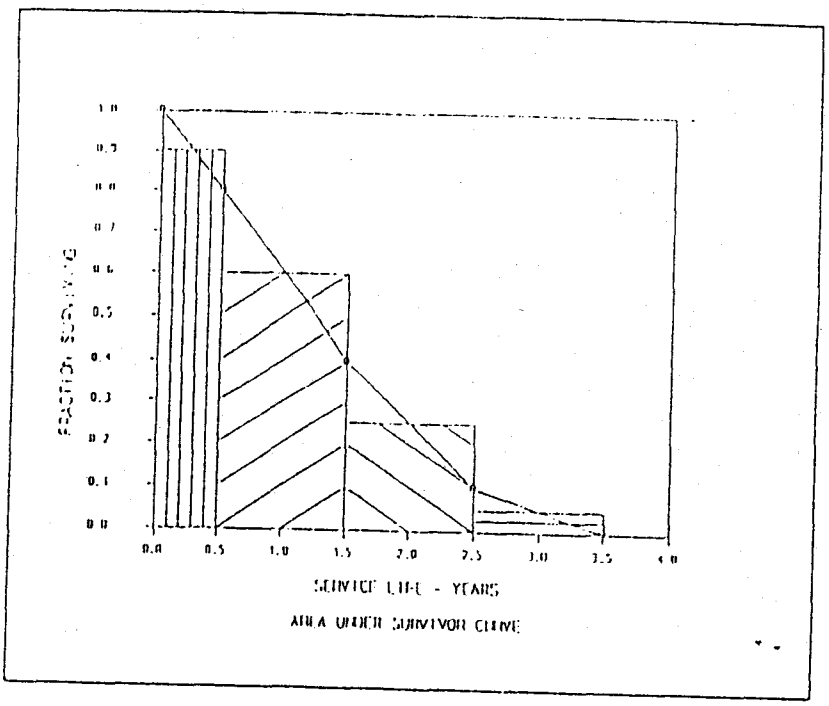

Figure 3.4. The area under the survivor curve.

cent surviving). This calculation is $[(0.4 + 0.1)/2 + (0.1 + 0)/2]/0.4 = 0.3/0.4 = 0.75$ years.

The terms *expectancy* and *average remaining life* are both commonly used to describe the E(remaining life at beginning of age interval i). The term average remaining life, which is often shortened to *remaining life*, is more descriptive and will be used in this text. The term *probable life* is used to describe the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age. The remaining life and probable life of the example property are shown below.

Age	% Surviving	Area under Curve, Right of Age, % – Years	Remaining Life, Years	Probable Life, Years
0.0	100%	135	1.35	1.35
0.5	80%	90	1.125	1.625
1.5	40%	30	0.75	2.25
2.5	10%	5	0.50	3.00
3.5	0%	0	...	...

U S West Communications - Arizona
Reproduction Cost New Less Depreciation
Telephone Plant in Service as of December 31, 1999

Plant Account: Circuit Digital
Plant Sub-Account: Circuit Digital
Index Number: 2232
Field Code: CRD
Survivor Curve: O2
Average Service Life: 10

Year of Placing	Original Cost as of 12/31/99	Telephone Plant Index	Telephone Plant Translator	Reproduction Cost New	Age as of 12/31/99	Life Expectancy (Average Remaining Life) 12/31/99	Probable Service Life	Condition Percent	Reproduction Cost New Less Depreciation
A	B	C	D	E=B*D	F	G	H=F+G	I=(H-F)/H	J=E*I
1950	151,692	44.6	1.982	300,663	49.50	0.00	49.50	0.00%	0
1951	0	46.3	1.909	0	48.50	0.00	48.50	0.00%	0
1952	3,609	42.4	2.085	7,524	47.50	0.00	47.50	0.00%	0
1953	0	38.9	2.272	0	46.50	0.00	46.50	0.00%	0
1954	749	39.3	2.249	1,685	45.50	0.00	45.50	0.00%	0
1955	737,034	39.2	2.255	1,662,087	44.50	0.00	44.50	0.00%	0
1956	394	39.8	2.221	875	43.50	0.00	43.50	0.00%	0
1957	1,641	41.4	2.135	3,504	42.50	0.00	42.50	0.00%	0
1958	544	42.3	2.090	1,137	41.50	0.00	41.50	0.00%	0
1959	666	41.5	2.130	1,419	40.50	0.00	40.50	0.00%	0
1960	1,262	40.6	2.177	2,748	39.50	0.00	39.50	0.00%	0
1961	22,563	40.4	2.188	49,371	38.50	0.00	38.50	0.00%	0
1962	1,336	39.6	2.232	2,982	37.50	0.00	37.50	0.00%	0
1963	6,884	39.8	2.221	15,290	36.50	0.00	36.50	0.00%	0
1964	43,099	39.8	2.221	95,727	35.50	0.00	35.50	0.00%	0
1965	20,933	38.7	2.284	47,816	34.50	0.00	34.50	0.00%	0
1966	59,510	38.3	2.308	137,355	33.50	0.00	33.50	0.00%	0
1967	77,917	39.0	2.267	176,612	32.50	0.00	32.50	0.00%	0
1968	9,779	40.4	2.188	21,398	31.50	0.00	31.50	0.00%	0
1969	327,820	41.5	2.130	698,296	30.50	0.00	30.50	0.00%	0
1970	208,647	42.6	2.075	432,967	29.50	0.23	29.73	0.77%	3,334
1971	466,490	44.4	1.991	928,777	28.50	0.66	29.16	2.26%	20,990
1972	495,276	45.6	1.939	960,140	27.50	1.12	28.62	3.91%	37,541
1973	951,699	47.7	1.853	1,763,736	26.50	1.65	28.15	5.86%	103,355
1974	1,196,551	53.0	1.668	1,995,757	25.50	2.10	27.60	7.61%	151,877
1975	834,144	57.5	1.537	1,282,406	24.50	2.97	27.47	10.81%	138,628
1976	1,085,942	59.8	1.478	1,605,306	23.50	3.35	26.85	12.48%	200,342
1977	712,952	61.1	1.447	1,031,505	22.50	3.70	26.20	14.12%	145,649
1978	1,038,904	61.3	1.442	1,498,191	21.50	4.02	25.52	15.75%	235,965
1979	2,002,245	62.8	1.408	2,818,447	20.50	4.29	24.79	17.31%	487,873
1980	3,727,123	64.2	1.377	5,132,051	19.50	4.52	24.02	18.82%	965,852
1981	6,515,999	69.9	1.265	8,240,548	18.50	4.70	23.20	20.26%	1,669,535
1982	12,388,237	75.4	1.172	14,524,140	17.50	4.83	22.33	21.63%	3,141,571
1983	21,143,649	83.4	1.060	22,411,254	16.50	4.90	21.40	22.90%	5,132,177
1984	29,096,112	87.6	1.009	29,361,830	15.50	4.92	20.42	24.09%	7,073,265
1985	49,313,875	97.0	0.911	44,941,717	14.50	4.90	19.40	25.26%	11,352,278
1986	51,645,717	101.8	0.868	44,847,558	13.50	4.86	18.36	26.47%	11,871,149
1987	41,471,890	100.2	0.882	36,587,975	12.50	4.84	17.34	27.91%	10,211,704
1988	46,458,503	100.0	0.884	41,069,317	11.50	4.84	16.34	29.62%	12,164,732
1989	41,665,493	99.1	0.892	37,163,358	10.50	4.89	15.39	31.77%	11,806,799
1990	53,834,118	98.2	0.900	48,460,089	9.50	4.98	14.48	34.39%	16,665,425
1991	54,557,795	99.6	0.888	48,439,803	8.50	5.10	13.60	37.50%	18,164,926
1992	51,192,730	94.7	0.933	47,779,075	7.50	5.24	12.74	41.13%	19,651,533
1993	44,952,094	91.2	0.969	43,571,075	6.50	5.38	11.88	45.29%	19,733,340

U S West Communications - Arizona
Reproduction Cost New Less Depreciation
Telephone Plant in Service as of December 31, 1999

Plant Account:	Circuit Digital
Plant Sub-Account:	Circuit Digital
Index Number:	2232
Field Code:	CRD
Survivor Curve:	O2
Average Service Life:	10

Year of Placing	Original Cost as of 12/31/99	Telephone Plant Index	Telephone Plant Translator	Reproduction Cost New	Age as of 12/31/99	Life Expectancy (Average Remaining Life) 12/31/99	Probable Service Life	Condition Percent	Reproduction Cost New Less Depreciation
A	B	C	D	E=B*D	F	G	H=F+G	I=(H-F)/H	J=E*I
1994	62,727,461	88.8	0.996	62,446,508	5.50	5.51	11.01	50.05%	31,254,477
1995	80,249,683	86.2	1.026	82,322,587	4.50	5.60	10.10	55.45%	45,647,875
1996	121,882,842	86.9	1.017	123,986,689	3.50	5.63	9.13	61.66%	76,450,192
1997	81,098,786	84.5	1.046	84,841,807	2.50	5.56	8.06	68.98%	58,523,878
1998	123,445,446	88.1	1.003	123,865,805	1.50	5.30	6.80	77.94%	96,541,008
1999	140,227,026	88.4	1.000	140,227,026	0.50	4.59	5.09	90.18%	126,456,732
	1,128,054,861		0.982	1,107,763,931				52.90%	586,004,003

Notes:
Columns B, C, D, and E are from USWC's filing, these columns have not been certified by William Dunkel.

TABLE 2 FROM USWC EXHIBIT NHH-1, SUPPLEMENTAL TESTIMONY OF NANCY HELLER-HUGHES, WITH PERCENT CONDITION CORRECTED

US WEST COMMUNICATIONS, INC.

REPRODUCTION COST NEW LESS DEPRECIATION
VINTAGE PLANT

As of December 31, 1999

Account	Description	Original Cost 12/31/99	Telephone Plant Translator	Reproduction Cost New	Condition Percent	Reproduction Cost New Less Depreciation
		A	B	C	D	E
2112	Motor Vehicles	$67,008,716	1.079	$72,326,913	38.2%	$27,623,678
2114	Special Purpose Vehicles	25,794	1.219	31,447	28.2%	8,863
2115	Garage Work Equip	1,356,323	1.239	1,680,681	53.3%	895,506
2116	Other Work Equip	22,416,411	1.168	26,177,888	45.0%	11,773,969
2121	Buildings	162,763,559	2.059	335,131,472	51.8%	173,760,612
2122	Furniture	1,703,616	1.122	1,910,709	57.1%	1,090,371
2123	Company Comm Equip	6,944,455	0.957	6,646,073	29.2%	1,940,726
2124	Gen Purpose Computer	112,016,697	0.469	52,564,359	45.2%	23,767,388
2211	Analog SW Equip	138,599,056	1.206	167,207,907	19.9%	33,276,899
2212	Digital SW Equip	819,225,291	0.987	808,935,651	53.2%	430,156,707
2220	Operator Systems	7,080,061	1.021	7,228,640	46.9%	3,387,638
2231	Radio Systems	35,323,150	1.016	35,891,456	34.3%	12,297,503
2232	Circuit Equip	1,185,447,017	0.993	1,177,608,648	51.1%	601,620,960
2362	Other Term Equip	48,461,067	1.061	51,412,073	56.2%	28,899,178
2411	Pole Lines	46,616,809	4.341	202,360,271	41.8%	84,506,657
2421	Aerial Cable	170,704,495	1.723	294,160,265	23.5%	69,085,320
2422	Underground Cable	435,295,207	1.218	530,303,739	25.4%	134,877,931
2423	Buried Cable	1,273,669,392	1.352	1,722,089,520	33.3%	572,694,705
2424	Sub Cable	2,572	1.256	3,232	0.0%	0
2426	Intra Bldg Cable	41,603,544	1.825	75,914,620	23.7%	17,970,027
2431	Aerial Wire	8,798,956	1.346	11,843,641	40.0%	4,732,011
2441	Conduit Systems	305,067,487	2.216	676,048,139	46.5%	314,118,808
	Total Vintage Plant	$4,890,129,675		$6,257,477,341		$2,548,485,457

Notes:
Columns A, B, and C are from USWC's filing, these columns have not been certified by William Dunkel.
These are from Exhibit NHH-1, Supplemental Exhibit of Nancy Heller-Hughes, page 8.

CORRECTION OF THE "PERCENT CONDITION" FOR "VINTAGE PLANT"

A. As calculated by USWC[1]	$6,257,477,341	$2,769,795,340	$3,487,682,001
B. "Percent Condition" Corrected[2]	$6,257,477,341	$3,709,011,884	$2,548,485,457
Difference in RCNLD			($939,196,544)
Intrastate Separations Factor[3]			x .7230
Intrastate Difference			($679,039,101)
Weighting in "Fair Value"			x 50%
Adjustment to the "Fair Value Rate Base" As calculated by USWC			($339,519,551)

[1] Pages 7 and 8, Exhibit NHH-1, Supplemental Testimony of Nancy Heller-Hughes.
[2] Revised "Table 2"-Schedule WDA-14.
[3] USWC Worksheet B, provided in response to Request UTI 58-2.

EXHIBIT
S-11
Admitted

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION	)	
OF US WEST COMMUNICATIONS, INC. A	)	
COLORADO CORPORATION, FOR A	)	
HEARING TO DETERMINE THE EARNINGS	)	DOCKET NO. T-01051B-99-0105
OF THE COMPANY FOR RATEMAKING	)	
PURPOSES, TO FIX A JUST AND	)	
REASONABLE RATE OF RETURN THEREON	)	
AND TO APPROVE RATE SCHEDULES	)	

SURREBUTTAL TESTIMONY AND SCHEDULES

OF

WILLIAM DUNKEL

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

SEPTEMBER, 2000

NOTICE: INFORMATION CLAIMED TO BE PROPRIETARY BY QWEST HAS BEEN DELETED FROM THIS TESTIMONY. THROUGHOUT THIS TESTIMONY, PROPRIETARY INFORMATION IS DESIGNATED AS FOLLOWS: **PROPRIETARY**

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WILLIAM DUNKEL
DOCKET NO. T-01051B-99-0105

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EXECUTIVE SUMMARY

Modernization Accountability Credit and Depreciation Issues

Below is a brief summary of some of the issues I address in this testimony with respect to Qwest's Rebuttal to my Direct Testimony of the Modernization Accountability Credit and other depreciation issues:

1. In the Depreciation proceeding, the Commissioners were interested in assuring in this case that Qwest would actually make the modernizations that were assumed in the depreciation rates the Commission approved for Qwest. Those depreciation rates were calculated assuming a very high rate of future modernization by Qwest in Arizona. When the rates from this case go into effect, customers will be paying approximately $10 per line per month for intrastate depreciation expense. In his Rebuttal, Qwest's witness Mr. Wu proposes that Qwest should not be held accountable to actually make the modernizations that the Commission expects them to make. Mr. Wu's proposal is unacceptable and should be rejected. I recommend the Commission adopt the Modernization Accountability Credit presented in my Direct Depreciation testimony to properly hold Qwest accountable to make the modernizations that this Commission incorporated in the approved depreciation parameters.

2. In his Rebuttal, Mr. Wu claims that future retirements are not used in the calculation of depreciation rates, which is false. Future retirements are used to calculate the "remaining life" (life which remains until retirement), which is a key part of the depreciation calculation.

3. Mr. Wu's claim that the percent of the pairs in the metallic cables that is actually being used is declining is false. ARMIS data shows the number of metallic pairs working, and the percent working is increasing.

4. Mr. Wu's claim that proper depreciation rates should be calculated over a life that is shorter than the "service life" violates the applicable ACC and USOA depreciation standards.

5. Mr. Wu proposes to arbitrarily assign all of the recovery of a large reserve deficiency for Analog Switching to just a one year period. This proposal is arbitrary, inappropriate, and overstates the claimed expense during that one year period, when these costs were not actually all incurred in that one year period. A much more appropriate method of recovering this unusually large reserve deficiency would be to amortize these costs over a several year period. An $18,000,000 per year amortization will amortize the deficiency over approximately three years. This is a commonly accepted recovery procedure, and

spreads the burden of recovery more evenly over a period longer than just one year.

6. Mr. Wu's Rebuttal to my Direct testimony raised certain issues pertaining to how I "rounded" certain numbers and how I "composited" certain accounts. These issues make very little difference in the calculation of the depreciation accruals. However, in this testimony I resolve Mr. Wu's concerns by adopting Mr. Wu's preferred "rounding" and "compositing" methods, therefore these are no longer items of dispute between Staff and Qwest.

7. For the Company Communications Equipment account, the depreciation rates that Mr. Wu proposes in his Direct and Rebuttal testimonies, were not calculated using the Commission approved "projection life" parameters. The depreciation rate that Qwest is currently booking also does not apply the Commission-approved "projection life" parameter to this Account.

8. I recommend that the depreciation rates and amortization shown on Schedule WDA-25 be adopted. These rates are proper, are calculated by applying the Commission-approved depreciation parameters to the test year (12/31/99) reserve and investment "per book" figures. For Analog Switching Equipment, this proposal includes a reasonable amortization of the deficiency of $18 million per year, which will amortize the deficiency over an approximate three year period.

Rate Design

Below is a brief summary of some of the issues I address in this testimony with respect to Qwest's Rebuttal to my Direct Testimony on Rate design issues:

1. Qwest's witness Dr. Taylor presents a number of flawed arguments in an attempt to convince the Commission that the loop costs are direct costs caused solely by the provision of basic exchange service, not shared facilities as I testified in my Direct Testimony. However, Dr. Taylor's failure to properly identify the loop costs are shared facilities stems from a mis-application of TSLRIC principles dues to his apparent failure to recognize how the telecommunications network is engineered. The telecommunications network is engineered such that a whole family of services depends upon and is supported by the loop facilities. Without the loop facilities, the provision of toll, switched access, vertical services and basic exchange service would not be physically possible. Since all of these services require the loop facilities, it is an undeniable physical and engineering fact that the loop is a facility that is shared by a whole family of services, not just one of the services that is supported by the loop facilities.

2. In another state, Dr. Taylor specifically admitted that a loop facility would be required to provide toll service, even if basic exchange service were not provided. Therefore, Dr. Taylor is unable to support his claim that the loop costs are caused solely by basic exchange service.

3. Dr. Taylor refers to "economics literature" that Dr. Taylor claims discredits my view of the loop as a shared facility. However, The "economics literature" that Dr. Taylor refers to were two articles that were authored by Dr. Taylor or other individuals who are well known for their work as witnesses who testify of behalf of telephone companies. All authors of the two articles he referenced are currently or were associated with Dr. Taylor's firm. In contrast, I have supported my view of the loop facilities as shared facilities, by citing numerous regulatory authorities, including the Supreme Court, the FCC, the Joint Board, the orders of the commissions in a number of other states and NARUC.

4. In yet another flawed attempt to justify his position, Dr. Taylor alleges that long distance carriers (IXCs) get to use the loop facilities owned by the LECs for free, therefore the IXCs are able to provide toll service and avoid the cost of the loops. However, Dr. Taylor's claim is not true. Dr. Taylor fails to recognize the fact that the IXCs must pay Qwest for sharing the common lines (loops) that Qwest owns when the IXCs pay Qwest an intrastate Carrier Common Line Charge (CCLC) to share the loop facilities owned by Qwest. The CCLC is the switched access charge by which Qwest recovers a portion of the loop facilities costs from the IXCs.

5. Dr. Taylor argues that since the loop facilities are non-traffic sensitive, this somehow means that basic exchange service must recover all of the loop facility costs. However, even if the loop facilities costs are non-traffic sensitive, this does not in any way implicate basic exchange service as the sole cause of the loop facility costs. "Fixed" charges could be billed to IXCs just as easily as to end users. The "fixed" costs are a part of almost any business, just like "rent" might be considered a "fixed" cost of a fast food restaurant.

6. When calculating the costs of intrastate services, Mr. Thompson proposes to ignore the fact that 25% of the loop facilities costs are allocated to the interstate jurisdiction and recovered in intrastate rates. However, if Mr. Thompson's proposal were adopted, and rates for intrastate services were based upon the unseparated costs, the result would be a double recovery of the interstate portion of the loop facility costs. This inappropriate proposal should be rejected.

7. In my Direct, I testified that special access bypass of switched access was economical for only high users. In his Rebuttal to this testimony, Mr. McIntyre's provided an invalid analysis that fails to consider that those customers subscribing to a special access line would pay toll charges in addition to the charge for the special access line.

8. In his Rebuttal, Mr. Thompson attempted to downplay the significance of the numerous State Commission Orders that I referenced that specifically found the loop to be a shared facility, by pointing out that most of these orders were issued

prior to the TA96. However, one of the Commission orders I referenced was that of the Indiana Utility Regulatory Commission (IURC), which is dated October 28, 1998. Not surprisingly, Mr. Thompson fails to mention that this Order specifically dealt with the TA96, and specifically found that assigning 100% of the loop cost to one service would violate Section 254(k) of TA96.

9. Dr. Taylor recommends that markups above TSLRIC for services should be determined using "Ramsey Pricing" principles. However, this form of pricing has been regularly rejected by regulatory authorities. Ramsey pricing means charging more where the company has monopoly power and less where it does not. This is an abuse of monopoly power. One of the primary reasons regulation of monopoly services exists is to prevent the companies from abusing that monopoly power. This proposal should be rejected.

10. In his Rebuttal, Mr. Teitzel's claimed that Qwest's proposed "competitive zone" is consistent with the Commission's Rules, however it is not. The information that the Commission's rules require would not be required to classify a wire center as a "competitive zone." Under Qwest's proposal, Qwest would not be required to show any indications of market power, provide the estimated market share, provide a description of the general economic conditions in the relevant market that make the service competitive, or provide most of the other information that are properly required by the current Commission rules in order to determine if effective competition exists.

11. Mr. Teitzel's Rebuttal provides an example that purportedly shows "extremely more prevalent" competition in the Chandler-Main wire center than in the Bisbee wire center. However, it does not. Mr. Teitzel's example merely demonstrates that there is a tiny amount of resale competition in both of these two wire centers at this time.

12. In its Rebuttal, Qwest is claiming that it has price flexibility in Oregon. However, in Oregon, rates for competitive zone services cannot be higher than the rates that were in effect when the competitive zones were established, unless authorized by the Commission. In Arizona, Qwest generally proposes that the ceiling be double the existing rate.

13. In his Rebuttal, Mr. Teitzel claims that Qwest will continue to adhere to the Commission's rules for pricing competitive services if the "competitive zone" proposal is adopted. However, the Qwest "competitive zone" proposal would allow Qwest to price competitive services below the TSLRIC of providing the service, which is contrary to the ACC's competitive service pricing rule.

14. Qwest's Rebuttal attempts to address concern surrounding the Qwest proposal to establish maximum rates in "competitive zones" at "double" the current rates by pledging that it is not Qwest's "intention" to double the rates. However, if the understanding is that Qwest does not "intend" to double the rates, then the logical

way to assure that intention is followed is to set the rules so that they cannot double the rates.

15. Dr. Taylor responded to my direct testimony pertaining to the HHI by providing a specific example of the HHI for the interstate toll market when AT&T was declared a non-dominant carrier by the FCC. Thanks to the estimate provided by Dr. Taylor, we now know that the market concentration in the wire centers which Qwest proposes be immediately declared as "competitive zones" is nearly ** ** the market concentration in the interstate long distance market when the FCC declared AT&T as a non-dominant carrier.

16. Mr. Teitzel claimed that competitors would be driven away from rural areas unless the Zone Increment Charges are increased in response to UNE loop rate de-averaging. However, his arguments are based on the faulty premise that the loop cost (as identified by the UNE loop rates) is directly a cost of only basic exchange service. In reality, the UNE loop costs are not directly related to just the basic exchange service rates, but are related to the entire family of services that share the loop facilities. In addition, rural customers generally have a more limited local calling area than do urban customers, and therefore pay toll rates for calls which an urban customer pays local rates. Since competitors have the opportunity to receive higher toll/switched access revenues for rural customers compared to urban customers, this offsets part of a higher UNE loop rate in rural areas.

17. Mr. Teitzel claims that I stated that Qwest can expect an increase in toll revenues as a result of its proposed toll rate reductions. However, this is not my testimony in this proceeding. My testimony simply pointed out the inconsistency between Qwest's claim and Qwest's revenue impact calculation. Qwest claims that it will be better off in the market if it reduces toll rates, because the lower rates would be more attractive to customers. However, Qwest's revenue impact calculation assumes it would be worse off if toll rates are reduced, because the revenue impact calculation shows a net revenue reduction, as a result of reducing the toll rates. Qwest has the ability to change its toll prices itself, since the Commission has designated toll as a "competitive" service. (a) If the Company chooses to keep the current rates, that is their choice. In that event, no revenue support should be extracted from the rates of other services. (b) If Qwest chooses to reduce its rates, that is an executive decision. If that is a good decision and enough customers are attracted by the lower rates to offset the lower rates, then no revenues need to be recovered from other customers. On the other hand, if that is a poor executive decision which results in a net reduction in the Company's toll revenues, then the customers of other services are not responsible for a poor executive decision. Under the "competitive" pricing flexibility that has been given the Company, rates for other services should not be increased in order to support changes in "competitive" prices.

18. In my Direct testimony, I indicated that Qwest had miscalculated the revenue impact for Directory Assistance. In his Rebuttal, Mr. Teitzel claims that this calculation is not in error. However, in this testimony, I demonstrate that in its Directory Assistance revenue impact calculation, Qwest mishandled the effect of the temporary surcharge. In effect, Qwest calculated a revenue impact of going from a 59 cent Directory Assistance charge (with a one call allowance), to an 85 cent charge (with no call allowance). However, the revenue impact of the current proposal is higher, because the current proposal is to go from the current 47 cent Directory Assistance charge (with a one call allowance), to an 85 cent charge (with no call allowance).

19. Mr. Teitzel argues that the Qwest proposal to increase privacy listings rates because these services are "discretionary". However, since the customers of these services are sometimes victims of harassment, these customers are actually in a captive market, where they must pay whatever rates Qwest charges them in order to maintain their safety.

I. INTRODUCTION

Q. ARE YOU THE SAME WILLIAM DUNKEL WHO PREVIOUSLY PREFILED TESTIMONY IN THIS PROCEEDING?

A. Yes.[1]

Q. WHAT IS THE PRIMARY PURPOSE OF THIS REBUTTAL TESTIMONY?

A. The primary purpose of this Rebuttal testimony is to respond to the Rebuttal testimonies of Qwest[2] filed on or about August 21, 2000, and the Direct testimonies of parties who filed their testimonies on or about July 25, 2000 through August 9, 2000.

II. RESPONSE TO MR. WU

A. MODERNIZATION ACCOUNTABILITY CREDIT

Q. SHOULD QWEST BE HELD ACCOUNTABLE FOR THE MODERNIZATION THAT IS ASSUMED IN THE ACC APPROVED DEPRECIATION PARAMETERS?

A. Yes. Discussions during the Open Meeting on this issue supported this proposition.[3] Customers will be paying almost $10 per month per line to Qwest to cover the calculated intrastate depreciation expense. The depreciation expense is so high only because the depreciation

[1] Throughout this testimony, my "Direct testimony on Modernization, Depreciation, and RCNLD Issues" will be referred to as my Direct Depreciation testimony. My "Direct Testimony on Rate Design Issues" will be referred to as my Direct Rate Design testimony.
[2] Throughout this testimony, the names "Qwest" and "USWC" are used interchangeably.
[3] Tr. 46-47, 52, April 25, 2000 Open Meeting.

parameters adopted by the ACC assume a very rapid rate of future modernization by Qwest. Under Mr. Wu's proposal, the Company would receive that $10 per month per line from the customers that was based on specific future replacement expectations, but Qwest would in no way be accountable for actually delivering the future modernization that was assumed in the calculation of those depreciation rates. Mr. Wu's proposal is clearly unbalanced.

It would not be fair to the customers to allow Qwest to collect $324 million per year[4] from them based on specific expected future equipment replacements by Qwest, without assuring those expected replacements actually occurred. Qwest wants to take the money, but not be responsible to make the expected replacements.

Q. HOW DID MR. WU RESPOND TO YOUR PROPOSED MODERNIZATION CREDIT?

A. Mr. Wu stated:

> There is no need for another program to address the adequacy of modernization.[5]

Mr. Wu argues that Qwest should not be accountable to actually implement the modernization that was assumed in the ACC approved depreciation parameters.

Q. WOULD MR. WU'S PROPOSAL HARM THE ARIZONA ECONOMY?

A. Yes. Using the ACC approved depreciation parameters, Qwest will be collecting almost $10 per line per month from customers to cover the intrastate depreciation expense. This is $324 million

[4] Column N of Schedule WDA-25.
[5] Page 11, Lines 6-7, Wu Rebuttal.

per year.[6] If Qwest takes the money from the Arizona customers, but does not make the expected modernizations in Arizona, that will harm the Arizona economy. When Qwest collects this $10 per month per line from the customers, that takes the money out of circulation in Arizona. The customers cannot spend that $10 for other services or goods in Arizona. If Qwest collects the money in Arizona and then diverts it to other states, that will harm the Arizona economy. Only if Qwest makes the expected replacements in Arizona will that money remain in Arizona.[7]

The Commission should reject Mr. Wu's position that Qwest should not be accountable for making the expected replacements in Arizona that are incorporated in the Commission-approved depreciation rates.

Q. MR. WU STATES THAT THE MODERNIZATION REQUIREMENTS INCORPORATED IN THE QWEST AND USWC MERGER SHOULD BE SUFFICIENT.[8] DO THE MODERNIZATION REQUIREMENTS INCORPORTAED IN THE MERGER REFLECT THE ACCELERATED MODERNIZATION THAT WAS ASSUMED IN THE DEPRECIATION PROCEEDING?

A. Absolutely not. The merger agreement required Qwest to only invest in the years 2000 and 2001 at a level equal to the historic investment levels.

[6] Column N of Schedule WDA-25.
[7] Hopefully, along with some new money from shareholders. There is no requirement that the amount spent for new equipment equal the investment retired. With inflation and other effects, that frequently may not be the case.
[8] Page 11, lines 1-7, Wu Rebuttal.

> We can see no reason why applicant would not be willing to commit to an investment level for the years 2000 and 2001 at least at the amount of the historic average of $402 billion.[9]

The modernization requirement incorporated in the merger agreement did not anticipate any accelerated modernization, but simply required that for the next two years, the modernization continue at a level similar to what had occurred in the past.

The Commission-approved depreciation parameters assume much more rapid modernization will occur in the future than has been occurring in the past by Qwest in Arizona. This accelerated modernization is not reflected in the merger agreement, as previously discussed.

B. FUTURE RETIREMENTS ARE USED TO CALCULATE THE CURRENT DEPRECIATION RATES

Q. IN THE CALCULATION OF THE DEPRECIATION EXPENSE, MR. WU STATES,

> When retirements ultimately occur is not significant in this analysis.[10]

ARE FUTURE EXPECTED RETIREMENTS SIGNIFICANTLY USED IN CALCULATING THE DEPRECIATION RATES?

A. Yes. Mr. Wu either misunderstands or has misstated one of the basic factors that is used to calculate depreciation rates. A specific future expected retirement pattern is incorporated in calculating depreciation rates. Based upon those future retirement assumptions, an average "remaining life" is calculated. The average remaining life is the average number of years which

[9] Page 13, ACC Decision 62672. The ACC did require that a specific portion of this be directed to upgrade rural exchanges.

[10] Mr. Wu's response to Request WDA 34-005. Similar statements also appear on pages 6 and 7 of Mr. Wu's Rebuttal.

remain before the existing investments are expected to retire. This "remaining life" is one of the factors that is directly used in the calculation of the depreciation rate, as is shown below:

$$\text{Remaining Life Rate (\%)} = \frac{(100\% - \text{present depreciation reserve \%} - \text{Future net salvage\%})}{\text{Remaining Life (Years)}}$$

The "remaining life" is how many years are left before the investments retire.

Mr. Wu's claim that when the retirements are expected to occur is not "significant in this analysis", is simply a misrepresentation of the basic principles of calculating depreciation rates.

Q. DO THE DEPRECIATION PARAMETERS THAT THE COMMISSION ADOPTED IN THE DEPRECIATION PROCEEDING INCLUDE A SPECIFIC PROJECTION OF FUTURE RETIREMENTS?

A. Yes. For example, attached as Schedule WDA-25 is the projection life table that was used in the calculation of the remaining life for Aerial Cable-Metallic, Account 2421. As can be seen, Column C includes specific different amounts of retirement each year. Achieving the ACC selected projection life and curve shape which are shown at the top of that page requires that specific retirement pattern. Column H calculates the ELG average remaining life for each vintage. That calculation is directly based upon the future expected retirements that are shown in Column C. The retirement pattern and remaining life by vintage shown on this sheet are used to calculate any remaining life that uses the listed projection life and curve shape. This same retirement pattern was used in calculating the depreciation lives based on 1/1/97 investments, and the same pattern was also used in calculating the depreciation rates based on 12/31/99 investments. The average remaining life that is used in the depreciation calculation is calculated

by applying the remaining life from the above-referenced Column H to the dollar amount of investment that exists for each age.

Q. CAN YOU DEMONSTRATE THAT THE AVERAGE REMAINING LIVES THAT MR. WU HAS CALCULATED ARE IN FACT BASED UPON THE CALCULATIONS THAT INCORPORATE A SPECIFIC ASSUMED FUTURE RETIREMENT PATTERN?

A. Yes. On Rebuttal Exhibit KDW-2, Mr. Wu calculates a depreciation rate using a remaining life of 5.1 years for this Account. Page 4 of Schedule WDA-26 contains a discovery response which shows the calculation of the 5.1 years remaining life that Mr. Wu used.[11] As can be seen on page 3, Column E of that Schedule, the remaining life that is being used for each vintage in this calculation is the exact same remaining lives that came from Column H of Schedule WDA-25. As previously discussed, those remaining lives are based upon a specific anticipated retirement patterns for each year in the future.

Mr. Wu's claim that the future retirements are not incorporated in the depreciation parameters and expense calculated is simply incorrect. As shown on Schedules WDA-25 and WDA-26, the calculation of that remaining life involves a specific projection of how much investment will retire each year in the future.

[11] I added the box to this figure on this Schedule for emphasis.

Q. MR. WU ALLEGES THAT "AN ASSET SHOULD BE FULLY DEPRECIATED PRIOR TO ITS PHYSICAL RETIREMENT."[12] (EMPHASIS ADDED) IS THAT THE PROPER DEPRECIATION STANDARD?

A. No. The requirements that apply to this proceeding are that the depreciation rates should be designed so that the asset is fully depreciated at the time of its retirement. To intentionally design the rates so that the investment would be fully depreciated significantly before or after the time of its expected retirement is to miscalculate the depreciation rates.

The depreciation definition and requirements set forth in Section R14-2-02 "Treatment of Depreciation" for Fixed Utilities of the Arizona Administrative Code apply. The ACC has also adopted the Uniform System of Accounts (USOA) for Telecommunications Companies (FCC Part 32, 47 CFR, Ch. 1) apply. The Arizona Administrative Code and the USOA specifically require that the depreciation expense be distributed "in a rational and systematic manner", or on a "straight-line method" over the "service life." The "service life" is the life from the time the investment is placed in "plant in service" to the time it is retired from service and the books of the company.[13]

The Arizona Administrative Code, Section R-14-2-102(A)(3) states:

> 'Depreciation' means an accounting process that will permit the recovery of the original cost of an asset less its net salvage over the service life. (emphasis added)

Section R14-2-102(B)(3) requires:

[12] Page 10, line 11, Wu Rebuttal.

[13] In "remaining life" depreciation, the average life remaining until the investment is expected to be retired from the books (endings its "service life") is utilized.

> The cost of depreciable plant adjusted for net salvage shall be distributed in a rational and systematic manner over the estimated service life of such plant. (Emphasis added)

Section R14-2-102(A)(9) states:

> 'Service life' means the period between the date an asset is first devoted to public service and the date of its retirement from service. (Emphasis added)

The USOA requires that depreciation expense be calculated using the "straight line method" over the "service life."

Under "Depreciation Accounting", the USOA requires that:

> ...the loss in service value of the property ...be... distributed under the straight-line method during the service life of the property." (Emphasis added, §32.2000(g)(1))

That service life ends when the investment is "withdrawn from service". (USOA Part 32.2000(d))

The required "straight-line method" means:

> The **straight line** method distributes the cost of property in equal annual amounts, as nearly as is practicable, over its life. This includes the "average service life" and "remaining life" procedures.[14]

Mr. Wu's claim that proper depreciation rates should be calculated over a life that is shorter than the "service life" violates the applicable depreciation standards.

Q. MR. WU CLAIMS THAT MONITORING THE RETIREMENTS IS NOT A WAY OF MONITORING THE ACTUAL LEVEL OF "MODERNIZATION."[15] IS THAT A VALID ARGUMENT?

1 A. No. Modernization is the replacement of existing equipment with new equipment. Such
2 replacement involves the retirement of existing equipment. Therefore, this is a valid way to
3 monitor modernization. In his Rebuttal, Mr. Wu acknowledges that the Company must invest in
4 new equipment in order to retire the existing equipment.[16]
5
6 As previously discussed, the depreciation calculations assume a specific pattern of future
7 retirements. Therefore, Qwest's retirement performance can be compared to what was
8 specifically expected when calculating the depreciation parameters. However, the depreciation
9 calculations do not assume a specific dollar amount of future new investments. Therefore, new
10 investments are not a standard that can be used to determine whether or not Qwest is complying
11 with what was expected when the depreciation parameters were set.
12
13 In addition, it would not be appropriate to require a certain dollar amount of new investment,
14 because that might encourage the Company to "gold plate" new investments
15
16 Q. MR. WU STATES,
17 Let's assume fiber was placed next to a working 100 pair copper cable. As customers are
18 migrated from copper to fiber, there are fewer and fewer working pairs operating over the
19 copper.[17]
20
21 IS THIS "DECLINING USAGE" CLAIM TRUE?
22 A. No. The number of metallic pairs working in 1999 was the highest of any year in history. As

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[14] Public Utility Depreciation Practices, page 17, Compiled and Edited by Staff Subcommittee on Depreciation of the NARUC Finance and Technology Committee of the National Association of Regulatory Utility Commissioners.
[15] Page 7, Wu Rebuttal.
[16] Page 7, Wu Rebuttal.
[17] Page 10, lines 15-17, Wu Rebuttal.

shown on Schedule WDA-27, ARMIS data shows that in 1990, Qwest in Arizona had 1.9 million metallic pairs working. In 1999, it had 2.6 million metallic pairs working in Arizona. Therefore, the basis for Mr. Wu's "declining usage" claim is simply false.[18] In addition, a higher percent of the available metallic cable pairs are in use now, than in 1990. In 1990, 59% of Qwest's copper pairs in Arizona were "working." In 1999, over 67% of Qwest's copper pairs in Arizona were "working", as is shown on Schedule WDA-27.

Q. DID MR. WU MISSTATE YOUR POSITION?

A. Yes. Mr. Wu states,

> First, Mr. Dunkel recommends that Qwest's retirements of assets be monitored and that Qwest customers be credited if retirements do not equal the depreciation expense Qwest books each year.[19]

This is a misstatement of my testimony. In discovery, Staff asked Mr. Wu to provide a citation to my testimony that supported his characterization of my position. Mr. Wu was unable to do so.[20] What I actually proposed was:

> I propose that each year the actual retirements that USWC makes in Arizona be compared to the expected retirements that were incorporated in the approved depreciation lives."[21]

In several other instances, Mr. Wu again misconstrues my testimony. For example, he broadly asserts that "ratepayers pay rates for the use of assets that have already placed into service"[22], implying that my testimony is inconsistent with this broad statement. This statement does not

[18] Information from the Depreciation case clearly demonstrates that the majority of the copper cable is used in the "distribution" portion of the network.
[19] Page 6, lines 9-12, Wu Rebuttal.
[20] Qwest response to Request WDA 34-005.
[21] Page 8, lines 20-22, Dunkel Depreciation Direct.
[22] Page 6, lines19-20, Wu Rebuttal.

1 conflict with anything in my testimony. The remaining lives used in my calculations are the
2 remaining lives of the investment that was "already placed in service" by the end of the test year.
3
4 Q. WHAT DO YOU RECOMMEND ON THIS ISSUE?
5 A. In the Depreciation proceeding, the Commissioners were interested in assuring in this case that
6 Qwest would actually make the modernizations that were assumed in the depreciation rates.[23]
7 Those depreciation rates were calculated assuming a very high rate of future modernization by
8 Qwest in Arizona. When the rates from this case go into effect, customers will be paying
9 approximately $10 per line per month for intrastate depreciation expense. Mr. Wu's proposal
10 that Qwest not be accountable to actually make the modernizations that the Commission
11 approved depreciation parameters expected them to make (and which Arizona customers will be
12 paying for in their rates), should be rejected.
13
14 I recommend the Commission adopt the Modernization Accountability Credit presented in my
15 Direct Depreciation testimony. Mr. Wu's claim that retirements are not used in the calculation of
16 depreciation rates is simply false. His claim that the number of pairs in the metallic cables that
17 are actually being used is declining is also false.
18
19 **C. TEST YEAR DEPRECIATION EXPENSE**
20
21 Q. IN YOUR DIRECT TESTIMONY, YOU DEMONSTRATED THAT MR. WU HAD USED
22 THE 1/1/97 RESERVE PERCENT IN CALCULATING WHAT HE PRESENTED AS THE

[23] Tr. 46-47 and 52, April 25, 2000 Open Meeting.

CHANGE IN THE TEST YEAR DEPRECIATION EXPENSE. YOU PROPOSED THAT INSTEAD THE TEST YEAR DEPRECIATION EXPENSE SHOULD BE CALCULATED BY APPLYING THE ACC APPROVED PARAMETERS TO THE TEST YEAR 12/31/99 BOOK RESERVE AND INVESTMENT FIGURES. HOW DID MR. WU RESPOND TO THAT ISSUE?

A. Mr. Wu provided a new schedule on which he did correct the above-referenced error. Rebuttal Exhibits KDW-1 and Exhibit KDW-2 do show the depreciation rates that Mr. Wu has calculated by applying the ACC approved depreciation parameters to the 12/31/99 "per book" investments and reserves. For the majority of these accounts, the depreciation rates that Mr. Wu has now calculated are identical to the depreciation rates that I had calculated based upon the updated test year. This can be seen by comparing Column L of Schedule WDA-6, page 1 attached to my Direct Depreciation testimony to Column E of Rebuttal Exhibit KDW-1.

However, his revised schedule contains a new problem. The major difference between Mr. Wu's Rebuttal Exhibits KDW-1 and KDW-2 calculation and my Schedule WDA-6 calculation, is in the treatment of the Analog Switching Equipment account. In his Rebuttal testimony, Mr. Wu's annual depreciation accrual for this Account is $63 million,[24] which is $45 million more than his original proposal for this Account.

[24] Rebuttal Exhibit KDW-1, Column E.

D. MR. WU DID NOT USE THE ACC APPROVED DEPRECIATION PARAMETERS FOR THE ANALOG SWITCHING OR COMPANY COMMUNICATIONS ACCOUNTS

Q. WERE THE DEPRECIATION RATE AND EXPENSE THAT MR. WU INCLUDES IN HIS REBUTTAL EXHIBITS KDW-1 AND KDW-2 CALCULATED BASED UPON THE COMMISSION APPROVED PARAMETERS FOR THE ANALOG SWITCHING EQUIPMENT ACCOUNT?

A. No. The Commission approved average year of final retirement for this Account is 2000.0, as Mr. Wu was well aware. If you look at Mr. Wu's Direct testimony, Exhibit KDW-1, page 6, you will see that Mr. Wu was aware that the Commission approved average year of final retirement for this Account is 2000.0.

However, in his new calculation, Mr. Wu did not use 2000.0. Instead, Mr. Wu created his own average year of final retirement of 2000.5, and that is what he used in his rebuttal calculations for the Analog Switching Equipment account.

Attached as Schedule WDA-28 is a copy of the Qwest provided workpaper which supports Mr. Wu's Rebuttal Exhibits KDW-1 and KDW-2 for Analog Switching Equipment.[25] As can be seen near the top of page 4 of this Schedule, Mr. Wu used an average year of final retirement (AYFR) of 2000.5.[26] That is not the Commission approved AYFR.

[25] The attached Schedule shows the workpapers for the Analog Switching Equipment account. The response also contained workpapers for other accounts, as well.
[26] I added the box around that figure for emphasis.

1 Q. WHAT IS OCCURRING IN THE ANALOG SWITCHING ACCOUNT THAT IS DIFFERENT
2 FROM ANY OTHER ACCOUNT?
3 A. This account is a dying account. By the time this case goes to the Commission, there will be no
4 investments in this account. The last switch in this Account is scheduled to retire in October,
5 2000, only one month from now.[27]
6
7 In addition, the Company's retirement schedule is now different than had been filed in the
8 Depreciation case. Among other factors, this different retirement schedule will result in some of
9 the investments in this Account not being fully depreciated by the time the last investments in the
10 Account are retired. According to the Company's new schedule, the last investment in this
11 Account will retire in October, 2000.[28] The retirement schedule that was utilized in the
12 Depreciation proceeding, did not project that the last investment in this Account would retire
13 until the year 2004.[29] Since the last retirement in this Account has been moved forward by four
14 years, there is now less remaining life over which to depreciate the investment, which will result
15 in a deficiency occurring. The question is how to treat that deficiency.
16
17 Q. WHAT DOES MR. WU'S PROPOSAL FOR THE ANALOG SWITCHING ACCOUNT
18 EFFECTIVELY DO?
19 A. The undepreciated intrastate investment in this Account at the end of 1999 was $63,170,000.
20 This is calculated as follows:
21

[27] Qwest response to Request WDA 34-018.
[28] Qwest response to Request WDA 34-018.
[29] Page 9, Qwest's 1997 State Depreciation Rate Study-Arizona, Analog Switching Equipment Account 2211, Docket No. T-01051B-97-0689.

12/31/99 investment	$110,824(000) (Rebuttal Exhibit KDW-1, Column A)
12/31/99 reserve[30]	- 47,654(000)
Undepreciated investment	$ 63,170(000)

As can be seen from Rebuttal Exhibit KDW-1, $63,170(000) is the depreciation accrual for this Account that Mr. Wu proposes to be recovered in one year. Mr. Wu has adjusted the AYFR figure so as to effectively propose recovering the full undepreciated amounts that remain in this Account as of 12/31/99 over only a one year period. Of course, the one year period for which Mr. Wu proposes to make this huge recovery is the one year that the Company would use to calculate the "typical" depreciation expense to be incorporated in the customers' rates. Those customers' rates will be in effect for many years into the future, and it would be unfair to build in this sort of huge expense when it is not at all representative of normal expense levels.

Q. WHAT TREATMENT DO YOU RECOMMEND FOR THIS DEFICIENCY?

A. The proper treatment for this undepreciated amount is to amortize it over a reasonable period. I recommend that the deficiency which exists in this Account be amortized at the rate of $1.5 million per month, which is $18 million per year. Qwest would continue to book that amortization until the full amount of the deficiency had been recovered. The exact period over which that amortization would be booked would depend upon what specific deficiency was left after the last switch is retired, but that amortization period would be approximately three years.[31] Amortization over a reasonable period is appropriate. This deficiency was not created in one year, and should not be recovered in one year.

[30] $110,824,000 x 43% = $47,654,000. 43% is from Rebuttal Exhibit KDW-2.

[31] The undepreciated intrastate amount at the end of 12/31/93 was $63,170,000. If this was the deficiency that existed at the time the last switch was retired, then the amortization I propose would recover that deficiency in three and one-half years. However, there are depreciation accruals occurring in the year 2000. That will reduce the

To arbitrarily assign all of the recovery of that deficiency to just a one year period is inappropriate, and over-burdens the claimed expense during that one year period. These are not costs that were all actually incurred in that one year period. Therefore, those costs should be amortized over a several year period. Arbitrarily assigning all of these costs to just that one year period overstates the actual cost of service during that period.[32]

Amortizing an unusual reserve amount over several years is a well recognized and accepted procedure. For example, in ACC Docket No. U-1345-86-062/85-367 (Decision No. 55931), the Commission amortized certain excess deferred income tax reserve over a five year period.

Q. CAN YOU DEMONSTRATE THE ABSURDITY OF SETTING CUSTOMER RATES BASED ON $63 MILLION RECOVERY OF THE ANALOG SWITCHING DEFICIENCY IN ONE YEAR?

A. Yes. It is reasonable to expect the customers' rates set in this case will be in effect for several years.[33] Under Mr. Wu's Rebuttal proposal, the customers' rates would be set to include $62.3 million in annual depreciation expense for the Analog Switching Equipment. However, that is not a true one year expense, nor is it typical. The intrastate depreciation rates that Qwest actually booked for this Account in 1999 was less than $10 million. The intrastate depreciation accruals

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deficiency below the $63,170,000 level. Therefore, the amortization would actually apply for less than three and one-half years.

[32] Prior to filing my Direct testimony, I looked at what had been occurring in this Account, and had determined that the $17,953,000 annual depreciation expense that Mr. Wu had included in his original testimony for this Account was a reasonable figure that reflected a reasonable annual recovery of the investment in this Account, and adopted it, as shown on Schedule WDA-6, page 1. My original conclusion is valid.

[33] Even if an alternative regulatory structure is established, those structures normally use the "going in" rates as the starting point. Those going in rates may be adjusted up or down based upon productivity and inflation factors, but

1 for this Account that Qwest will actually book in the year 2000 will be less than $10 million.[34]
2 The depreciation expense for this Account that Qwest will book in future years after 2000, will
3 be zero if Mr. Wu's proposal is adopted. (After the year 2000, there will be no investment in this
4 account to which a depreciation rate would apply.) Amortizing this amount at $18 million per
5 year over a several year period is a more reasonable treatment, and recognizes that this expense
6 was actually incurred over a several year period, and therefore should be amortized over a
7 several year period.
8
9 Q. IN ADDITION TO DISCUSSING THE ANALOG SWITCHING ACCOUNT, MR. WU
10 DISAGREES WITH HOW YOU "ROUNDED" CERTAIN NUMBERS, AND HOW YOU
11 "COMPOSITED" CERTAIN ACCOUNTS.[35] ARE ANY OF THESE ISSUES SIGNIFICANT?
12 A. No. "Rounding" the way Mr. Wu proposes actually slightly increases the depreciation accruals
13 over my figure. Adopting Mr. Wu's position on these "rounding" and "composited" issues
14 increases the intrastate annual accrual by approximately $100,000. On Schedule WDA-29, I
15 have adopted Mr. Wu's proposed "rounding" and "composited" methods, so these are no longer
16 issues.
17
18 Q. IS MR. WU'S TREATMENT OF COMPANY COMMUNICATIONS EQUIPMENT
19 CONSISTENT WITH THE ACC ORDER?

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the going in rate continues to influence the actual rates for many years in the future.

[34] Qwest is currently booking a 16.2% depreciation rate for this Account, which produces an annual depreciation rate of less than $10 million. When applied to the investment at the start of the year (Rebuttal Exhibit KDW-1). This produces less than $10 million of depreciation accrual, and the expense will actually be much less than that because the investment will decline over the year.

[35] Page 11, line 20 through page 12, line 4, Wu Rebuttal. Qwest response to Request WDA 34-009.

A. No. For this account, the depreciation rates that Mr. Wu proposes in his Direct and Rebuttal testimonies, were not calculated using the Commission approved "projection life" parameters. The depreciation rate that Qwest is currently booking also does not apply the Commission-approved "projection life" parameter to this Account. In its Decision No. 61645, Finding of Fact 21 states:

> Staff's inputs concerning projection life, survivor curves and salvage parameters are appropriate and should be utilized with the ELG approach.

The Commission adopted the parameters that had been proposed by Staff.[36] Therefore, the Commission adopted the projection life and other parameters for this Account that had been presented by Staff witness Dr. Le. In his July, 1998 Direct testimony, Appendix A, and his April, 1999 Supplemental Schedule 12, Dr. Le had recommended an average projection life of 8.5 years for Account 2123.2. However, when Qwest filed the depreciation rates it was currently booking, Qwest used a projection life of 8.3 years for this Account. Soon after the Company started booking these new depreciation rates, Staff informed Qwest that the projection life Qwest was using for this Account was inconsistent with the ACC Order. However, Qwest did not correct those rates. The depreciation rates that Mr. Wu advocates in his Direct testimony are also calculated utilizing the 8.3 year projection life which is inconsistent with the Commission Order.[37] The revised depreciation rates that Mr. Wu presented in his Rebuttal testimony also improperly utilize the 8.3 year projection life.

[36] The Order identified seven accounts for additional analysis. Company Communications Equipment Account was not one of those seven accounts.
[37] Exhibit KDW-1, page 6, Wu Direct.

In addition, Mr. Wu indicated that one of the errors he alleges exists in my depreciation rates is that I calculated the remaining life for this Account using the Commission approved parameter of 8.5 years instead of using the 8.3 year projection life that Qwest is improperly utilizing.[38]

When I first noticed this problem many months ago, I first assumed the Company simply had a typographical error. However, Mr. Wu has now repeatedly utilized this incorrect projection life. Mr. Wu's allegation, in his Rebuttal testimony and the supporting discovery responses, that my remaining life calculation is in error because I used the Commission approved 8.5 year projection life, is invalid.

Q. IS THERE ANY ADDITIONAL ERROR IN MR. WU'S REVISED DEPRECIATION RATE CHANGE IMPACT ON REBUTTAL EXHIBIT KDW-1?

A. Yes. Mr. Wu shows an increase of $575,000 for Public Telephone Terminal Equipment, Account 2351. However, as Mr. Wu acknowledged in discovery, the investment in this account is deregulated, and:

> Public Telephone Terminal Equipment should not have a depreciation accrual change shown in the last column of Rebuttal Exhibit KDW-1. This reduces the total by $575K.[39]

E. RECOMMENDED DEPRECIATION AND AMORTIZATION

Q. WHEN THE DEPRECIATION AND AMORTIZATION IS PROPERLY CALCULATED, WHAT IS THE CHANGE IN ANNUAL EXPENSE THAT RESULTS FROM THE CHANGE IN RATES?

[38] Qwest response to Request WDA 34-009.

1 A. As shown on Schedule WDA-29, the change in depreciation accruals which results from the
2 change in depreciation rates is $68,409,000. This compares to **$ ** that was
3 originally contained on Schedule WDA-6, page 1 of my Direct. This is a change of
4 approximately **$.** [40]
5
6 Q. WHAT DO YOU RECOMMEND?
7 A. I recommend that the depreciation rates and amortization shown on Schedule WDA-29 be
8 adopted. These rates are proper. They are calculated by applying the Commission-approved
9 depreciation parameters to the test year (12/31/99) reserve and investment levels. For the
10 Account that will soon be dead, Analog Switching Equipment, this proposal includes a
11 reasonable amortization of the deficiency of $18 million per year, which will amortize the
12 deficiency over approximately a three year period.
13

14 **III. RESPONSE TO MR. LEE'S TESTIMONY ON BEHALF OF**
15 **THE DEPARTMENT OF DEFENSE**

16
17 Q. IN HIS REBUTTAL, MR. WU GROUPS YOUR PROPOSAL PERTAINING TO
18 DEPRECIATION WITH MR. LEE'S.[41] IS YOUR PROPOSAL PERTAINING TO THE
19 DEPRECIATION EXPENSE CALCULATION SIMILAR TO MR. LEE'S?

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[39] Qwest response to Request WDA 34-013C.
[40] In addition, as discussed in my Direct testimony, there is also an adjustment that moves the depreciation expense from the mid-year to the end-of-year investment that adds approximately another $10 million to the intrastate depreciation expense adjustment. (Schedule WDA-9) This is not changed by any of the above.
[41] Page i, Wu Rebuttal.

A. No. My proposal is very different from Mr. Lee's proposal. Mr. Lee's proposal includes adjusting the 12/31/99 book depreciation reserve to what the reserve would have been had the revised depreciation rates gone into effect 1/1/97.[42]

The depreciation rates Staff has proposed are calculated by applying the Commission approved depreciation parameters to the 12/31/99 "per book" investments and depreciation reserves, as those reserves appear on the books of Qwest. Staff did not adjust the "per book" reserve levels to what that number would have been had Qwest been booking intrastate depreciation rates different from those it was actually booking. The depreciation reserve levels used in Staff's calculation are the actual 12/31/99 intrastate depreciation reserve levels of Qwest, as those figures actually appear on their books. Staff does not propose assuming the depreciation rates commence accruing anytime prior to the time they actually commenced accruing. Therefore, Mr. Wu's response to Mr. Lee's testimony does not respond to Staff's proposal.

IV. RATE DESIGN

Q. WHAT WAS QWEST'S RESPONSE TO THE STAFF'S CONTRIBUTION ANALYSIS?

A. Qwest's entire rebuttal to the Staff's contribution analysis is found on page 19 of Mr. Teitzel's Rebuttal testimony. Mr. Teitzel only argues that since Staff's contribution analysis treats the loop as a shared facility, the Staff's contribution analysis is invalid. The corollary to this argument is if the loop facility is a shared facility, Staff's contribution analysis is valid. As discussed in my Rate Design Direct, that analysis showed that the revenues for 1FR service were

[42] Page 13, lines 7-9, Lee Direct, July 25, 2000. Also see Column E, Attachment 1, page 1.

1 greatly exceeding its properly calculated TSLRIC. That analysis also showed that residential
2 basic exchange service currently contributed more towards the recovery of joint, shared, and
3 common costs of providing telecommunications services in Arizona than does toll, switched
4 access, or even vertical service.
5
6 **A. THE LOOP IS A SHARED FACILITY**
7
8 Q. ON PAGE 16 OF HIS REBUTTAL, DR. TAYLOR REFERS TO YOUR DETERMINATION
9 THAT THE LOOP IS A SHARED FACILITY WHEN HE STATES "MR. DUNKEL'S
10 CONCLUSION IS CONTRARY TO SOUND ECONOMIC PRINCIPLES AND BASED ON A
11 MISUNDERSTANDING OF ECONOMIC COSTS AND THE COST RECOVERY
12 PROCESS." IS THERE ANYTHING IRONIC ABOUT DR. TAYLOR'S STATEMENT?
13 A. Yes. The irony lies in the fact that Dr. Taylor's conclusion that the loop facility is not a shared
14 facility is based upon Dr. Taylor's misunderstanding of the way the telecommunications network
15 is engineered. The fact of the matter is that the telecommunications network is engineered such
16 that a number of different services share and depend upon the loop facilities. Even if any one of
17 the services that depends upon the loop facilities is discontinued or eliminated from the network,
18 while Qwest continues to provide all other services that depend upon the loop facilities, the loop
19 facilities would still be required.
20
21 For example, if Qwest were to discontinue or eliminate basic exchange service, while it
22 continued to provide toll, switched access and vertical services, the loop facilities would still be
23 required because a loop facility is necessary to provide toll, switched access and vertical

1 services. In my Direct Testimony Exhibit WDA-17, I graphically depicted the network facilities
2 that are required to provide Toll, Vertical Services, Switched Access, Basic Local Service and
3 ADSL high-speed internet services. As this Schedule demonstrates, all of these services require
4 the loop facilities. If any one of these services are eliminated, while the rest of the services
5 continue to be provided, the loop facilities would continue to be required. This is an engineering
6 fact. The telecommunications network is engineered such that none of these services can be
7 provided without a loop facility. There are no economic principles or theories that can explain
8 away the fact that some loop facility is required to provide all of these services.
9
10 Q. ON PAGE 16 OF HIS REBUTTAL, DR. TAYLOR CLAIMS THAT YOUR POSITION THAT
11 THE LOOP IS A SHARED FACILITY THAT SHOULD NOT BE INCLUDED IN THE
12 TSLRIC OF BASIC EXCHANGE SERVICE, OR ANY OTHER SERVICE THAT SHARES
13 THE LOOP FACILITY, "HAS BEEN THOROUGHLY DISCREDITED IN THE
14 ECONOMICS LITERATURE." WHAT "ECONOMICS LITERATURE" DOES DR. TAYLOR
15 REFER TO?
16 A. The "economics literature" that Dr. Taylor refers to were two articles that were authored by Dr.
17 Taylor or other individuals who are well known for their work as witnesses who testify of behalf
18 of telephone companies. All authors of the two articles he referenced are also currently, or have
19 been, associated with Dr. Taylor's firm.[43]
20

[43]In Footnote 15 on page 16 of his Rebuttal, Dr. Taylor refers to two articles. One article was co-authored by A.E. Kahn, who is well known for testifying on behalf of LECs and was a special consultant to the firm that Dr. Taylor works for National Economic Research Associates, Inc. (NERA) at the time the article was published, and William Shew, who was the Vice-President of NERA at the time the referenced article was published. The other article was authored by Dr. Taylor himself.

In contrast, I have supported my view of the loop facilities as shared facilities, by citing numerous regulatory authorities. On pages 49-55 of my Direct Testimony in this proceeding, I provided citations to the Supreme Court, the FCC, the Joint Board, the orders of the commissions in a number of other states and NARUC, which all support my view that the loop is indeed a shared facility.

Q. DID YOU RELY UPON "SOUND ECONOMIC PRINCIPLES" WHEN YOU MADE YOUR DETERMINATION THAT THE LOOP FACILITY SHOULD NOT BE INCLUDED IN THE TSLRIC OF BASIC EXCHANGE SERVICE?

A. Yes, as was discussed in the Direct testimony filed by Thomas Regan. In fact, I relied upon the exact same economic principles that Qwest claims to rely upon (but misapplies) when calculating the TSLRIC of basic exchange service. The Qwest cost studies state the following:

> **Total Direct Costs** - Total Direct cost is the total forward-looking direct cost of providing a product or service to the total universe of U S WEST customers. It most closely reflects the cost of replacing all the facilities directly required to provide that product or service. <u>It does not include costs that are required but which also benefit the provision of other products and services.</u> It reflects the forward-looking cost of the entire service provided in the most efficient manner, holding constant the production of all other services produced by the firm. This cost has frequently been referred to as TSLRIC.[44] (Emphasis added)

As I pointed out on page 38 of my Rate Design Direct Testimony, Qwest defines TSLRIC as the following:

> The TSLRIC studies identify the total cost of offering the service - defined as <u>the total costs incurred by U S WEST while offering the service, less the total costs that would be incurred by U S WEST if the service were not offered.</u>[45] (Emphasis added)

[44] Thompson Direct, Exhibit JLT-1, page 7.
[45] Thompson Direct Testimony, page 4, line 23.

1 Using Qwest's claimed definition of TSLRIC above, the TSLRIC is found by identifying the
2 difference between "the total costs incurred by U S WEST while offering the service" and "the
3 total costs that would be incurred by U S WEST if the service were not offered."
4
5 The "total costs incurred by U S WEST" while offering basic exchange service, toll, switched
6 access, vertical services, etc., would include the loop facility costs. Likewise, the "total costs
7 that would be incurred by U S WEST" if basic exchange service were not offered (while
8 continuing to provide toll, switched access, vertical services, etc.) would also include the loop
9 facility costs. Eliminating basic exchange service while continuing to provide toll, switched
10 access, and vertical services, would not eliminate the cost of the loop. A facility of some type to
11 deliver traffic to and from the premise (the loop) would be required even if basic exchange
12 service was not provided, while the other services were provided. Therefore, even relying upon
13 Qwest's own definition of TSLRIC, the loop facility costs are not properly included in the
14 TSLRIC of basic exchange service.
15
16 In order to determine what costs would be incurred under these two scenarios, you must properly
17 recognize how the telecommunications network is engineered, and what facilities would continue
18 to be required if a particular service is no longer offered, while continuing to provide all other
19 services. This is where Dr. Taylor makes his critical error. Dr. Taylor fails to properly
20 recognize that loop facilities would be required to provide toll, switched access, vertical services
21 and the other services that share the loop facilities, even if basic exchange service were to be
22 discontinued or eliminated. It is an undeniable physical fact that a loop facility would be

required to provide toll, switched access, vertical services and other services, even if basic exchange service were not provided.

Q. ON PAGE 17 OF HIS REBUTTAL, DR. TAYLOR ARGUES THAT THE FUNDAMENTAL PRINCIPLE HE RELIES UPON TO FORM HIS CONCLUSION ABOUT HOW THE COST OF THE LOOP SHOULD BE ASSIGNED IS "COST CAUSATION." CAN YOU PROVE THAT THE LOOP FACILITY COSTS ARE NOT SOLELY "CAUSED BY" BASIC EXCHANGE SERVICE?

A. Yes. In discovery, Qwest admitted that if a certain cost is not avoided when a service is eliminated or discontinued, while continuing to provide all other services, that cost is not considered to be "caused" by the provision of the service in question. The relevant data request and Qwest's response are as follows:

<u>Data Request WDA 2-7 (b):</u>

Request: Is it a correct statement that if a company does not avoid certain costs in the long run when a service in question is eliminated (or not offered), while holding constant the production of all other services produced by the Company, those costs which are not eliminated if the service in question is eliminated are not properly considered to be "caused" by the provision of the service in question?

Response: Generally, yes.

As discussed above, the loop facilities would continue to be required to provide toll, switched access, vertical services and other services, even if basic exchange service were not provided. Therefore, since the loop cost would not be eliminated if basic exchange service were eliminated, while holding constant the production of all other services produced by Qwest, the loop facility costs cannot possible be considered to be "caused" by the provision of basic exchange service.

1 This determination is based upon the principle that Qwest admitted it agrees with, as

2 demonstrated above.

3

4 Q. ON PAGE 22 OF HIS REBUTTAL, DR TAYLOR STATES:

5 If Qwest were to decide to cease the supply of all services except for basic exchange
6 service, it would not avoid the cost of the loop. But, if it decided to withdraw only its
7 basic exchange service - specifically, the network access part - and kept all the other
8 services, then it would definitely avoid the cost of the loop, just as long distance carriers,
9 alarm companies, and other enhanced service providers do.

10

11 WHAT IS WRONG WITH DR. TAYLOR'S ASSESSMENT OF THE LOOP COSTS IN THE

12 ABOVE REFERENCED STATEMENT?

13 A. Long distance carriers, alarm companies, and enhanced service providers do utilize the loop.

14 They do need a loop in order to provide their services. If an alarm company does not build its

15 own loop, it "rents" a loop from the LEC. In order to provide its alarm services, the alarm

16 company does incur the cost of the loop.[46] The cost of the loop exists whether they are the cost

17 of "ownership" or the cost of "rental." Likewise, if toll carriers do not build their own loops,

18 then they rent the loop facilities from an LEC or CLEC. Again, to provide toll service, loop

19 facilities are required. If an LEC or alarm company rents a loop to provide long distance or

20 alarm services, that loop "rental" is part of the cost of providing those services. Quite simply, if

21 a company attempted to provide toll service without any facility that would connect traffic to and

22 from the customer premises, that toll service would not work.[47] The IXCs do not get to use

[46] "Private line" alarm services are different than toll, basic exchange, and vertical services, since "private line" alarm services generally do not share the "switched" loop, but instead may utilize a dedicated private line. However, some alarm services (such as those that use a "dialer" to call in the event of an emergency), may use the "switched" loop. The shared loops discussed in my testimony are the "switched" loops, not the dedicated "private line" loops. The "switched" loops are sometimes referred to as "common lines."

[47] Even if radio facilities were used, transmission towers, a radio receiver and transmitter at the customer premises would be required. (i.e. wireless loop) There is no "free" technology that allows connection of telecommunications traffic to and from customer premises.

Qwest's loops for intrastate services free in Arizona, nor should they. As discussed above, the telecommunications network is engineered such that a loop facility is required to provide toll, switched access, vertical services and other services. Therefore, Dr. Taylor does not explain how Qwest will be able to provide these other services (that depend upon the loop facilities) without the loop facilities. It is a simple physical fact that if a toll call is going to get to a customer premises, there must be some facility to get the toll call there.

Q. IN ANOTHER STATE, DID DR. TAYLOR ADMIT THAT THE LOOP WOULD STILL BE REQUIRED TO PROVIDE TOLL SERVICE, EVEN IF QWEST CEASED TO PROVIDE BASIC EXCHANGE SERVICE?

A. Yes. In New Mexico Utility Case No. 3008, which is a general rate case of Qwest, Dr. Taylor specifically admitted that the loop facilities would continue to be required to provide toll, even if Qwest ceased to provide basic exchange service. Dr. Taylor stated as follows:

> If U S WEST ceased the supply of all services - including the network access (or loop) portion of basic exchange service - but continued to provide toll service, then a replacement loop facility would be needed to transmit toll messages to and from the end-user. Whether it is used to carry basic exchange usage services or toll service, or both, the loop would still be needed to provide connectivity to the relevant network.[48]

As it is clear from his response referenced above, Dr. Taylor has recognized the fact that the loop would be needed to provide toll services, even if Qwest ceased to provide basic exchange service. The same principle applies to Qwest's toll services in Arizona.

[48]New Mexico Utility Case No. 3008, Qwest's response to Data Request PRC 32-145 (Respondent: Dr. Taylor).

Q. DESPITE THE FACT THAT HE RECOGNIZES THE FACT THAT THE LOOP FACILITY WOULD STILL BE REQUIRED TO PROVIDE OTHER SERVICES, EVEN IF BASIC EXCHANGE SERVICE WERE NOT OFFERED, WHAT IS ONE WAY DR. TAYLOR ATTEMPTS TO JUSTIFY ATTRIBUTING ALL OF THE LOOP COSTS TO BASIC EXCHANGE SERVICE?

A. Dr. Taylor attempts to justify attributing all of the costs of the loop facility to basic exchange service by suggesting that basic exchange service is the only service that requires "network access." Dr. Taylor states:

> First, because residential basic exchange service is really an integrated offering of two distinct and separable services - non-usage-sensitive network access and local usage - any withdrawal of that integrated service will mean that Qwest will avoid not just the cost of local usage service but also the network access service (the loop).[49]

Q. IS DR. TAYLOR'S CLAIM THAT BASIC EXCHANGE SERVICE INCLUDES "NETWORK ACCESS" SUFFICIENT TO JUSTIFY ATTRIBUTING THE LOOP COSTS SOLELY TO BASIC EXCHANGE SERVICE?

A. No. As discussed above, many services require access to the network in order to be provided. Toll, switched access, vertical services and ADSL high-speed internet access services all require "network access." Without access to the loop facilities, the provision of these services would not be possible. Therefore, Dr. Taylor's assumption that basic exchange service is the only service requiring or providing "network access" is simply wrong. For example, in order to deliver a toll call, the toll carrier must gain "network access" to the loop facilities that are required to deliver the toll call. Even if there were no basic exchange service offered, a loop would be needed for other services, including toll, vertical services, ADSL high-speed Internet access service and

[49]Taylor Rebuttal, page 20, lines 17-21.

other services. Therefore, pointing out that basic exchange service requires access to the loop facilities does nothing to advance the flawed argument that the loop facilities costs should be considered solely a cost of basic exchange service. The simple fact is that many services in addition to basic exchange service require access to the shared loop facilities.

Q. IS THERE ANOTHER WAY THAT DR. TAYLOR ATTEMPTS TO JUSTIFY ATTRIBUTING ALL OF THE LOOP COSTS TO BASIC EXCHANGE SERVICE?

A. Yes. Dr. Taylor offers another flawed attempt to justify his position. On page 21 of his Rebuttal, Dr. Taylor alleges that long distance carriers (IXCs) get to use the loop facilities owned by the LECs for free, therefore the IXCs are able to provide toll service and avoid the cost of the loops. However, Dr. Taylor's claim is not true. As discussed in my Direct testimony, the IXCs must pay Qwest for sharing the common lines (loops) that Qwest owns, and the IXCs need to use to provide toll services to their end-users. Specifically, the IXCs pay Qwest an intrastate Carrier Common Line Charge (CCLC) to share the loop facilities owned by Qwest. The CCLC is the switched access charge by which Qwest recovers a portion of the loop facilities costs from the IXCs. The specific name for the service from Qwest's tariff that the IXCs obtain in exchange for paying the CCLC is called "Carrier Common Line Access Service." This service is described in Qwest's tariff as follows:

3. CARRIER COMMON LINE ACCESS SERVICE

3.1 GENERAL DESCRIPTION

Carrier Common Line Access Service provides for the use of Company common lines by customers for access to end users to furnish intrastate telecommunications service. The Company will provide Carrier Common Line Access Service (Carrier Common Line

Access) to customers in conjunction with Switched Access Service provided in Section 6 of this Tariff.

In Arizona, the IXCs pay an average of **$ ** per-line per month for the CCLC to use Qwest's loop facilities to provide intrastate toll services.[50] The calculation of this figure is shown on Schedule WDA-30. Therefore, Dr. Taylor's assumption that the IXCs get to use Qwest's loop facilities for free is false. The IXCs quite properly incur a cost to share the loop facilities owned by Qwest.

Q. WOULD IT BE PROPER TO ALLOW THE IXCS TO SHARE THE LOOP FACILITIES FOR FREE?

A. No. The result of such a decision would be to provide the toll carriers with a free ride on the loop facilities. Under such an arrangement, the other LECs' services would be forced to carry the burden of recovering all of the loop facilities costs. This would place a disproportionate share of the cost of the shared loop facility on the other services, including basic exchange services.

A much more rational and reasonable arrangement would be to require the IXCs to contribute toward the recovery of the loop facilities that they share and depend upon. This is exactly the situation that currently exists in Arizona. The IXCs contribute ** ** per line, per-month toward the shared loop facilities costs. Sharing facilities is also a more efficient way than building separate facilities for each service. However, this efficiency can be created only if the services that share the facility also share the cost of the shared facility. All services share a portion of the benefit that comes from sharing the facilities. Having more than one service share

1 a facility, and therefore appropriately share both the benefits and the costs of that shared facility,
2 is promoting efficiency.
3
4 Q. UNDER WHAT CIRCUMSTANCES MIGHT AN LEC BE WILLING TO GO ALONG WITH
5 ALLOWING AN IXC TO SHARE THE LOOP FACILITIES FOR FREE?
6 A. If the LEC had the benefit of a monopoly or near-monopoly service, the LEC could simply
7 recover all of the costs of the shared loop facilities from its own end-users of those monopoly
8 services, and be relatively neutral on the issue. In fact, in his Rebuttal in this proceeding, Mr.
9 McIntyre responded to the concept of shifting revenue requirement from switched access rates,
10 paid by carriers, to the end-users as part of their basic rates. Mr. McIntyre stated:

11 > Qwest would receive the revenue from a different source and therefore remain relatively
12 > neutral.[51]
13
14

15 In addition, switched access service is one of the services that Qwest believes is a potentially
16 competitive service. As discussed on page 3 of his Rebuttal, Mr. McIntyre points out that one of
17 the reasons it wants to reduce switched access rates is to prevent "competitive bypass."
18 Therefore, by supporting reduced switched access rates with monopoly service (i.e. basic
19 exchange service) rate increases, Qwest can discourage competition for the access service (by
20 making the service less profitable), and still "remain relatively neutral" with respect to the total
21 revenues it receives.
22

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[50]CCLC Revenues obtained from Qwest's Priceout, Section A3.8R divided by total lines in service, provided by Qwest in response to Data Request WDA 21-13, Attachment A.
[51]McIntyre rebuttal, page 3, lines 15-16.

However, if the LEC did not have a monopoly service (i.e. the market were competitive for all services, including basic exchange service), the LEC would not have the ability to recover all of the loop facility costs from its end-users. In a truly competitive market where all services are competitive, competition would prevent the LECs from over-burdening one class of customers. If one company attempted to over-recover shared costs from one service, customers of that service would go elsewhere. In competitive markets, there are no "free rides". The "free ride" that some parties are proposing for the IXCs on the loop facilities could be supported only by extracting a disproportionate recovery of the cost of the shared facilities from the other services, primarily basic exchange services.

Q. BEGINNING ON PAGE 26, LINE 28 OF HIS REBUTTAL, DR. TAYLOR ARGUES THAT SINCE THE LOOP FACILITIES COSTS ARE NON-TRAFFIC SENSITIVE, THE LOOP COSTS MUST BE RECOVERED FROM BASIC EXCHANGE SERVICE RATES. DOES THE FACT THAT THE LOOP COSTS ARE NON-TRAFFIC SENSITIVE MEAN THAT BASIC EXCHANGE RATES MUST RECOVER ALL OF THE LOOP COSTS?

A. No. Even if the loop facilities costs are non-traffic sensitive, this does not in any way implicate basic exchange service as the sole cause of the loop facility costs. A bill to recover a portion of the "fixed" costs could be sent to the IXCs just as easily as being sent to the end users. The "fixed" costs are a part of almost any business. For example, in a fast food restaurant, the "rent" may be a "fixed" cost that does not vary based upon the number of hamburgers and hot dogs sold. However, although the rent is a fixed cost, it is a cost that must be recovered. Therefore, the pricing of the hamburgers, hot dogs, and other products sold must be set so as to not only cover the incremental cost of those products, but also cover the "fixed rent" costs as well.

Q. HAS THE FCC SPECIFICALLY INDICATED THAT THE LOOP FACILITY COSTS CANNOT BE ALLOCATED ON THE BASIS OF COST CAUSATION?

A. Yes. The FCC has specifically stated the following:

> By contrast, the costs of other facilities used for both interstate and intrastate traffic do not vary with the amount of traffic carried over the facilities, i.e., the costs are non-traffic sensitive. These costs pose particularly difficult problems for the separations process: the costs of such facilities cannot be allocated on the basis of cost-causation principles because all of the facilities would be required even if they were used only to provide local service or only to provide interstate access. A significant illustration of this problem is allocating the cost of the local loop, which is needed both to provide local telephone service as well as to originate and terminate long distance calls.

Q. WOULD IT BE POSSIBLE TO IMPLEMENT A PRICING POLICY WHERE THE LOOP FACILITY COSTS ARE RECOVERED THROUGH FLAT-RATED CHARGES FROM EACH OF THE SERVICES THAT SHARE THE LOOP FACILITY?

A. Yes. If Qwest's true concern was that the loop facility costs be recovered through flat-rated charges for the recovery of the loop facilities, rather than per-minute charges, Qwest could propose a flat-rated monthly charge for each of the services that share the loop. Including the services to the IXCs, Staff is not proposing any such charge in this proceeding. However, if the concern truly was the "form" of the current billing to the IXCs, then it would be more reasonable to change the "form" of the billing to the IXCs, than it would be to give the IXCs a free ride on the loop facilities.

Q. IN HIS REBUTTAL, MR. THOMPSON RAISES A NUMBER OF THE SAME ARGUMENTS THAT DR. TAYLOR RAISED IN HIS REBUTTAL REGARDING THE TREATMENT OF THE LOOP FACILITY COSTS. DOES YOUR SURREBUTTAL RESPONSE TO DR.

1 TAYLOR'S REBUTTAL SERVE AS APPROPRIATE REBUTTAL TO MR. THOMPSON'S
2 REBUTTAL AS WELL?
3 A. Yes. Instead of repeating the same arguments in response to Mr. Thompson's Rebuttal, my
4 Surrebuttal to the issues raised by Dr. Taylor serves as the appropriate response to a number of
5 the same or similar arguments contained in Mr. Thompson's Rebuttal as well.
6
7 Q. ON PAGE 14 OF HIS REBUTTAL, MR. THOMPSON ADMITS THAT PURSUANT TO THE
8 SUPREME COURT'S DECISION AND THE FCC'S RULES, 25% OF THE LOOP
9 FACILITIES COSTS ARE ALLOCATED TO THE INTERSTATE JURISDICTION.
10 HOWEVER, MR. THOMPSON CLAIMS THAT THIS ALLOCATION SHOULD NOT BE
11 MADE WHEN CALCULATING THE TSLRIC COSTS OF INTRASTATE SERVICES.
12 PLEASE RESPOND.
13 A. First of all, as discussed in both my Direct testimony and in this Surrebuttal testimony, the
14 properly calculated TSLRIC costs do not include the loop facility costs. Therefore, there is no
15 valid issue of "allocating" the loop cost with respect to any TSLRIC cost study. Secondly, if the
16 rates for intrastate services are based upon costs that include 100% of the loop facility costs, the
17 result will be a double recovery of the interstate portion of the loop facility costs. This is true
18 because the 25% of the loop costs that is allocated to the interstate jurisdiction is recovered in
19 interstate rates.
20
21 There is no valid reason to consider 100% of the loop facility costs when analyzing the costs of
22 intrastate services. Since 25% of the costs of the loop are allocated to the interstate jurisdiction,
23 these costs do not even exist in the intrastate jurisdiction. Therefore, any measures of cost that

include 100% of the loop facility costs when only 75% of those costs even exist in the intrastate jurisdiction will provide an unnecessary and unreasonably distorted view of the intrastate costs of providing services. For these reasons Mr. Thompson's suggestion that 100% of the loop facilities be included in costs calculations of intrastate services (whether those costs are TSLRIC or other costs) should be rejected.

In addition, the intrastate portion of the loop facility costs (75% of the unseparated cost) is the portion of the loop costs that must be recovered in the intrastate rates from all services that share the loop, not just one of the intrastate services that share the loop (i.e. basic exchange service). As discussed in my Direct Testimony and in this Surrebuttal, there are a number of intrastate services that share the loop facilities, including toll, switched access, vertical services, ADSL services as well as basic exchange services.

Q. ON PAGE 15 OF HIS REBUTTAL, MR. THOMPSON RESPONDS TO YOUR TESTIMONY WHERE YOU LISTED A NUMBER OF COMMISSION ORDERS FROM VARIOUS STATES BY CLAIMING THAT "WITH ONE EXCEPTION, WERE ALL RENDERED PRIOR TO THE TELECOM ACT OF 1996". DID ANY OF THE COMMISSION ORDERS YOU REFERENCED DEAL DIRECTLY WITH THE TELECOM ACT OF 1996?

A. Yes. One of the Commission orders I referenced was that of the Indiana Utility Regulatory Commission (IURC), which is dated October 28, 1998. This Order specifically dealt with the TA96, and specifically found that assigning 100% of the loop cost to one service would violate Section 254(k) of TA96. It found that the loop was "included in the definition of common and joint costs." The IURC found that,

> For purposes of resolving 'takings' claims and 'a reasonable share of the joint and common costs of facilities used to provide those services,' the loop must, therefore, be included in the definition of common and joint costs in order to determine confiscation claims and to be in compliance with the second sentence of Section 254(k). We find that the direct assignment of 100% of the loop costs to any one service would be a violation of the second sentence of Section 254(k).[52] (Emphasis added)

The Indiana Order specifically found that assigning 100% of the costs to any one service (which is what Qwest is proposing to do in this proceeding), is in direct violation of the TA96.

In fact, TA96 added an additional requirement that specifically requires that the rates for universal service (which includes basic exchange service) may not include more than a reasonable share of the joint and common costs.

> (k) SUBSIDY OF COMPETITIVE SERVICES PROHIBITED.--A telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition. The Commission, with respect to interstate services, and the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services.

B. QWEST'S IDEA OF "ECONOMICALLY EFFICIENT" PRICING IS TO SHIFT THE BURDEN OF SHARED/JOINT/COMMON COST RECOVERY FROM COMPETITIVE SERVICES ONTO NON-COMPETITIVE SERVICES

Q. ON PAGE 76 OF HIS REBUTTAL, DR. TAYLOR RECOMMENDS USING "RAMSEY PRICING" PRINCIPLES TO GUIDE SERVICE RATES IN THIS PROCEEDING. WHAT DOES THIS MEAN?

[52] Indiana Utility Regulatory Commission Order, Cause No. 40785, Section V.(C) Common and Joint Costs, Issued October 28, 1998.

A. Under Ramsey Pricing, those services with the most inelastic demand (i.e. monopoly services) are forced to recover a greater share of the shared, joint and common costs of the firm so that those services with more elastic demand (i.e. competitive services) contribute very little toward the shared, joint and common costs of the firm. As Dr. Taylor indicates in footnote 68 on page 76 of his Rebuttal, "The elasticity of demand measures how sensitive customers are to changes in prices." In general, if a service is "inelastic", that means that if you increase the rate for the service, the total revenue that you receive will increase. Monopoly services are generally more inelastic than competitive services. With competitive services, if the company raises prices, the customers can go elsewhere. However, if the company has monopoly powers, the customers cannot go elsewhere in response to a price increase. Well-known economist William J. Baumol stated:

> Where scale economies are present, marginal cost pricing will, as we know, not cover total cost, and the Ramsey theorem suggests that the prices of products whose demands are particularly inelastic should then be raised most substantially above marginal costs. But, to paraphrase the comments of one federal administrative law judge whose decision dealt with the issue,[53] this places the burden upon those customers who have no place else to go, whose demands are inelastic because they have no real alternative.[54] (Emphasis added)

Q. HAS THE FCC REJECTED THE USE OF RAMSEY PRICING PRINCIPLES?

A. Yes. In its Local Competition Order, the FCC specifically addressed and rejected the use of Ramsey Pricing principles when it stated:

> On the other hand, certain other allocation methods would not be reasonable. For example, we conclude that an allocation methodology that relies exclusively on allocating common costs in inverse proportion to the sensitivity of demand for various network elements may not be used. We conclude that such an allocation could unreasonably limit the extent of entry into local exchange markets by allocating more costs to, and thus

[53]See the decision of Judge Kraushaar in FCC Docket 19129 Phase II, August 2, 1976.
[54]W.J. Baumol, Superfairness, Cambridge, MA: MIT Press, 1986, p.4.

raising the prices of, the most critical bottleneck inputs, the demand for which tends to be relatively inelastic. Such an allocation of these costs would undermine the pro-competitive objectives of the 1996 Act.[55]

"Ramsey Pricing" is simply a different name for the concept of charging customers higher rates whenever a company can do so, because it has monopoly power over them. Referring to those customers who simply have nowhere else to turn as more "inelastic" customers, instead of calling them "monopoly" customers does not change the concept.

Q. WHAT IS WRONG WITH THE COMPANY CHARGING MORE WHERE IT HAS MONOPOLY POWER THAN IT WOULD CHARGE IF IT DID NOT HAVE A MONOPOLY?

A. This is an abuse of monopoly power, plain and simple. One of the primary reasons regulation of monopoly services exists is to prevent the companies from abusing that monopoly power. As I discussed in my Direct Testimony, in the old days prior to the regulation of the railroad industry, the three or four railroad companies would engage in cut-throat price competition for long haul routes where competition existed. At the same time, for short-hauled trips where shippers had no alternative, the railroads would jack up the rates to very high levels. This discriminatory pattern of rates is one thing that led to the establishment of the Interstate Commerce Commission to regulate the railroad industry.[56]

Q. COULD YOU GIVE US SOME REAL WORLD EXAMPLES OF WHY ALLOWING RAMSEY PRICING IS NOT IN THE PUBLIC INTEREST?

[55]FCC Local Competition Order, 96-325 at ¶696.
[56]Dunkel Direct, page 6.

1 A. Yes. If there was only one taxicab around, and you were in a hurry to make an important plane
2 connection, or to go to the hospital to have a baby, that taxicab ride might cost you several
3 hundred dollars under Ramsey pricing. Under Ramsey pricing, when a customer's demand is
4 inelastic (or in other words when they have no choice), the price must be set high.
5
6 As another example, if someone who was near death from lack of water stumbled in out of the
7 desert into a convenience store that was the only possible source of water, the proper Ramsey
8 pricing for a bottle of water (which normally retailed for $1.00) would be very high (i.e.
9 $100,000). That would be correct Ramsey pricing, because in this case the customer's demand
10 would be highly inelastic, and Ramsey Pricing dictates that the more inelastic the demand, the
11 higher the price.
12
13 Ramsey pricing, in effect, says that companies should charge more to customers who have no
14 choice. The more monopoly power that the company has over the customer, and the more the
15 customer needs the service, the more the company should charge them. This same principle,
16 throughout the decades, has gone by names other than Ramsey pricing. "Price gouging" and
17 "abuse of monopoly power" are examples.
18
19 It is well established that abuse of monopoly power, price gouging, and Ramsey Pricing, all of
20 which are effectively the same thing, are contrary to the public interest. Therefore, this
21 Commission should reject that concept.
22
23

C. COMPETITIVE ZONES

Q. ON PAGE 10 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT QWEST'S COMPETITIVE ZONE PROPOSAL "COMPLIES COMPLETELY WITH COMMISSION RULES." DOES THE QWEST PROPOSAL COMPLY WITH ARTICLE 11, SECTION R14-2-1108 (B) OF THE COMMISSION'S RULES?

A. No. Under Mr. Teitzel's proposed "competitive zone" regulatory structure, the information that the Commission's rules require would not be required to classify a wire center as a "competitive zone." As discussed on page 14 of my Direct, under the Qwest proposal, any wire center where any competitor, including a reseller, is offering even one residential service would result in all residential services being classified as a "competitive zone." Under Qwest's proposal, Qwest would not be required to show any indications of market power, provide the estimated market share, provide a description of the general economic conditions in the relevant market that make the service competitive, or provide most of the other information that are properly required by the current Commission rules in order to determine if effective competition exists.

Q. ON PAGE 12 OF YOUR DIRECT, YOU POINTED OUT THAT MR. TEITZEL'S PROPOSAL ON PAGE 3 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT PRICES FOR REGULATED SERVICES OUTSIDE OF "COMPETITIVE ZONES" WILL CONTINUE TO BE SET BY THE COMMISSION, THEREFORE QWEST WOULD NOT BE ALLOWED TO INCREASE RATES WHERE EFFECTIVE COMPETITION DOES NOT EXIST. WOULD QWEST'S "COMPETITIVE ZONE" PROPOSAL ALLOW QWEST TO INCREASE RATES WHERE EFFECTIVE COMPETITION DOES NOT EXIST?

1 A. Absolutely. The reason for this is simple - under Qwest's "competitive zone" proposal, effective
2 competition need not exist in a wire center in order for it to be established as a "competitive
3 zone." As I discussed on pages 11-12 of my direct testimony in this proceeding, even if a
4 competitor offers only one residential service in a wire center, then all of the residential services
5 could be deemed competitive in that wire center, even if there is no competitor actually
6 providing the other residential services in that wire center. Likewise, if a competitor offers even
7 one business service in that zone, then all business services could be deemed competitive in that
8 zone.
9
10 The Qwest "competitive zone" proposal is crafted such that all Qwest must do is demonstrate
11 that at least one company is at least offering one service that is competing with a Qwest service
12 offering. After that, Qwest would be granted pricing flexibility on all services in that category
13 (residential or business), even if there is no alternative provider even offering those other
14 services. As discussed on page 14 of my direct testimony, no indication of market power,
15 market share or other information that indicates effective competition actually exists, would be
16 required. Quite simply, Qwest would be allowed to declare areas as "competitive" even where
17 there was no effective price constraining competition.
18
19 Q. ABOVE YOU INDICATED THAT QWEST'S "COMPETITIVE ZONE" PROPOSAL IS
20 WRITTEN SUCH THAT A COMPETITOR OFFERING A SINGLE SERVICE IN A WIRE
21 CENTER COULD POTENTIALLY TRIGGER THE ESTABLISHMENT OF THAT WIRE
22 CENTER AS A "COMPETITIVE ZONE." DID QWEST RESPOND TO THIS CRITICISM IN
23 ITS REBUTTAL TESTIMONY?

A. Yes. Similar criticisms of the Qwest "competitive zone" proposal were advanced by a number of parties in this proceeding.[57] In his Rebuttal, Mr. Teitzel stated:

> For expansion of competitive zones in the future, Qwest would be required to notify the Commission that competition exists in the form of at least one of the three criteria specified in my Direct testimony in a particular wire center. This notification would certainly have to pass the "red face" test. It would be based on much stronger evidence than a competitor serving one customer in a wire center. That is not even reasonable.[58]

I agree with Mr. Teitzel that it "is not even reasonable" that Qwest would be allowed to establish a wire center as a competitive zone if a competitor were serving only one customer in a wire center. However, that unreasonable rule is exactly what Qwest is proposing. Once such an unreasonable rule is in place, Qwest could implement that rule.

Q. ON PAGE 9 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT THE COMMISSION SHOULD "REST ASSURED" THAT QWEST'S REQUESTS TO CLASSIFY WIRE CENTERS AS "COMPETITIVE ZONES" WOULD BE SUPPORTED BY "MUCH MORE ROBUST" EVIDENCE OF COMPETITION THAN YOUR "EXTREME" EXAMPLE. PLEASE COMMENT.

A. Once the rules are in place, there would be no valid basis to effectively challenge Qwest's utilization of those rules. The time to stop an improper rule is when it is proposed, not later when Qwest is making changes which are improper, but which are allowed by that rule. I urge the Commission not to adopt improper rules. Qwest is attempting to have the rules set very lax, but assure the Commission that those lax rules are meaningless, because supposedly Qwest would not fully implement them. Obviously, rules that do not provide the proper guidelines

[57]See Dunkel (Staff) Direct Testimony page 1, line 10, Selwyn (AT&T) Direct Testimony, page 22. line 1, Johnson (RUCO) Direct Testimony, page 24.

should not be adopted. Adopting improper rules based upon Qwest's assurance that it does not "intend" to actually utilize those rules, or utilize them to the full, possible extent, is improper.

In addition, once the rules are in place, the "intentions" can change. In the future, Qwest could simply declare that "conditions" have changed, and therefore they are going to implement the rules.

If a business personal verbally promised one thing, but asked you to sign a written contract saying something different, the wise consumer would insist that the written contract reflect the "verbal understanding." The same is true in this case.

Q. MR. TEITZEL HAS FOCUSED ON THE FACT THAT YOU AND OTHER PARTIES REFERRED TO "ONE" CUSTOMER SERVED BY A COMPETITOR OR "ONE" SERVICE BEING OFFERED BY A COMPETITOR AS BEING AN UNREASONABLE STANDARD FOR CLASSIFYING A WIRE CENTER AS A COMPETITIVE ZONE. PLEASE COMMENT.

A. The point is, the requirements that Qwest has proposed in order to have a service classified as a "competitive zone" are almost trivial requirements that do not require the demonstration of effective competition, or effective competition for all of the services that would be classified as competition.

[58]Teitzel Rebuttal Testimony, page 43, line 18.

Q. ON PAGE 58 OF HIS REBUTTAL, MR. TEITZEL PROVIDES AN EXAMPLE TO DEMONSTRATE THAT RESALE "IS MUCH MORE PREVALENT IN PHOENIX AND TUCSON EXCHANGES THAN IT IS IN THE REST OF THE STATE." WHAT DOES MR. TEITZEL'S EXAMPLE ACTUALLY DEMONSTRATE?

A. Mr. Teitzel provided the following example in his Rebuttal:

> This data shows that resale, just one indicator of a competitive market, is extremely more prevalent in Phoenix and Tucson exchanges than it is in the rest of the state. For example, there were ** ** residence access lines resold in Bisbee, contrasted to ** ** residence access lines resold out of the Chandler Main wire center during this time period.

What Mr. Teitzel's example demonstrates is the tiny amount of resale competition in these two wire centers at this time.[59] The fact that resale in the Bisbee wire center was even closer to non-existent than it was in the Chandler-Main wire center does not prove that meaningful competition exists in the Chandler-Main wire center.

Q. ON PAGE 5 OF HIS REBUTTAL, MR. TEITZEL ARGUES THAT BY CHARGING A LOWER RATE FOR RESIDENTIAL BASIC EXCHANGE SERVICE THAN QWEST DOES, COX HAS "USED THE REGULATORY CONSTRAINTS QWEST MUST ADHERE TO IN ORDER TO FURTHER THEIR MARKETPLACE ADVANTAGE." DO YOU BELIEVE THAT COX HAS A "MARKETPLACE ADVANTAGE" OVER QWEST?

A. No, exactly the opposite. Qwest has the "marketplace advantage" of starting out by serving all of the customers. Competitors like Cox have to actually lure customers away from Qwest to become their service provider. Therefore, it is not surprising that a competitor would have to

1 offer a lower price than Qwest in order to lure the customer away. If a competitor offered a
2 higher price than Qwest, or were to simply match the price charged by Qwest, there would be no
3 price advantage to cause customers to change service providers. Therefore, the competitor is at a
4 clear market disadvantage compared to Qwest. In order to lure customers away from Qwest,
5 competitors have to charge lower prices or offer some other advantage over Qwest.
6
7 Q. ON PAGE 6 OF HIS REBUTTAL, MR. TEITZEL ARGUES THAT YOU HAVE NOT
8 PROVIDED ANY "FACTUAL SUPPORT" FOR YOUR TESTIMONY AT PAGE 9 OF YOUR
9 DIRECT, THAT QWEST'S "COMPETITIVE ZONE" PROPOSAL WOULD PROVIDE
10 QWEST WITH THE OPPORTUNITY TO HELP ASSURE THAT COMPETITORS WERE
11 NOT SUCCESSFUL. IN YOUR TESTIMONY, DID YOU SPECIFICALLY EXPLAIN HOW
12 THIS COULD OCCUR IF QWEST'S PROPOSAL IS ADOPTED?
13 A. Yes. Not only did I explain how Qwest's proposal would allow Qwest to use its pricing
14 flexibility to discriminatory price services to disadvantage its competitors, I provided a specific
15 example of how Qwest could implement such a strategy in the limited geographic areas where
16 Cox is providing competing telecommunications services in Arizona. On page 9 of my Rate
17 Design Direct, I pointed out that in the limited areas where it offers services, Cox
18 Communications offers residential basic exchange service at $11.75 per month to its cable
19 subscribers (and at $13.00 per month to its non-cable subscribers). Therefore, Qwest's current
20 rate of $13.18 is already 12% higher than the $11.75 rate being offered by Cox. Under the

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[59]For example, according to Qwest's response to Request WDA 37-001, Attachment A, the total number of lines in the Bisbee wire center was ** ** and the total number of lines in the Chandler-Main wire center was ** ** for this same period.

1 Qwest "competitive zone" proposal, Qwest could choose to underprice Cox or remove any Cox
2 pricing advantage in those zones in which Cox competes.
3
4 In fact, as discussed in the prior question, on page 5 of his Rebuttal, Mr. Teitzel is complaining
5 that "regulatory constraints" on Qwest are apparently preventing Qwest from lowering its price
6 to compete with Cox. The "competitive zone" strategy would allow Qwest to do this in those
7 areas where Cox was a competitor, while Qwest would not have to also lower rates, or could
8 even raise rates, in areas where Cox or similar competition did not exist. This type of
9 discrimination impedes competition, and would also result in the extraction of monopoly profits
10 in areas where the Company has an effective monopoly.
11
12 In the other so-called "competitive zone" wire centers, where Cox or an equivalent competitor
13 was not providing competing residential basic exchange services, Qwest could charge any
14 residential basic exchange rate it wanted to, up to a maximum of $19.00.[60]
15
16 Q. IN HIS REBUTTAL, MR. TEITZEL DISCUSSES THE "COMPETITIVE ZONE"
17 REGULATION THAT QWEST IS OPERATING UNDER IN THE STATE OF OREGON.[61] IS
18 THE "COMPETITIVE ZONE" PRICE STRUCTURE IN OREGON THE SAME AS THE
19 COMPETITIVE ZONE REGULATION QWEST IS SEEKING IN THIS PROCEEDING?
20 A. No. The Oregon "competitive zone" regulation states that the rates for competitive zone services
21 cannot be lower than the total service long run incremental costs of providing the services, and
22 the rates cannot be higher than the tariff rates that were in effect when the competitive zones

[60]Teitzel Direct Testimony, page 18.
[61]Teitzel Rebuttal Testimony, p.6 and pp. 34-35.

were established, unless authorized by the commission. In response to Data Request WDA 24-6 in this proceeding, Qwest provided a copy of the Oregon competitive zone regulation statute. The Oregon "competitive zone" statute reads as follows:

> The price and terms of service offered by a telecommunications utility for a competitive zone service within a competitive zone may differ from that outside the zone. However, the price for a competitive zone service within the zone may not be lower than the total service long run incremental cost, for nonessential functions, of providing the service within the zone and the charges for essential functions used in providing the service, but the commission may establish rate for residential local exchange telecommunications service at any level necessary to achieve the commission's universal service objectives. Within the zone, the price of a competitive zone service, or any essential function used in providing the competitive zone service, may not be higher than those prices in effect when the competitive zone was established, unless authorized by the commission.[62] (Emphasis added)

The Qwest "competitive zone" proposal in this proceeding differs from the Oregon competitive zone service regulation in two key respects, in that Qwest is requesting that the minimum prices for services could be below the total service long run incremental cost[63], and the maximum prices for service could be up to double the prices that are in effect when the competitive zone is established (up to $19.00 for residential basic exchange service), without specific formal Commission approval.[64]

Q. ON PAGE 44 OF HIS REBUTTAL, MR. TEITZEL CLAIMS "QWEST WILL CONTINUE TO ADHERE TO EXISTING RULES PROHIBITING CROSS-SUBSIDIZATION IF COMPETITIVE ZONES ARE GRANTED." DOES QWEST'S PROPOSED PRICE FLOOR FOR COMPETITIVE ZONE SERVICES "ADHERE TO EXISTING RULES PROHIBITING SUBSIDIZATION?"

[62]Oregon Statute, ORS 759.050 (5)(b).
[63]Teitzel Direct, page 20, lines 7-9.

A. No. The rule that Mr. Teitzel is referring to is ACC Rule R 14-2-1109 (c).[65] This rule specifically requires that each competitive telecommunications service must be priced equal to or above the TSLRIC of that service. This rule states as follows:

> R14-2-1109 (c) No Cross-Subsidization.
>
> A competitive telecommunications service shall not be subsidized by any rate or charge for any noncompetitive telecommunications service(s). To insure that no cross-subsidization exists, each competitive telecommunications service must provide revenues that equal or exceed the company's total service long-run incremental cost of providing the service. (Emphasis added)

Contrary to the ACC's rule quoted above, the Qwest "competitive zone" proposal would allow Qwest to price competitive services below the TSLRIC of providing the service. Mr. Teitzel described Qwest's proposal in his Direct Testimony in this proceeding:

> Prices for specific services may be offered below Total Service Long Run Incremental Cost (TSLRIC) in a competitive zone only as long as the total revenue for the customer or group of customers is above TSLRIC.[66] (Emphasis added)

Since Qwest is proposing to be allowed to price services below TSLRIC in a competitive zone, Qwest's proposal is not consistent with the ACC rule that Mr. Teitzel claims Qwest will adhere to if the "competitive zone" proposal is granted. Nothing in the Commission's rule indicates that pricing a competitive service below TSLRIC is permissible "as long as the total revenue for the customer or group of customers is above TSLRIC."

Q. MR. TEITZEL STATES,

> I proposed the price cap (doubling existing or proposed rates) as a means of addressing Commission and consumer concern about potential price increases if the competitive

[64]Teitzel Direct, page 20, lines 11-16.
[65]See footnote 13 of Mr. Teitzel's Rebuttal Testimony.
[66]Teitzel Direct Testimony, page 20, lines 7-9.

zone proposal is approved. It is not Qwest's intent to increase rates to the identified price caps - again, market forces will best determine appropriate prices - but the caps will provide an outside limit for any future price increases.

SHOULD THIS COMMISSION ADOPT QWEST'S PROPOSAL BASED UPON MR. TEITZEL'S PLEDGE THAT QWEST DOES NOT "INTEND" TO DOUBLE THE RATES?

A. No. If the understanding is that Qwest does not "intend" to double the rates, then the logical way to assure that intention is followed is to set the rules so that they cannot double the rates. If Qwest is not intending to take advantage of this requirement, then failing to pass that requirement would not harm Qwest (since they are not going to use it anyway), but it would certainly alleviate the valid concern of the consumers that such an expanded price cap would create. Further, "intentions" can subsequently change, and often times do. In the future, the company could raise prices and simply explain that "conditions" had changed since this "intent" was previously expressed. The fact is that if Qwest's proposal is adopted, Qwest would be able to double its service rates, and would be in full compliance with its tariff by doing so. As discussed in my Rate Design Direct testimony, many of the customers within the "competitive zone" areas proposed by Qwest would actually have no effective choice of service provider, and therefore Qwest's potential "doubling" of the rates is even more troubling.[67]

Q. ON PAGE 4 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT HE IS "UNCLEAR AS TO WHAT MR. DUNKEL'S POSITION IS RELATIVE TO THE EFFECT COMPETITIVE ZONES WILL HAVE ON COMPETITION." MR. TEITZEL STATES "ON ONE HAND, IT APPEARS HE IS CONCERNED THE COMPANY WILL RESPOND TO COMPETITION BY LOWERING RATES AND ON THE OTHER HAND, HE FEARS THE COMPANY WILL INCREASE RATES." PLEASE RESPOND.

1 A. Mr. Teitzel is correct. I have concerns with the fact that Qwest's "competitive zone" proposal
2 would provide Qwest with both the ability to reduce rates for the geographic areas or for the
3 services that are subject to greater competition and the ability to greatly increase the rates or for
4 the services that are subject to less competition. For example, in the so-called competitive zone"
5 wire centers where a facilities-based provider like Cox is providing competing residential basic
6 exchange service, Qwest could greatly reduce the residential basic exchange rates in order to
7 disadvantage Cox, and harm the development of competition. At the same time Qwest could
8 greatly increase the rates for residential basic exchange service in the so-called "competitive
9 zone" wire centers where there are no facilities-based competitors operating (e.g. competition is
10 limited to resale competition). The price discrimination that the zone proposal would allow
11 could be the worst of both worlds for the public interest. It would allow Qwest to impede
12 competition by lowering prices where competition does exist, while at the same time extracting
13 monopoly profits elsewhere.
14
15 Q. ON PAGE 12 OF HIS REBUTTAL, MR. TEITZEL ARGUES THAT COMPETITION USING
16 RESALE AND UNBUNDLED NETWORK ELEMENTS SHOULD BE CONSIDERED
17 EFFECTIVE COMPETITION. IS COMPETITION USING RESALE AND UNBUNDLED
18 NETWORK ELEMENTS REALLY EFFECTIVE COMPETITION?
19 A. No. As I discussed beginning on page 15 of my Direct Testimony, resellers resell services that
20 are provided by Qwest. The wholesale rate the resellers pay to Qwest represents the resellers'
21 major cost of doing business. Since Qwest's retail rates are simply a function of Qwest's retail
22 rates (residential wholesale rates are discounted 12% off retail rates and business rates are
23 discounted 18%), if Qwest increases its retail rates, the wholesale rates the resellers must pay

[67]Dunkel Direct Rate Design testimony, Page 32 and pages 12-23.

Qwest increases by the same percent. If a hypothetical LEC were to double its retail service rates, that would result in the wholesale rates also doubling. Under these conditions, the cost that makes up approximately 88% of the resellers' cost of doing business (i.e. the wholesale rate it must pay the LEC), would automatically double when the LEC doubled its retail rate, therefore the reseller would have no real choice but to follow the LEC's lead by increasing rates it charges consumers. Due to the fact that a reseller's cost of doing business depends so greatly on what retail rates the LEC charges, the availability of resellers cannot provide customers with any significant protection from improper price increases by the LEC.

Q. ON PAGE 48 OF HIS REBUTTAL, DR. TAYLOR STATES:

> Thus, in time as a reseller or UNE-user takes enough customers away from Qwest for it to be able to deploy its own facilities and provide its own services, Qwest's loss from losing a customer will include not merely the spread between retail and wholesale revenues associated with the access line but also all other service revenues and contribution that previously accrued from that customer.

PLEASE RESPOND.

A. In time, it is possible that resellers could potentially gain a large enough customer base to justify deploying facilities that may ultimately lead to some price-constraining effective competition to Qwest in Arizona. However, the fact is that the presence of competition in Arizona is just beginning. For those services which are not "competitive" under the ACC Rules, there does not yet exist sufficient price-constraining effective competition that would protect customers from improper rate increases. In fact, Qwest's "competitive zone" proposal would give Qwest greater flexibility to limit the growth of competition through pricing that discriminates based solely on the level of competition, as previously discussed. Therefore, it would be improper to allow

Qwest to implement its "competitive zone" proposal on the basis of the limited competition that exists today in Arizona.

Q. ON PAGE 9 OF HIS REBUTTAL, MR. TEITZEL STATES,

> In addition, the wire centers identified in my direct testimony as possessing a sufficient degree of competition to warrant classification as competitive zones all have a large number of customers currently being served by facilities-based alternative providers.

DO THE WIRE CENTERS THAT QWEST PROPOSES BE MADE "COMPETITIVE ZONES" HAVE A LARGE NUMBER OF CUSTOMERS BEING SERVED BY FACILITIES-BASED PROVIDERS?

A. No. As shown on my direct testimony Schedule WDA-16, a mere ** ** of the residence lines in the 23 wire centers that Qwest proposes be classified as residential "competitive zones" were ported to CLECs as recently as April, 2000. For business, only ** ** of the total business lines in the 49 wire centers that Qwest proposes be classified as business "competitive zones" were "lost" to CLECs as of April, 2000, and there is no reason to believe that even all of these were lost to "facility based" providers.[68] Therefore, the data in the record in this proceeding clearly indicates that the very few of the customers in the wire centers that Qwest proposes be classified as "competitive zones" are actually being served by competitors to Qwest.

Q. BEGINNING ON PAGE 41 OF HIS REBUTTAL, DR. TAYLOR POINTS OUT THAT IN 1995, WHEN AT&T WAS DECLARED A NON-DOMINANT CARRIER BY THE FCC, THE HHI WAS 3,197 IN THE INTERSTATE LONG DISTANCE MARKET. PLEASE RESPOND.

[68]As shown on Dunkel direct Schedule WDA-16, only ** ** of the total residential lines and only ** ** of the business lines in the "competitive zone" wire centers were resold lines. A mere ** ** of the Qwest residence and business lines in the "competitive zone" wire centers were sold as UNE loops.

1 A. In my Rate Design Direct testimony, I demonstrated that the residential wire centers which
2 Qwest proposes be immediately declared "competitive zones" have an HHI of over ** **.[69]
3 Thanks to the estimate provided by Dr. Taylor, we now know that the HHI market concentration
4 index in the wire centers which Qwest proposes be immediately declared as "competitive zones"
5 is nearly ** ** the HHI market concentration index in the interstate long distance
6 market when the FCC declared AT&T as a non-dominant carrier.
7
8 It is clear that the level of competitiveness for basic exchange service in these exchanges is
9 nowhere near the level of competition that must exist for a market to reasonably be considered
10 competitive, even using the standard that Dr. Taylor himself presented.
11
12 **D. HIGHER TOLL REVENUES IN RURAL AREAS ACT TO OFFSET THE**
13 **HIGHER COSTS OF SHARED FACILITIES IN RURAL AREAS.**
14
15 Q. ON PAGE 22 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT UNLESS ZONE
16 INCREMENT CHARGES THAT APPLY TO BASIC EXCHANGE SERVICE ARE
17 INCREASED TO REFLECT THE HIGHER UNE LOOP RATES IN RURAL AREAS
18 RESULTING FROM DE-AVERAGING, COMPETITORS WILL BE DRIVEN AWAY FROM
19 SERVING RURAL AREAS. PLEASE COMMENT.
20 A. As I discussed on pages 73-77 of my Rate Design Direct testimony in this proceeding, Qwest's
21 arguments are based on the faulty premise that the loop cost (as identified by the UNE loop
22 rates) is directly a cost of only basic exchange service. On my direct testimony Schedule WDA-
23 17, I graphically demonstrated the fallacy of Qwest's premise. As shown on Schedule WDA-17,
24 the loop facilities are used by and are required to provide a whole family of services. Therefore,

[69]Dunkel Direct, page 19, line 18.

1 the UNE loop costs are not directly related to just the basic exchange service rates. In addition,
2 twenty-five percent of the loop costs are separated to the interstate jurisdiction. In any areas
3 where the loop costs are higher, that means the dollar amount per loop allocated to the interstate
4 jurisdiction is higher than in other areas where the loop cost is lower. The intrastate costs that
5 remain are recovered across the entire family of intrastate services that share the loop facilities,
6 not just one of the services (basic exchange service) that shares the loop facilities.
7
8 Q. IN YOUR DIRECT TESTIMONY, YOU DEMONSTRATED THE FACT THAT THE PER-
9 LINE INTRASTATE REVENUES ARE ALREADY MUCH HIGHER IN RURAL AREAS
10 THAN IN URBAN AREAS, PRIMARILY BECAUSE RURAL CUSTOMERS HAVE
11 HIGHER LEVELS OF TOLL AND SWITCHED ACCESS. DOES YOUR TESTIMONY ON
12 THIS ISSUE REBUT MR. TEITZEL'S CLAIM THAT THE ZONE INCREMENT CHARGES
13 MUST BE INCREASED TO PREVENT COMPETITORS FROM BEING DRIVEN AWAY
14 FROM SERVING RURAL AREAS?
15 A. Yes. As I discussed beginning on page 74 of my Rate Design Direct testimony, rural customers
16 generally have a more limited local calling area than do urban customers. The result of this fact
17 is that rural customers pay toll rates for calls which an urban customer pays local rates.
18
19 In my Rate Design Direct testimony (pages 75-77), I provided the percent of the total intrastate
20 minutes that are intrastate toll and switched access in the urban "Phoenix Main" wire center, and
21 compared that data to the percent of the total intrastate minutes that are intrastate toll and
22 switched access in the rural Whitlow, Payson and Casa Grande wire centers.
23

	Urban "Phoenix Main" Wire Center	Rural Whitlow Wire Center	Rural Payson Wire Center	Rural Casa Grande Wire Center
# Lines in Local Calling Area		** **	** **	** **
% of Intrastate Minutes That are Toll/Access	** **	** **	** **	** **

It is not surprising that the average rural customers' toll bills are generally much higher than the urban customers' toll bills. Since competitors have the opportunity to receive higher toll/switched access revenues for rural customers compared to urban customers, this would offset at least part of a higher UNE loop rate in rural areas. When a competitor is making the decision whether or not to serve a particular areas or customer using the UNE loops, the rational competitor will consider the total revenues from the whole package or family of services that the competitor would receive from a customer (including the toll/switched access revenues), not just the revenue it will receive from just basic exchange service. Even if the price of an unbundled loop is higher in a more rural area as compared to an urban area, the competitors can expect to receive higher intrastate toll and switched access revenues in those rural areas, thereby offsetting some or all of the higher cost of serving those rural customers.

Q. ON PAGE 24 OF HIS REBUTTAL, MR. TEITZEL STATES "AT PAGE 81, MR. DUNKEL ALLEGES THAT QWEST CAN EXPECT TO REALIZE AN INCREASE IN TOLL REVENUES RESULTING FROM ITS PROPOSED DECREASE IN TOLL PRICES." DID YOU MAKE THIS ALLEGATION IN YOUR TESTIMONY?

1 A. No. Mr. Teitzel has mis-understood (or mis-stated) my testimony. My testimony on this issue
2 focuses on the inconsistencies between Qwest's argument for the toll price reduction and Qwest's
3 revenue impact calculation for that reduction. Qwest's claimed basis for reducing intrastate toll
4 rates is that Qwest will be more successful in the toll market at the new lower rates than they
5 would be at the existing rates. This position effectively argues that although the prices would be
6 lower, the lower prices would attract more customers, and therefore, Qwest would be as well or
7 better off. However, this position is inconssitent with their revenue impact calculation.
8 According to Qwest's revenue calculation, the result of the proposed rate change would be a
9 reduction in the revenues received from intrastate toll services. One of the two following
10 conditions have to be true: (a) If it is true that Qwest will be better off in the toll market at the
11 lower price than at the current price, that means that Qwest will generate as much or more
12 revenues at the new rates than they would at the current rates. If this is true, then Qwest should
13 go ahead and lower its prices, but there is no revenue reduction that results. (b) If Qwest truly
14 believes (as shown by its revenue impact calculation) that it will be worse off in the toll business
15 if it lowers its prices than if it does not lower its prices, then either it should not lower its toll
16 prices, or if it does, it should not expect the ratepayers for monopoly services to offset the
17 revenue loss that would result from the Company's decision to lower its toll prices.
18
19 Under either scenario (a) or (b) above, Qwest is not entitled to receive money from the monopoly
20 services in order to support a change in price in the competitive toll services.
21
22 Q. IF QWEST TRULY BELIEVES THAT IT WILL BE BETTER OFF IN THE INTRASTATE
23 TOLL MARKET AT ITS PROPOSED RATES THAT AT THE CURRENT RATES,

1 COULDN'T QWEST IMPLEMENT ITS PROPOSED RATES OUTSIDE OF THIS

2 PROCEEDING WITHOUT COMMISSION APPROVAL?

3 A. Yes. As I pointed out on page 80 of my Rate Design Direct testimony, the ACC has already

4 determined that Qwest's intrastate toll services are competitive, and afforded pricing flexibility.

5 In addition, Qwest has admitted that Qwest could make the proposed rate reductions outside of

6 this rate case without the Commission's approval. In response to discovery, Qwest stated:

7

8 With the pricing flexibility currently afforded toll services, U S WEST could certainly
9 reduce its toll rates outside of this rate case without Commission approval.[70]
10
11

12 Since Qwest can already reduce its intrastate toll rates outside of this rate case and without

13 Commission approval, Qwest is actually seeking to increase the rates for non-competitive

14 services to fund its proposed rate reductions for a competitive service (i.e. intrastate toll).

15

16 Q. WOULD IT BE APPROPRIATE TO ALLOW QWEST TO INCREASE THE RATES FOR

17 NON-COMPETITIVE SERVICES TO FUND COMPETITIVE RATE REDUCTIONS?

18 A. No. Increasing the rates for non-competitive services to offset rate reductions for competitive

19 services runs counter to the whole concept of designating services as competitive. Once the

20 Qwest executives have been given substantial price flexibility for the competitive services, they

21 are the ones who should be managing the prices (within the specified limits).[71] However, instead

22 of the Qwest executives managing their toll services, they are coming back to the Commission,

23 with their hat in their hand, asking the Commission to give them money to be raised from other

24 customers' rates, in order to support a lowering of the Qwest toll rates in the competitive toll

[70]Qwest's response to data request WDA 2-21(b).

1 market. In the past, Qwest had asked for the ability to lower toll rates within limits without
2 Commission approval, and the Commission gave it that authority. If Qwest now thinks a toll rate
3 reduction is appropriate, it can do so without Commission approval. One of the key expected
4 benefits of competition is that customers will enjoy lower rates. That key intended benefit will
5 be lost if any rate reductions for competitive services are simply offset by increased rates for
6 non-competitive services.
7
8 **E. DIRECTORY ASSISTANCE**
9
10 Q. ON PAGE 88 OF YOUR DIRECT TESTIMONY, YOU INDICATED THAT QWEST
11 MISCALCULATED THE REVENUE IMPACT OF ITS DIRECTORY ASSISTANCE
12 PROPOSAL. ON PAGE 25 OF HIS REBUTTAL, MR. TEITZEL ARGUES THAT QWEST'S
13 REVENUE IMPACT IS ACCURATE. IS THE QWEST REVENUE IMPACT
14 CALCULATION ACCURATE?
15 A. No. From January through October 21, 1999, there was a 12 cent per call surcharge on the DA
16 rate. The total rate billed during that period was 59 cents per billed call. After October, the rate
17 reverted to its present rate of 47 cents per billed call. The problem with Qwest's calculation is
18 that Qwest has mishandled the surcharge revenues. Qwest has included the revenues from that
19 surcharge in the "present" revenues it used for its calculation. The difference between the Qwest
20 calculation and the correct calculation is shown below:
21
22
23

[71] Those Commission-imposed limits are not at issue in this proposal, to the best of my knowledge.

Revenue Impact of Increasing the DA Rate
From 47 Cents (With One Call Allowance) To 85 Cents (With No Call Allowance)

	Correct Calculation		Qwest Calculation	
1. "Proposed" Revenue at 85 Cents (with no Call Allowance) using 1999 Quantities	**	**[72]	**	**
2. "Present" DA Revenue Received in 1999 from the 47 cent Rate (with One Call Allowance)	- **	**		
2a. "Present" Revenue at 59 Cents for Most of 1999 (including 12 cent surcharge)			- **	**
3. Revenue Loss from Providing Complete-A-Call at no Additional Charge	- **	**	- **	**
4. Increase from Change in Rate (and Change in Call Allowance)	**	**	**	**

This calculation is shown in more detail on Schedule WDA-31.

The "present" revenues Qwest is using are the revenues that were generated by a 59 cent rate applying most of the year, not the 47 cent present rate. Said another way, if the proposal was to increase the rates from 59 cents per billed call (with a one call allowance), to 85 cents per call, then the revenue impact Qwest presented would be approximately correct.[73] However, the proposed DA increase in this case is to increase the present rate, which is 47 cents (with a one call allowance), to 85 cents (with no call allowance). This has a larger revenue impact than Qwest has calculated. The revenue impact of the current proposal is $23.1 million. Quite simply, Qwest has mishandled the impact of the revenues from the surcharge in this calculation.

[72] This number is exactly as calculated by Qwest.
[73] Technically, it would be correct for 59 cents applying January through October 21, and then a 47 cent rate

F. PRIVACY LISTINGS

Q. ON PAGE 26 OF HIS REBUTTAL, MR. TEITZEL ARGUES THAT QWEST'S PROPOSED RATE INCREASES FOR PRIVACY LISTINGS ARE APPROPRIATE BECAUSE THEY ARE "DISCRETIONARY" SERVICES, SIMILAR TO CUSTOM CALLING SERVICES. DO YOU AGREE?

A. No. As I indicated on page 91 of my Rate Design Direct testimony, an indeterminate number of customers who subscribe to privacy listings have themselves been targets of harassment or worse. These customers depend upon privacy listings for their own protection, and are therefore customers of a captive market. Since these customers must pay whatever rate Qwest charges for privacy listings to protect themselves from being targets of harassment, privacy listings are not appropriately considered to be "discretionary" in nature. Rather, many subscribers to privacy listings are captive ratepayers, who are inappropriate targets for extracting high levels of contribution. As I indicated on page 90 of my direct testimony, according to the costs presented in Mr. Thompson's Supplemental Direct Testimony Exhibit JLT-1, page 15, the cost to provide Non-Published and Non-Listed privacy listing services is ** **. The current rates for Non-Published Service ($1.90 for residence and $1.80 for business customers) and Non-Listed Service ($1.55 for residence customers and $1.45 for business customers) are already providing considerable contribution above their direct costs.[74]

applying after that.

[74]Teitzel Direct Testimony, page 58, line 16.

G. CONTRARY TO MR. TEITZEL'S CLAIMS, TA96 REQUIRES AFFORDABLE UNIVERSAL SERVICE FOR ALL CUSTOMERS

Q. ON PAGE 26 OF HIS REBUTTAL, MR. TEITZEL CLAIMS THAT ENSURING THAT BASIC EXCHANGE SERVICES ARE AFFORDABLE TO ALL CUSTOMERS "WAS A VALID CONCEPT IN THE PAST", BUT "NO LONGER FITS IN THE POST-TA 1996 ENVIRONMENT." PLEASE RESPOND.

A. The TA96 sets forth the following specific requirements:

> §254(b) Universal Service Principles.-- The Joint Board and the Commission shall base policies for the preservation and advancement of universal service on the following principles:
>
> (1) QUALITY AND RATES.-- Quality services should be available at just, reasonable, and affordable rates.

Therefore, contrary to Mr. Teitzel's claims, making universal service affordable for all not only "fits in the post-TA 1996 environment", but it is a specific requirement in the TA96.

Q. MR. TEITZEL CLAIMS THAT YOU "SEEM TO DISMISS TARGETED ASSISTANCE PLANS FOR CUSTOMERS WITH LIMITED MEANS."[75] DID YOU DISMISS THE ASSISTANCE PLANS?

A. No. In my Rate Design Direct testimony, I acknowledged that these programs are helpful, but that they are not the full answer to the promotion of universal service, since they target only very narrowly defined groups of customers. On page 108 of my direct, I stated the following:

> The fact is that programs like Lifeline and TAP, which provide assistance to low income consumers are helpful, however, such need-based plans are not the full answer. Many of the customers that would qualify for such programs, for a number of different reasons do not receive assistance from these programs. For example, they may not be aware of these

[75]Teitzel Rebuttal, page 26, line 18.

programs. may not be willing to go through the administrative procedures required to qualify or may for personal reasons be unwilling to accept assistance on the basis of their income.

In addition, in my direct, I pointed out that the total number of customers that subscribe to Lifeline service in Arizona is 4,447 and the total number of subscribers who receive assistance from the TAP program is 3,835[76], whereas Qwest disconnects over ** ** residential customers per year for non-payment at current rates.[77] Based on these facts, it is clear that there are many residential subscribers that are having trouble paying their bills at current rates, despite the fact that Lifeline and TAP do help some subscribers.

H. PRIVATE LINE

Q. ON PAGE 13 OF HIS REBUTTAL, MR. MCINTYRE STATES "MR. DUNKEL, FOR THE STAFF AGREES THAT PRIVATE LINE SERVICES ARE COMPETITIVE." DO YOU HAVE ANY QUALIFYING REMARKS TO ADD TO THIS STATEMENT?

A. Yes. As pointed out on page 104 of my Rate Design Direct testimony, this Commission has classified the interexchange private line services as competitive and flexibly priced. The Commission has not classified local private line services as competitive or flexibly priced. Therefore, I only agree that interexchange private line services are competitive and flexibly priced in Arizona.

Q. ON PAGE 17 OF HIS REBUTTAL, MR. MCINTYRE REFERS TO YOUR PROPOSED INCREASE FOR INTRASTATE PRIVATE LINES SERVICES WHEN HE STATES "MR.

[76]Dunkel direct testimony, page 107, line 18.

1 DUNKEL ALSO SUGGESTS THAT SUCH AN INCREASE IN RATES MAY NOT BE
2 SUSTAINABLE IN A COMPETITIVE MARKET AND IT WOULD BE UP TO QWEST
3 MANAGEMENT TO DECIDE IF SUCH A RISK SHOULD BE TAKEN." DID YOU
4 SUGGEST THAT THE INCREASE IN RATES MAY NOT BE SUSTAINABLE?
5 A. No. This is simply a mis-statement of my testimony. In my direct testimony, I pointed out that
6 Qwest's intrastate private line services are currently being provided below cost, and that if Qwest
7 chooses to price its competitive services at a loss, that shortfall should not fall on non-
8 competitive services. The specific statements I made in my Rate Design Direct are as follows:

9 The revenue requirement that is being considered in this case includes in excess of **
10 ** in private line revenue requirement. However, the private line revenues are
11 only ** **. Therefore, if the rates are not increased, or a revenues imputation
12 is not made, that will mean that the rates for non-competitive services will have to be
13 priced to cover approximately ** ** of private line competitive service
14 revenue requirement. If USWC chooses to price its competitive services at a loss, that is
15 a USWC management decision which they are allowed to make under flexible pricing.
16 However, in no even should the rates for other non-competitive services be set to remove
17 the private line revenue requirement that the USWC management has elected to not
18 recover in the private line rates.[78]
19

20 Q. IN YOUR TESTIMONY, YOU STATED THAT THE SPECIAL ACCESS BYPASS OF
21 SWITCHED ACCESS SERVICE WAS ECONOMICAL ONLY FOR HIGH USERS. MR.
22 MCINTYRE DISPUTES THIS, AND CLAIMS THAT SINCE A TYPICAL DS1 IS PRICED
23 ABOUT $250 PER MONTH, "ANY CUSTOMER WHO GENERATES MORE THAN $250
24 PER MONTH OF TOLL, AND MANY CUSTOMERS DO, IS AN EXCELLENT TARGET
25 FOR SUCH BYPASS."[79] IS MR. MCINTYRE'S CALCULATION VALID?
26 A. No. If such a customer paid $250 for a special access line, that would not eliminate their toll bill.
27 They would still have to pay for toll, although slightly less, assuming the carrier passed on the

[77]Dunkel direct testimony, page 108, line 19.
[78]Dunkel Direct Testimony, page 105, lines 8-18.

switched access savings. In fact, as Mr. McIntyre stated on page 4 of his Rebuttal, the use of a dedicated circuit does not eliminate the toll charges from the IXCs, but will only reduce them.

> The carrier saves the switched access charges and passes some of these savings along to the customer in the form of reduced toll charges.[80]

The special access line would carry the call only from the customer premises to the IXC's point of presence (POP). The customer would still have to pay the IXC toll rates to carry the call from the POP to the other customer being called.

I will now take Mr. McIntyre's example of a customer paying $250 per month in toll rates. If that customer subscribed to a $250 per month special access circuit, they would have to pay $250 per month for the special access, and still have to pay the IXC for toll service, although it presumably would be a figure that would be somewhat less than the $250 per month toll bill they had previously been paying. As a result, the customer's total bill would increase drastically. Such a customer is not an "excellent target for such bypass."

Q. STARTING AT PAGE 16, LINE 5 OF HIS REBUTTAL, MR. WU STATES HE HAS RECALCULATED THE DEPRECIATION RATE IN THE GENERAL PURPOSE COMPUTER ACCOUNT. PLEASE COMMENT.

A. In this calculation, Mr. Wu adjusted the depreciation reserve for the claimed impact of Mr. Brosch's disallowance of $24 million of older investments. Mr. Wu alleges that removing those investments would result in a much higher depreciation rate in the General Purpose Computer account. This is not true for this account.

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[79] Page 5, McIntyre Rebuttal.

First of all, in his figures, Mr. Wu was using the depreciation rates that were calculated by applying the Commission approved parameters to the 1/1/97 investments and reserves. That is not a valid calculation for the reasons discussed in my Direct Depreciation testimony.

In addition, the Company had the depreciation rates turned "off" for the General Purpose Computer account for all of 1999.[81] Turning the account "off" means the Company did not accrue a depreciation expense, and did not place the depreciation accruals in the depreciation reserve for this account. The decision to turn the depreciation rates "off" is based upon an analysis of the reserve level as compared to the requirement. Had the old investments been previously retired, the reserve percent would have been lower, and the depreciation rates in this account should have stayed "on" in early 1999. Even with the $24 million removed, near the end of 1999 the account still would have reached full recovery, and should have been switched "off" late in 1999. Therefore, even with the $24 million retired, the Account still would have been "off" part of the time in 1999 to avoid over-recovery. Either way, by the end of 1999, the plant should be virtually fully depreciated. In short, by 12/31/99, the depreciation rate in this account would be the same either with or without the $24 million having been retired prior to the calculation. The only difference would be how long the account should have been "on" in 1999 before reaching full recovery.

I am addressing only the calculation of this depreciation rate for the General Purpose Computer account. Any other questions relating to this issue should be referred to Mr. Brosch, and are not being addressed in this testimony.

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[80] Page 4, lines 20-22, McIntyre Rebuttal.
[81] Qwest response to Request UTI 52-014, Attachment A, Note J.

1

2 Q. COULD YOU PLEASE BRIEFLY SUMMARIZE SOME OF YOUR MAJOR POSITIONS?

3 A. Yes. I recommend that the Modernization Accountability credit that I proposed in my Direct
4 Depreciation testimony be adopted. I recommend the depreciation rates shown on Schedule
5 WDA-29 be adopted. Those rates are properly calculated by applying the ACC approved
6 parameters to the 12/31/99 test year "per book" investments and reserves. In addition, the loop
7 facility is shared by several services. Therefore, Qwest's calculations which place the full cost of
8 the loop facility in the TSLRIC of just one of the services that shares that facility (basic
9 exchange service) are invalid. The contribution analysis contained in my Direct Rate Design
10 testimony is valid, and shows residential basic exchange service is not priced below its properly
11 calculated TSLRIC, and is producing a large contribution to the shared, joint, and common costs.
12
13 I recommend that these and other proposals contained in my Direct Depreciation and Rate
14 Design testimonies and in this testimony be implemented.
15
16 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
17 A. Yes.

09/06/00
10:54 AM
XREF: 03
PRES: 1991,SF,02
PROP: 1997,SG,82

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2421 AERIAL CABLE MET
CATEGORY: 2421 AERIAL CABLE MET
TABLE 2-VG/ELG

PROJECTION LIFE TABLE
AVERAGE SERVICE LIFE AND REMAINING LIFE BY AGE

PROJECTION LIFE TABLE PARAMETERS AVG LIFE 12.00

USING IOWA CURVE: R1.0

BEGINNING OF YEAR		AMOUNT RETIRED		ANNUAL ACCRUALS FOR BOY AGE A		ELG AVG.	ELG AVG.	VG
AGE	AMOUNT IN SERVICE	DURING YEAR (LIFE GROUP)	AGE OF AMOUNT RETIRED	EACH LIFE GROUP	FOR ALL REMAINING GROUPS	SER VICE LIFE	REMAIN ING LIFE	VINT REMAIN. LIFE
A	B	C=B-next B	D	E=C/D	F*	G=B/F	H=G-A	I#
0.0	100,000	1,100	0.5	2,199	15,292	6.54	6.54	12.00
0.5	98,901	2,389	1.0	2,389	13,093	7.55	7.05	11.63
1.5	96,512	2,637	2.0	1,319	10,705	9.02	7.52	10.91
2.5	93,875	2,881	3.0	960	9,386	10.00	7.50	10.20
3.5	90,994	3,123	4.0	781	8,426	10.80	7.30	9.51
4.5	87,871	3,392	5.0	678	7,645	11.49	6.99	8.83
5.5	84,479	3,717	6.0	620	6,967	12.13	6.63	8.16
6.5	80,762	4,098	7.0	585	6,347	12.72	6.22	7.51
7.5	76,664	4,522	8.0	565	5,762	13.31	5.81	6.89
8.5	72,142	4,969	9.0	552	5,197	13.88	5.38	6.29
9.5	67,173	5,414	10.0	541	4,644	14.46	4.96	5.72
10.5	61,759	5,822	11.0	529	4,103	15.05	4.55	5.18
11.5	55,937	6,164	12.0	514	3,574	15.65	4.15	4.66
12.5	49,773	6,408	13.0	493	3,060	16.26	3.76	4.18
13.5	43,365	6,521	14.0	466	2,567	16.89	3.39	3.72
14.5	36,845	6,477	15.0	432	2,101	17.53	3.03	3.29
15.5	30,367	6,256	16.0	391	1,670	18.19	2.69	2.89
16.5	24,111	5,846	17.0	344	1,279	18.86	2.36	2.51
17.5	18,265	5,246	18.0	291	935	19.54	2.04	2.15
18.5	13,019	4,466	19.0	235	643	20.24	1.74	1.81
19.5	8,554	3,544	20.0	177	408	20.95	1.45	1.50
20.5	5,010	2,534	21.0	121	231	21.68	1.18	1.21
21.5	2,476	1,552	22.0	71	110	22.41	0.91	0.93
22.5	925	785	23.0	34	40	23.15	0.65	0.65
23.5	139	139	24.0	6	6	24.00	0.50	0.50
TOTAL		100,000						

* F(AGE A) = SUM OF COL E AGE A TO END
\# I = 0.5 + ((SUM OF COL B FROM AGE A+1 THROUGH END)/(COL B AT AGE A))

Arizona
Docket No. T-1051B-99-105
WDA 21-001S1

INTERVENOR: Arizona Corporation Commission Staff (Dunkel)

REQUEST NO: 001S1

Please provide each of the following on an intrastate basis (not FCC) for each depreciable account:

A. Separately for December 31, 1998 and December 31, 1999, for each depreciable account please provide the complete generations arrangements on an intrastate basis not FCC basis. In addition to the paper copy, please also provide this requested information in electronic format on an IBM compatible 3.5" disk or an Iomega 100 MB Zip Disk.

B. For each depreciable account please provide the depreciation reserve balance as of December 31, 1998 and separately December 31, 1999.

C. For each depreciable account please provide the total retirements separately for 1998 and 1999.
Please provide each of the following on an intrastate basis (not FCC) for each depreciable account:

D. For each depreciable account please provide the retirements by vintage separately for 1998 and 1999. In addition to the paper copy, please also provide this requested information in electronic format on an IBM compatible 3.5" disk or an Iomega 100 MB Zip Disk.

E. For each depreciable account please provide the total additions separately for 1998 and 1999.

F. For each depreciable account please provide the plant in service as of December 31, 1998 and separately December 31, 1999.

RESPONSE:

A. On January 6, 2000 and April 25, 2000, the Commission decided upon depreciation parameters and lives to be used in Docket No. T-1051B-99-105. WDA 21-1, Part A requests generation arrangements which require completely new depreciation studies and are no longer relevant for this rate case. Therefore, generation arrangements have not been provided.

B. Please see Attachment D.

C. Please see Attachments A and B for the December 1998 and 1999 versions,

respectively, of the JR 2A report. The "Plant Retired" column displays the requested information. Totals only are reported, this information is not available on an intrastate basis.

D. Please see Confidential Attachment C for the 1998 and 1999 retirements by vintage.

E. Please see Attachments A and B for the December 1998 and 1999 versions, respectively, of the JR 2A report. The "Plant Added" column displays the requested information.

F. Please see Attachments A and B for the December 1998 and 1999 versions, respectively, of the JR 2A report. The "Total at End of Period" column displays the requested information.

Confidential Attachment C is being provided pursuant to the terms of the Proctective Agreement.

Bill Muir
Technical Accountant
1600 17th Street, Rm. 3008
Seattle WA

Kathleen Tuttle
Manager - Capital Recovery
1314 DOTM
Omaha, NE

<u>Supplemental Response 07/10/00</u>
Attachments A-1 and A-2 contain the requested generation arrangement data for 1998 and 1999, respectively. Attachment B contains the generation arrangement data for both years in FCC electronic format.

Jim Jones
Manager - Capital Recovery
1801 California Street
Denver, CO 80202

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2421 AERIAL CABLE MET
CATEGORY: 2421 AERIAL CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*1999	0.5	7,438,539	0.9881	0.49	7.05	7.55	984,781	6,946,149
*1998	1.5	8,640,054	0.9944	1.49	7.52	9.02	958,330	7,202,558
*1997	2.5	9,892,832	0.9929	2.49	7.50	10.00	989,161	7,419,930
*1996	3.5	10,995,199	0.9931	3.49	7.30	10.80	1,018,146	7,431,689
*1995	4.5	8,596,955	0.9888	4.47	6.99	11.49	747,980	5,231,043
*1994	5.5	6,558,420	0.9793	5.44	6.63	12.13	540,859	3,583,696
*1993	6.5	6,477,742	0.9702	6.44	6.22	12.72	509,103	3,168,573
*1992	7.5	6,373,845	0.9796	7.42	5.81	13.31	479,041	2,781,037
*1991	8.5	7,232,374	0.9733	8.36	5.38	13.88	520,970	2,804,130
*1990	9.5	7,669,578	0.9656	9.32	4.96	14.46	530,293	2,631,794
*1989	10.5	6,854,258	0.9452	10.24	4.55	15.05	455,378	2,072,791
*1988	11.5	7,308,853	0.9381	11.16	4.15	15.65	466,965	1,938,759
*1987	12.5	6,286,802	0.9051	11.96	3.76	16.26	386,527	1,455,211
*1986	13.5	5,016,687	0.8950	12.66	3.39	16.89	296,992	1,007,297
*1985	14.5	4,831,397	0.8377	13.06	3.03	17.53	275,567	835,669
*1984	15.5	4,274,768	0.8509	14.10	2.69	18.19	235,039	631,667
*1983	16.5	3,808,911	0.8125	14.63	2.36	18.86	201,995	475,992
*1982	17.5	5,239,628	0.8413	15.80	2.04	19.54	268,157	546,879
1981	18.5	1,850,493	0.8316	17.14	1.81	18.64	99,258	180,027
1980	19.5	1,786,019	0.7262	16.46	1.50	17.55	101,756	152,592
1979	20.5	1,521,517	0.7089	17.56	1.21	18.42	82,609	99,680
1978	21.5	1,339,964	0.6622	17.78	0.93	18.40	72,840	67,712
1977	22.5	1,372,889	0.6640	19.16	0.65	19.59	70,091	45,609
1976	23.5	975,646	0.6792	20.55	0.50	20.89	46,710	23,355
1975	24.5	996,266	0.6405	20.47	0.50	20.79	47,914	23,957
1974	25.5	1,449,535	0.6189	20.95	0.50	21.26	68,191	34,096
1973	26.5	1,518,428	0.5911	21.26	0.50	21.55	70,454	35,227
1972	27.5	1,563,656	0.5848	21.43	0.50	21.72	71,995	35,997
1971	28.5	1,270,818	0.5584	22.34	0.50	22.62	56,191	28,096
1970	29.5	1,988,092	0.5960	23.94	0.50	24.24	82,028	41,014
1969	30.5	1,565,655	0.6097	24.86	0.50	25.16	62,218	31,109
1968	31.5	1,178,373	0.4908	23.87	0.50	24.12	48,859	24,430
1967	32.5	1,163,772	0.4658	24.39	0.50	24.62	47,268	23,634
1966	33.5	1,238,887	0.4936	25.49	0.50	25.74	48,128	24,064
1965	34.5	1,391,124	0.4823	26.44	0.50	26.68	52,137	26,069
1964	35.5	1,473,513	0.4458	25.59	0.50	25.81	57,091	28,546
1963	36.5	1,773,157	0.5027	27.64	0.50	27.89	63,581	31,790
1962	37.5	1,587,969	0.4642	27.87	0.50	28.11	56,499	28,249
1961	38.5	1,486,124	0.4513	28.10	0.50	28.32	52,472	26,236
1960	39.5	3,163,262	0.4636	29.96	0.50	30.19	104,778	52,389
1959	40.5	1,782,112	0.3712	28.02	0.50	28.21	63,177	31,588
1958	41.5	1,151,086	0.2871	27.34	0.50	27.48	41,889	20,944

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2421 AERIAL CABLE MET
CATEGORY: 2421 AERIAL CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAIN ING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
1957	42.5	665,039	0.2124	26.08	0.50	26.19	25,395	12,697
1956	43.5	512,245	0.1728	24.62	0.50	24.70	20,736	10,368
1955	44.5	642,523	0.1750	25.44	0.50	25.52	25,173	12,587
1954	45.5	542,122	0.1342	24.39	0.50	24.45	22,169	11,084
1953	46.5	330,081	0.0875	21.04	0.50	21.09	15,654	7,827
1952	47.5	180,205	0.0528	17.52	0.50	17.54	10,272	5,136
1951	48.5	94,915	0.0711	20.51	0.50	20.54	4,620	2,310
1950	49.5	59,299	0.0558	18.68	0.50	18.71	3,169	1,585
1949	50.5	46,079	0.0429	21.40	0.50	21.43	2,151	1,075
1948	51.5	22,216	0.0223	15.76	0.50	15.77	1,409	704
1947	52.5	8,726	0.0132	19.66	0.50	19.66	444	222
1946	53.5	7,333	0.0172	19.63	0.50	19.64	373	187
1945	54.5	568	0.0149	20.92	0.50	20.92	27	14
1944	55.5	1,858	0.0462	17.20	0.50	17.23	108	54
1943	56.5	1,922	0.0105	15.26	0.50	15.26	126	63
1942	57.5	16,376	0.0187	21.68	0.50	21.69	755	377
1941	58.5	16,748	0.0291	24.90	0.50	24.92	672	336
1940	59.5	7,412	0.0209	23.49	0.50	23.50	315	158
1939	60.5	6,897	0.0366	24.35	0.50	24.36	283	142
1938	61.5	3,470	0.0096	26.37	0.50	26.37	132	66
1937	62.5	2,605	0.0010	24.08	0.50	24.08	108	54
1936	63.5	4,983	0.0511	27.23	0.50	27.26	183	91
1935	64.5	5,522	0.0390	23.58	0.50	23.60	234	117
1934	65.5	2,069	0.0500	24.66	0.50	24.69	84	42
1933	66.5	1,575	0.0011	23.86	0.50	23.86	66	33
1932	67.5	1,180	0.0108	30.00	0.50	30.01	39	20
1931	68.5	1,707	0.0119	27.80	0.50	27.80	61	31
1930	69.5	2,582	0.0054	24.73	0.50	24.73	104	52
1929	70.5	14,345	0.0221	27.32	0.50	27.33	525	262
1928	71.5	10,188	0.0160	28.69	0.50	28.70	355	177
1927	72.5	5,767	0.0322	34.39	0.50	34.40	168	84
1926	73.5	5,596	0.0085	24.74	0.50	24.74	226	113
1925	74.5	1,212,663	0.0085	24.75	0.50	24.76	48,981	24,490
TOTAL		164,522,015					11,618,535	59,373,833
NON-ELG V		41,025,173					1,753,251	1,208,969
ELG V		123,496,842					9,865,284	58,164,864

	ALL VINTS	NELG VINTS	ELG VINTS
AVG SERVICE LIFE:			
TOT B/TOT G	14.16031	23.39948	12.51833
AVG REMAINING LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT H/TOT G	5.11027	0.68956	5.89591

07/06/00
02:55 PM
XREF: 07
PRES: 1991,SF,02
PROP: 2000,SA,02

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2421 AERIAL CABLE MET
CATEGORY: 2421 AERIAL CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAIN ING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 378,790,281
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.43434

USING IOWA CURVE: R1.0
* ELG VINTAGES, PROJECTION LIFE 12.0
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

ARIZONA PERCENT OF WORKING COPPER CHANNELS
1990-1999

Year	Working Metallic Channels	Available Metallic Channels	% Metallic Channels Working
	A (1)	B (2)	C = A/B
1990	1,905,338	3,227,508	59.03%
1991	1,931,335	3,238,672	59.63%
1992	1,950,442	3,179,594	61.34%
1993	2,073,326	3,223,527	64.32%
1994	2,188,344	3,320,752	65.90%
1995	2,213,342	3,403,871	65.02%
1996	2,250,041	3,340,719	67.35%
1997	2,395,885	3,399,968	70.47%
1998	2,456,043	3,690,422	66.55%
1999	2,620,477	3,882,491	67.49%

Sources:
(1) ARMIS 43-07, Table 2, Row 380
(2) ARMIS 43-07, Table 2, Row 430

Arizona
Docket No. T-1051B-99-105
WDA 34-009

INTERVENOR: Arizona Corporation Commission Staff (Dunkel)

REQUEST NO: 009

Starting on page 11, line 12 of Mr. Wu's Rebuttal, referring to Mr. Dunkel's testimony, it is stated "He did not consistently use the appropriate 12/31/99 remaining lives."

A. Please list separately the name of each depreciable account in which you claim the remaining life used by Mr. Dunkel (Column G of Schedule WDA-6, page 1) was not the appropriate remaining life as of 12/31/99, using the Commission approved projection life and other Commission approved parameters.

B. For each account named in response to part A., please state what you contend the remaining life as of 12/31/99 to be.

C. For each of the remaining lives provided in response to part B., please provide the workpapers which show the calculation of that remaining life as of 12/31/99.

RESPONSE:

A. Please see Attachment A.

B. Please see Attachment A.

C. Please see Attachment B and C. Attachment B is the generation arrangement and projection life table reports that calculate remaining life. Attachment C is depreciation rate factor composite report that composites remaining life results for depreciation rate accounts with multiple study categories (2112 Motor Vehicles, 2121 Buildings, 2123.2 Company Comm Equip).

Jim Jones
Manager - Capital Recovery
1801 California St.
Denver, CO 80202

08/24/00
04:05 PM
XREF: 03
PRES: 1991,SF,02
PROP: 2000,SA,96

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2211 ANALOG SW EQUIP
CATEGORY: 2211 ANALOG SW EQUIP
TABLE 1-VG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F=D+(C*E)	G=B/F	H=E*G
1999	0.5	4,145,902	1.0000	0.50	0.99	1.49	2,777,929	2,756,937
1998	1.5	5,596,508	0.9645	1.48	0.99	2.44	2,294,322	2,276,719
1997	2.5	1,803,897	0.3799	1.87	0.99	2.25	802,776	796,521
1996	3.5	4,273,004	0.6813	3.30	0.99	3.98	1,073,426	1,064,929
1995	4.5	3,106,302	0.6363	3.91	0.99	4.54	683,486	677,989
1994	5.5	3,699,142	0.4150	4.55	0.99	4.96	746,275	740,174
1993	6.5	5,406,583	0.6705	5.62	0.99	6.29	859,720	852,575
1992	7.5	4,777,889	0.4708	6.12	0.99	6.59	725,393	719,263
1991	8.5	8,151,767	0.3835	6.77	0.99	7.15	1,140,448	1,130,645
1990	9.5	3,712,433	0.2299	6.77	0.99	6.99	530,772	526,130
1989	10.5	6,300,094	0.4017	8.24	0.99	8.64	729,115	722,624
1988	11.5	6,805,031	0.3677	8.00	0.99	8.37	813,457	806,085
1987	12.5	4,948,775	0.2490	9.16	0.99	9.41	525,962	521,107
1986	13.5	7,140,581	0.3135	10.15	0.99	10.46	682,424	676,006
1985	14.5	4,553,326	0.2525	9.73	0.99	9.98	456,084	451,713
1984	15.5	11,215,307	0.4750	11.53	0.99	12.00	934,741	925,607
1983	16.5	7,686,580	0.4115	13.06	0.99	13.47	570,556	564,869
1982	17.5	22,593,223	0.3607	14.56	0.99	14.92	1,514,491	1,499,089
1981	18.5	5,899,834	0.1270	13.62	0.99	13.74	429,367	424,910
1980	19.5	6,316,234	0.3013	14.63	0.99	14.93	423,124	418,639
1979	20.5	1,871,890	0.0731	13.28	0.99	13.36	140,159	138,641
1978	21.5	610,818	0.0437	14.69	0.99	14.74	41,449	40,990
1977	22.5	104,583	0.0100	15.31	0.99	15.32	6,825	6,748
1976	23.5	177,638	0.0239	14.41	0.99	14.44	12,306	12,164
1975	24.5	1,926,418	0.2065	15.82	0.99	16.02	120,214	118,789
1974	25.5	121,219	0.0255	14.91	0.99	14.94	8,116	8,018
1973	26.5	2,943,958	0.1986	17.23	0.99	17.42	168,987	166,883
1972	27.5	1,720,491	0.2697	19.51	0.99	19.78	86,999	85,888
1971	28.5	947,818	0.1349	16.81	0.99	16.94	55,948	55,215
1970	29.5	181	0.1240	16.78	0.99	16.91	11	11
1969	30.5	1,350	0.1132	16.76	0.99	16.87	80	79
1968	31.5	616	0.0212	16.30	0.99	16.32	38	37
1967	32.5	0	0.0000	0.00				
1966	33.5	415	0.0044	15.51	0.98	15.51	27	26
1965	34.5	668	0.0071	22.21	0.98	22.21	30	30
1964	35.5	362	0.1518	25.77	0.98	25.92	14	14
1963	36.5	0	0.0000	0.00				
1962	37.5	4,830	0.0030	21.96	0.98	21.96	220	216
1961	38.5	0	0.0000	0.00				
1960	39.5	0	0.0000	0.00				
1959	40.5	2,486	0.0186	21.40	0.98	21.42	116	114
1958	41.5	0	0.0000	0.00				
1957	42.5	0	0.0000	0.00				

08/24/00
04:05 PM
XREF: 03
PRES: 1991,SF,02
PROP: 2000,SA,96

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2211 ANALOG SW EQUIP
CATEGORY: 2211 ANALOG SW EQUIP
TABLE 1-VG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2000% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAIN ING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F=D+(C*E)	G=B/F	H=E*G
1956	43.5	0	0.0000	0.00				
1955	44.5	30,903	0.0556	35.56	0.98	35.62	868	848
TOTAL		138,599,059					19,356,273	19,187,239

AVG SERVICE LIFE: ALL VINTS
TOT B/TOT G 7.16042
AVG REMAINING LIFE: ALL VINTS
TOT H/TOT G 0.99127
COMPUTED GROSS ADDS-ALL VINTS: AVG PROPORTION SURVIVING:
SUM OF (B/C) 459,906,144 B/ SUM OF (B/C) 0.30136

INTERIM RETIREMENT RATE: 1.5
++ FROM INTERIM CURVE, TABLE 2-VG, AYFR 2000.5 % ACTUAL

08/24/00
04:05 PM
XREF: 03
PRES: 1991,SF,02
PROP: 2000,SA,96

COMPANY: U S WEST
STATE: ARIZONA
ACCOUNT: 2211 ANALOG SW EQUIP
CATEGORY: 2211 ANALOG SW EQUIP
TABLE 2-VG

PROJECTION LIFE TABLE
DEVELOPMENT OF VINTAGE GROUP REMAINING LIFE BY AGE

INTERIM LIFE TABLE PARAMETERS

AVG YEAR OF FINAL RETIREMENT (AYFR) 2000.5
UPDATE EXPERIENCE YEAR 2000

INTERIM RETIREMENT RATE: 1.5

AGE YEARS	PROPORTION SURVIVING	REMAINING LIFE OF SURVIVORS	AGE YEARS	PROPORTION SURVIVING	REMAINING LIFE OF SURVIVORS
A	B	C*	A	B	C*
0.5	0.99250	0.99	33.5	0.49750	0.98
1.5	0.97750	0.99	34.5	0.48250	0.98
2.5	0.96250	0.99	35.5	0.46750	0.98
3.5	0.94750	0.99	36.5	0.45250	0.98
4.5	0.93250	0.99	37.5	0.43750	0.98
5.5	0.91750	0.99	38.5	0.42250	0.98
6.5	0.90250	0.99	39.5	0.40750	0.98
7.5	0.88750	0.99	40.5	0.39250	0.98
8.5	0.87250	0.99	41.5	0.37750	0.98
9.5	0.85750	0.99	42.5	0.36250	0.98
10.5	0.84250	0.99	43.5	0.34750	0.98
11.5	0.82750	0.99	44.5	0.33250	0.98
12.5	0.81250	0.99	45.5	0.00000	0.50
13.5	0.79750	0.99	46.5	0.00000	0.50
14.5	0.78250	0.99	47.5	0.00000	0.50
15.5	0.76750	0.99	48.5	0.00000	0.50
16.5	0.75250	0.99	49.5	0.00000	0.50
17.5	0.73750	0.99	50.5	0.00000	0.50
18.5	0.72250	0.99	51.5	0.00000	0.50
19.5	0.70750	0.99	52.5	0.00000	0.50
20.5	0.69250	0.99	53.5	0.00000	0.50
21.5	0.67750	0.99	54.5	0.00000	0.50
22.5	0.66250	0.99	55.5	0.00000	0.50
23.5	0.64750	0.99	56.5	0.00000	0.50
24.5	0.63250	0.99	57.5	0.00000	0.50
25.5	0.61750	0.99	58.5	0.00000	0.50
26.5	0.60250	0.99	59.5	0.00000	0.50
27.5	0.58750	0.99	60.5	0.00000	0.50
28.5	0.57250	0.99	61.5	0.00000	0.50
29.5	0.55750	0.99	62.5	0.00000	0.50
30.5	0.54250	0.99	63.5	0.00000	0.50
31.5	0.52750	0.99	64.5	0.00000	0.50
32.5	0.51250	0.99	65.5	0.00000	0.50

* C = 0.5 + ((SUM OF COL B FROM AGE A+1 THROUGH AGE A+W)/(COL B AT AGE A))
WHERE W = AYFR-UPDATE EXPERIENCE YEAR= 2000.5-2000= 0.5

CHANGE IN ANNUAL INTRASTATE DEPRECIATION ACCRUALS RESULTING FROM CHANGES IN DEPRECIATION RATES ACC ORDERED PROJECTION LIVES AND NET SALVAGE APPLIED TO TEST YEAR INVESTMENT AND RESERVES ($000)

			PREVIOUS DEPRECIATION RATES					DEPRECIATION RATES USING ACC ORDERED PROJECTION LIVES, CURVES, AND NET SALVAGE APPLIED TO TEST YEAR INVESTMENTS AND RESERVES							
Account #	Class or Subclass of Plant	Intrastate Investment 12/31/1999 A (1)	Remaining Life Years B (2)	Reserve % C (2)	Future Net Salvage % D (2)	Previous Depreciation Rate E = (1 - C - D) / B	Rate Amount F = A x E	Remaining Life Years 12/31/1999 Using ACC Ordered Proj. Lives G (4)	Reserve % I (5)	Future Net Salvage % J (3)	Depreciation Rate K = (1- I - J) / G	Rate Amount L = A x K	Amortization Amount M (6)	Total Depreciation and Amortization N = L + M	Change in Depreciation and Amortization Accrual O = N - F
2112	MOTOR VEHICLES	$47,502	3.9	41.0%	18.0%	10.5%	$4,988	3.9	73.5%	16.0%	2.7%	$1,283		$1,283	($3,705)
2114	SPEC PURPOSE VEHICLES	$18	8.4	24.0%	23.0%	5.9%	$1	7.3	2.5%	0.0%	13.4%	$2		$2	$1
2115	GARAGE WORK EQUIP	$961	9.0	16.9%	23.0%	6.7%	$64	9.7	-71.1%	-4.0%	18.1%	$174		$174	$110
2116	OTHER WORK EQUIP	$15,891	8.4	27.7%	23.0%	5.9%	$938	5.7	14.3%	7.0%	13.8%	$2,193		$2,193	$1,255
2121	BUILDINGS	$115,383	28.0	15.4%	-10.0%	3.4%	$3,923	25.0	34.3%	-6.0%	2.9%	$3,346		$3,346	($577)
2122	FURNITURE	$1,208	10.1	20.4%	3.0%	7.6%	$92	4.8	-1.7%	0.0%	21.2%	$256		$256	$164
2123.1	OFFICE EQUIP	$3,883	7.1	28.8%	5.0%	9.3%	$361	3.0	42.5%	0.0%	19.2%	$746		$746	$384
2123.2	COMPANY COMM EQUIP	$1,040	3.3	62.1%	1.0%	11.2%	$116	3.9	153.3%	0.0%	0.0%	$0		$0	($116)
2124	GEN PURPOSE COMPUTER	$79,409	3.0	42.9%	5.0%	17.4%	$13,817	2.1	85.5%	5.0%	4.5%	$3,573		$3,573	($10,244)
2211	ANALOG SW EQUIP	$110,824	8.4	34.7%	2.0%	7.5%	$8,312				N/A		$18,000	$18,000	$9,688
2212	DIGITAL SW EQUIP	$655,053	10.4	16.3%	3.0%	7.8%	$51,094	5.1	42.5%	3.0%	10.7%	$70,091		$70,091	$18,997
2220	OPERATOR SYSTEMS	$6,498	1.4	4.1%	3.0%	66.4%	$4,315	5.2	64.4%	-3.0%	7.4%	$481		$481	($3,834)
2231	RADIO SYSTEMS	$23,571	8.1	34.5%	-8.0%	9.1%	$2,145	5.9	82.5%	-2.0%	3.3%	$778		$778	($1,367)
2232	CIRCUIT DDS	$5,667	4.0	50.5%	-4.0%	13.4%	$759	3.8	106.0%	3.0%	0.0%	$0		$0	($759)
2232	CIRCUIT DIGITAL	$752,751	7.9	27.8%	3.0%	8.8%	$66,242	5.1	52.6%	2.0%	8.9%	$66,995		$66,995	$753
2232	CIRCUIT ANALOG	$32,631	5.0	39.1%	3.0%	11.6%	$3,785	3.1	95.3%	0.0%	1.5%	$489		$489	($3,296)
2362	OTHER TERM EQUIP	$40,092	4.7	45.9%	3.0%	10.9%	$4,370	6.3	53.1%	2.0%	7.1%	$2,847		$2,847	($1,523)
2351	PUB TEL TERM EQUIP	$17,969	2.7	94.6%	1.0%	1.6%	$288	3.5	0.0%	30.0%	N/A	$0		$0	($288)
2411	POLE LINES	$34,403	15.6	55.9%	-49.0%	6.0%	$2,064	25.0	79.1%	-138.0%	6.4%	$2,202		$2,202	$138
2421	AERIAL CABLE MET	$121,417	9.3	27.3%	-23.0%	10.3%	$12,506	5.1	78.2%	-27.0%	9.6%	$11,656		$11,656	($850)
2421	AERIAL CABLE NON MET	$4,563	15.5	4.0%	-27.0%	7.9%	$360	10.6	28.6%	-27.0%	9.3%	$424		$424	$64
2422	UNGRD CABLE MET	$257,054	13.8	24.9%	-9.0%	6.1%	$15,680	5.6	62.5%	-6.0%	7.8%	$20,050		$20,050	$4,370
2422	UNGRD CABLE NON MET	$64,194	18.7	7.8%	-21.0%	6.1%	$3,916	6.0	38.6%	-6.0%	11.2%	$7,190		$7,190	$3,274
2423	BURIED CABLE MET	$927,241	14.8	25.7%	-2.0%	5.2%	$48,217	5.6	44.7%	-7.0%	11.1%	$102,924		$102,924	$54,707
2423	BURIED CABLE NON MET	$12,727	20.0	10.0%	-9.0%	5.0%	$636	10.2	38.2%	-7.0%	6.7%	$853		$853	$216
2424	SUB CABLE MET	$2	22.0	-80.9%	0.0%	8.2%	$0	0.5	4.0%	0.0%	192.0%	$4		$4	$4
2424	SUB CABLE NON MET	$0	13.9	36.8%	0.0%	14.0%	$0	20.0	0.0%	0.0%	5.0%	$0		$0	$0
2426	INTRA BLDG CABLE MET	$30,275	14.1	53.1%	-12.0%	4.2%	$1,272	7.7	75.7%	0.0%	3.2%	$969		$969	($303)
2426	INTRA BLDG CABLE NON MET	$429	12.5	-14.0%	-33.0%	11.8%	$51	6.2	41.2%	0.0%	9.5%	$41		$41	($10)
2431	AERIAL WIRE	$6,494	12.0	12.2%	-32.0%	10.0%	$649	5.6	32.6%	-30.0%	17.4%	$1,130		$1,130	$481
2441	CONDUIT SYSTEMS	$225,140	47.0	16.2%	-11.0%	2.0%	$4,503	41.0	24.3%	-20.0%	2.3%	$5,178		$5,178	$675
	TOTAL	$3,594,290					$255,464					$305,873	$18,000	$323,873	$68,409
	COMPOSITES						7.1%					8.5%		9.0%	

Footnotes:

(1) Wu Direct Testimony Exhibit KDW-2.
(2) Wu Direct Testimony Exhibit KDW-1, page 1.
(3) ACC Ordered Net Salvage, as shown on Wu Direct testimony Exhibit KDW-1, page 1.
(4) USWC's Response to Data Request WDA 21-1S1, Attachment A-2.
(5) Wu Rebuttal Exhibit KDW-2.
(6) See Mr. Dunkel's Surrebuttal Testimony for discussion of Staff's proposed amortization for account 2211 - Analog Switching Equipment.

THIS SCHEDULE CONTAINS INFORMATION DESIGNATED AS PROPRIETARY OR CONFIDENTIAL BY QWEST AND HAS BEEN EXCLUDED FROM THIS REDACTED TESTIMONY

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Panel discussion on the nature of the relationship between telecommunications and state economic development. The Council of State Governments' Eastern Regional Conference. Manchester, New Hampshire. July 31, 1990.

With John Haring. "The Demand for Information Services and the Case for Regulatory Reform in Telecommunications." Presented to the Bellcore/Bell Canada Industry Forum. Hilton Head, South Carolina. April 1990.

With Jeffrey H. Rohlfs. "Will Price Caps Correct Major Economic Flaws in the Current Regulatory Process?." Presented at the 20th Annual Williamsburg Conference. Williamsburg, Virginia. December 5-7, 1988.

"Exercise of Congressional Influence Vis-à-vis the FCC and Judge Greene: Some Changing Relationships." Presented at the Northern Telecom Law Department Seminar. Pebble Beach, California. May 13-15, 1988.

With Jeffrey H. Rohlfs and Susan W. Leisner. "The Negative Effects of Tax Reform on the Telephone Industry: Making Up the $15 Billion Difference." Presented at the 15th Annual Telecommunications Policy Research Conference. Airlie, Virginia. September 27-30, 1987.

"Mass Media and the First Amendment: Separate but Unequal." Presented to the Association for Education in Journalism and Mass Communication 1984 Convention. Gainesville, Florida. August 1984.

Remarks prepared for the CBA Legislative Workshop. 1984.

Remarks prepared for the National Commission on Free and Responsible Media. Washington, D.C. February 28, 1984.

"Local Distribution in the New Telecommunications Era: Nature and Extent of Regulation." Presented to the Workshop on Local Access: Strategies for Public Policy. Ad Hoc Committee on Access. Chase Park Plaza Hotel. St. Louis, Missouri. September 14-17, 1982.

"Cable and Enhanced Services: Legal and Regulatory Barriers." Presented to EASCON '81. Washington, D.C. November 18, 1981.

"From the Crystal Ball to the Real World." Presented to the 1981 Convention of the Associated Press Managing Editors. Toronto, Ontario, Canada. October 20, 1981.

"A New Federalism: Federal/State Regulation in the Competitive Era." Presented to the Seventh Annual Rate Symposium of the Institute for the Study of Regulation. Kansas City, Missouri. February 9, 1981.

Remarks prepared for the Technical Committee on Media of the White House Conference on Aging. New York. January 14, 1981.

STRATEGIC POLICY RESEARCH

EXHIBIT S-12 admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF U S WEST COMMUNICATIONS, INC., A COLORADO CORPORATION, FOR A HEARING TO DETERMINE THE EARNINGS OF THE COMPANY, THE FAIR VALUE OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN	)	DOCKET NO. T-1051B-99-105

TESTIMONY OF HARRY M. SHOOSHAN III STRATEGIC POLICY RESEARCH, INC.

August 9, 2000

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DIRECT TESTIMONY OF
HARRY M. SHOOSHAN III

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Attachment 1: Proposed Basket Structure

Attachment 2: Vitae of Harry M. Shooshan III

DIRECT TESTIMONY OF HARRY M. SHOOSHAN III

1. INTRODUCTION

Q. WHAT IS YOUR NAME AND OCCUPATION?

A. My name is Harry M. Shooshan III. I am a principal in, and co-founder of, Strategic Policy Research, Inc. ("SPR"), an economics and public policy consulting firm located at 7979 Old Georgetown Road, Suite 700, Bethesda, Maryland.

Q. WILL YOU BRIEFLY DESCRIBE YOUR RELEVANT BACKGROUND AND EXPERIENCE?

A. Prior to founding SPR, I worked for eleven years on Capitol Hill and, for six years, was Chief Counsel and Staff Director of the Communications Subcommittee in the U.S. House of Representatives. I had responsibility for developing policy options for the Subcommittee, assisting in the drafting of legislation and coordinating the Subcommittee's oversight of the Federal Communications Commission ("FCC"). I was especially active in early efforts to rewrite the Communications Act of 1934. From 1976 to 1991, I was an adjunct professor at Georgetown University Law Center. I taught courses in communications law and regulation. These courses examined the role of administrative agencies in interpreting their statutory mandates, including their exercise of discretion in rule-makings and other proceedings. In my twenty years as a consultant, I have advised a wide range of clients in the private sector as well as several regulatory bodies in the United States and around the world. I have published numerous works on a variety of topics including alternative regulation, rate rebalancing, universal service, and asymmetric regulation. For nearly a decade, I have served as an advisor to the Iowa Utilities Board on a variety of

telecommunications matters, including the evaluation of incentive regulation plans and the implementation of the federal Telecommunications Act of 1996 ("the 1996 Act"). In addition, I have testified before numerous public utility commissions on issues relating to competition, customer perspectives on telecommunications markets, price caps and other forms of incentive regulation. My complete curriculum vitae is attached as Attachment 2 to this testimony.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. SPR was hired by the Arizona Corporation Commission (the "Commission") to work with the staff to develop an alternative regulation plan for U S WEST Communications, Inc. ("U S WEST"). We worked with the staff and its other consultants to develop the plan that I am presenting in this testimony. This alternative regulation plan can be considered by the Commission if it decides to reject the approach taken by U S WEST.

2. EVALUATION OF U S WEST'S COMPETITIVE ZONE PROPOSAL AND AN ALTERNATIVE PROPOSAL

Q. PLEASE DESCRIBE U S WEST'S PLAN, AS YOU UNDERSTAND IT.

A. U S WEST's plan seeks competitive classification for its various services based on "zones" that relate to exchanges or wire centers. Once U S WEST has demonstrated that a service is competitive in a particular zone, that service would be subject to the competitive service pricing rules of the Commission (ACCR 14-2-1109, 14-2-1110). However, U S WEST would remain under traditional rate-of-return ("ROR") regulation for both competitive and non-competitive services.

Q. WILL YOU PLEASE BRIEFLY DESCRIBE THE ALTERNATIVE REGULATION PLAN YOU ARE RECOMMENDING?

A. Yes. The plan I recommend, in essence, moves away from traditional ROR regulation towards price regulation and, ultimately, to reliance on competitive

markets to determine prices and service offerings. It is structured to be forward-looking and to provide U S WEST with important incentives to increase its investments in Arizona and to improve its service quality both now and in the future. The plan also protects consumers who will continue to rely on the basic services provided by U S WEST during the transition to fully competitive markets mandated by federal law. The plan establishes three categories or "baskets" of services, each with its own price controls. The term of the plan is five years, which, in my opinion, is long enough for the new incentives to have an impact, but short enough to enable the Commission to review the company's performance under the plan to ascertain that it is actually providing the expected benefits to consumers.

Q. CAN YOU EXPLAIN HOW YOUR PLAN DIFFERS FROM THE FILING MADE BY U S WEST?

A. Yes. Contrary to the plan I propose, U S WEST has filed a plan that is consistent with traditional regulation in Arizona. It retains rate-base ROR regulation, but seeks expanded pricing flexibility of its services where the company faces competition. After updating the test year in its direct case to reflect a January 1999 to December 1999 test year, U S WEST proposes that the Commission grant rate increases totalling $88 million for its basic services and seeks only minor reductions in the access charges paid by long-distance providers.[1]

Q. IN YOUR OPINION, WHAT ARE THE MOST PROBLEMATIC ASPECTS OF THE APPROACH TAKEN BY U S WEST AND HOW WOULD YOUR PROPOSAL ALLEVIATE THEM?

A. In general, I see three problems with the U S WEST filing. First, I am concerned that U S WEST's approach leaves most of the risk associated with increasing

[1] Supplemental testimony of David L. Teitzel (May 19, 2000) at 51-52. In its original filing, U S WEST sought a $70.9 million rate increase. *See also* Wayne Alcott Direct Testimony at 14.

competition on basic ratepayers. For example, U S WEST is asking the Commission to grant it pricing flexibility, including for basic services, where it faces competition but would not assign any costs directly to competitive services. As a result, if U S WEST suffers competitive losses, as I expect it will, it can come back to the Commission to ask that basic service rates be increased in areas where there is little or no competition. Similarly, U S WEST may have the incentive and opportunity to cross-subsidize lower rates in competitive services and/or areas with higher basic rates in non-competitive services and/or areas. Finally, extending pricing flexibility on a service-by-service, exchange-by-exchange basis, while retaining elements of ROR, can be confusing to consumers and needlessly complex for the Commission to oversee and administer, especially as competition intensifies. More specifically, I am concerned that U S WEST wants the Commission to approve significant increases in basic service rates while proposing only minor reductions in its intrastate access charges. While I believe that rates should be rebalanced, I am concerned about the approach taken by U S WEST and believe that an alternative approach should be considered.

Q. IN SUPPLEMENTAL TESTIMONY, U S WEST RECOMMENDS THAT "FINISHED WHOLESALE SERVICES" SUCH AS SWITCHED ACCESS, PRIVATE LINE AND PUBLIC PAYPHONE ACCESS LINES BE CLASSIFIED AS COMPETITIVE IN THIS PROCEEDING.[2] HOW WOULD THE PLAN YOU ARE PROPOSING TREAT SUCH SERVICES?

A. As I describe in greater detail subsequently in this testimony, I recommend placing all existing "wholesale services," initially in a separate basket subject to its own price cap. Services could then be moved out of that basket upon a showing that they are competitively supplied.

[2] Supplemental Testimony of Scott A. McIntyre (May 19, 2000) at i - ii.

3. PRICE REGULATION: EXPERIENCE IN OTHER JURISDICTIONS

Q. YOU HAVE CHARACTERIZED YOUR PROPOSAL AS "PRICE REGULATION." HAVE PLANS SIMILAR TO YOURS BEEN ADOPTED IN OTHER JURISDICTIONS? IF SO, WILL YOU IDENTIFY THEM?

A. Price regulation was first implemented in the United Kingdom ("U.K.") by the telecommunications regulator, the Office of Telecommunications ("Oftel"), and applied to British Telecom. At the time, it was privatised. Oftel rejected ROR regulation as an option. I should note that SPR consulted for Oftel for almost ten years and, thus my colleagues and I are familiar with the experience in the U.K. We have also worked for regulators in countries such as Mexico, Peru and Panama that have also adopted price regulation at the time of privatization. In Jamaica, where we assisted the regulator in obtaining a more advantageous concession contract with the privatized incumbent, the regulator implemented a price regulation plan as part of the new concession contract. Other countries have also followed the British lead. For example, in Denmark, France, Greece, Ireland, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and Turkey, the regulator utilizes some form of price cap to regulate prices of the incumbent.[3]

Domestically, the FCC introduced price regulation in 1991. AT&T was regulated under price caps from 1991 until its reclassification as a nondominant carrier in 1995.[4] The FCC also extended price regulation to large incumbent local exchange carriers ("ILECs") in 1991. As many as 36 states regulate the largest ILECs (*i.e.*, the Regional Bell Companies, GTE and Sprint) under some form of price regulation.

[3] OECD, *Communications Outlook 1999* (1999) at 166-167.

[4] FCC, In the Matter of AT&T Corp. to Be Reclassified as a Non-Dominant Carrier, FCC 95-427 *Order* (adopted October 12, 1995; released October 23, 1995).

These states include: Alabama, Delaware, Florida, Georgia, Illinois, Louisiana, Maryland, Massachusetts, New York, North Carolina, South Carolina, Oklahoma, Texas, Virginia and West Virginia. Among U S WEST states, North Dakota, South Dakota, Iowa and Wyoming regulate U S WEST under a price-cap plan. Colorado has been in the process of determining an alternative regulation plan.

Often, price-cap plans include a variety of features. For example, some states such as Illinois, Wisconsin, New York and Pennsylvania, have included service quality components in their price-cap plans. States such as Texas, Florida and Pennsylvania, employ a more flexible price cap for non-basic services and a more stringent price cap on basic telecommunications services.

4. ADVANTAGES OF PRICE REGULATION

Q. IN YOUR OPINION, WHAT ARE THE ADVANTAGES OF PRICE REGULATION OVER TRADITIONAL ROR REGULATION?

A. The advantages of price regulation over ROR regulation are well-documented. In the first place, under ROR, regulators must rely on the accuracy and completeness of cost data provided by the regulated company. Time-consuming disputes arise, inevitably leading to arbitrary decisions about which costs are justified and which are not, as well as about how costs should be assigned among various services. Economists have often pointed to this disparity in information between the regulator and the regulated company in their criticisms of ROR regulation.[5] The adoption of price regulation, which does not rely on company-specific cost data, reduces such controversies.

[5] Alfred Kahn, "Deregulation: Looking Backward and Looking Forward," *Yale Journal on Regulation* (Vol. 7, No. 2, Summer 1990) at 340-341; and Paul L. Joskow and Richard Schmalensee, "Incentive Regulation for Electric Utilities, *Yale Journal on Regulation* (Vol. 4, No. 1, Fall 1986) at 12-13.

The problems of ROR regulation are exacerbated when the regulated firm offers a variety of services and when some of the markets (geographic or product) in which the regulated company operates are competitive. Cross-subsidy incentives arise that are extremely difficult to detect and prevent in such instances.[6]

Finally, it is generally agreed that agencies can reduce administrative costs by adopting price regulation, thereby freeing up resources to monitor issues such as service quality and competition.

Price regulation is specifically aimed at providing limits on incumbents' prices, particularly of basic services, while providing incentives for increased productivity of the regulated firm. Price regulation directly protects consumers and provides the incumbent with a greater flexibility to respond to competitors. The limits set by the price cap provide safeguards against anticompetitive pricing, preventing subsidies from non-competitive to competitive services and, thereby reducing the risk of predatory pricing. Both consumers and competitors benefit from this constraint. Under price regulation, more of the risk of investment is borne by the regulated firm (and its shareholders) rather than by customers. For example, when the price-regulated firm undertakes the risk of a new investment, it operates on the same basis as its unregulated competitors. Consumers of basic service will not pick up the tab if the venture fails.

Finally, through an appropriate price-cap mechanism, the firm is able to rebalance rates to produce more efficient prices that will, in turn, encourage efficient competition. The price-cap limits allow rate rebalancing to occur over time and avoids rate shock. I believe a price regulation plan such as I am proposing here can provide a better way to achieve the necessary rate rebalancing (by permitting

[6] Michael Einhorn, *Price Caps and Incentive Regulation in Telecommunications* (Kluwer Academic Publishers: Norwell, Massachusetts, 1991) at 8.

consumers to "self-select" rebalanced rates) than the approach taken by U S WEST (an across-the-board increase in basic rates).[7]

Q. HAVE THE BENEFITS YOU ENUMERATE BEEN REALIZED ELSEWHERE UNDER PRICE REGULATION?

A. Yes. Price regulation has been found to have a number of favorable impacts. Results from the U.K. have indicated the success of price-cap regulation from the beginning. For example, in the first four years of its price-cap plan, prices for a basket of telephone services in the U.K. rose at a rate much lower than in France, (West) Germany and Italy where the telephone companies were still government-owned monopolies.[8] More recently, Oftel found that consumers have fared even better under the current price-cap parameters than in the past. BT's introduction of discount calling plans has enabled consumers to reap benefits greater than those required by the price-cap plan.[9]

The FCC, in its first review of price-cap regulation of the ILECs, estimated that the cumulative savings derived from the price-cap plan over the period 1991-1994 exceeded $10 billion.[10] The FCC found that ILEC prices had "declined significantly" under price-cap regulation compared to the starting rates in 1991.[11] The FCC also found that during the first four years of price-cap regulation, ILECs made investments in new plant that exceeded the levels in prior years by over 4

[7] John Haring and Harry M. Shooshan III, *Cutting the Gordian Knot of Rate Rebalancing*, prepared for the 29th Annual Conference of the Institute of Public Utilities, "Reconciling Competition and Regulation," Williamsburg, Virginia (December 5, 1997).

[8] Einhorn at 4.

[9] Oftel, *Price Controls Under Review:: Future Competitiveness of UK Telecommunications Markets* (July 1999) at Chapter 2, ¶ 6.

[10] FCC, In the Matter of Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, *First Report and Order* (released April 7, 1995) at ¶ 60.

[11] *Ibid.* at ¶ 59.

percent.[12] Collectively, the ILECs filed tariffs for hundreds of new services, demonstrating that price regulation encouraged innovation and the development of new services.[13]

The fact that more and more states are adopting price regulation plans also demonstrates that its successes are now generally accepted.

Q. WHAT ARE THE PARTICULAR ADVANTAGES OF THE APPROACH YOU ARE RECOMMENDING OVER OTHER FORMS OF ALTERNATIVE REGULATION?

A. The need to move away from ROR regulation is not predicated on the presence of competition, but on the fundamental need to improve regulatory methods. The fact that markets have been opened to competition only exacerbates the problems associated with ROR regulation, as I described above. The FCC and some states first took incremental steps away from ROR to incentive regulation plans because of the shortcomings of ROR, not because of the presence of widespread competition. The states employed incentive plans that included features such as earnings sharing and specific infrastructure deployment commitments. These plans provided incentives for the regulated company to become more efficient in order to enjoy the profits that it could retain over an extended period. These plans retained earnings regulation, however.

Over time, as regulators experienced success with alternative regulation plans and as barriers to entry were removed, the trend has been to remove earnings regulation altogether. Of the 36 states that rely on price regulation, 35 states employ plans that concentrate, not on controlling the firm's earnings, but on providing a zone of reasonableness (defined by a price-cap index formula) within which services can be priced.

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[12] *Ibid.* at ¶ 63.

In my opinion, the Commission can benefit from other states' experience and should bypass incremental steps by adopting a true price regulation plan. The increasing presence of competition in varying degrees in various markets only enhances the need to move away from ROR. The plan I propose here meets that need, while providing significant consumer protections and incentives for U S WEST to increase its investment in the state.

5. COMPONENTS OF THE PRICE REGULATION PROPOSAL

Q. WOULD YOU NOW PLEASE DESCRIBE THE ESSENTIAL ELEMENTS OF YOUR PROPOSAL IN MORE DETAIL?

A. The proposal I have developed in consultation with the Staff focuses regulation on constraining prices rather than on the profits earned by U S WEST. I am proposing grouping services into three categories, or "baskets," each of which would be subject to its own overall pricing rules or "price cap."

Q. HOW ARE THE THREE "BASKETS" STRUCTURED IN YOUR PROPOSAL?

A. The basket structure I am recommending is contained in Attachment 1 to my testimony. The first basket ("Basic/Essential Retail") consists of all services that U S WEST currently offers which have not been classified as "competitive" or which are not currently afforded flexible pricing. A second basket ("Essential Wholesale") consists of all non-competitive "wholesale" services. These are the services that competitors rely upon for their offerings, and include intrastate access, unbundled network elements, local service resale and public payphone access lines. A third

[13] *Ibid.* at ¶ 58.

basket ("Competitive/Advanced") consists of any existing services that have been classified as "competitive" and also includes those services for which U S WEST has obtained flexible pricing authority. Among these services are Centrex Centron, ATM Call Relay, WATS and certain message toll services. Any new packaged or bundled retail offering would also be included in Basket Three as long as the major components of the packaged/bundled offering that are "non-competitive" are available under tariff as a separate service in either Baskets One or Two. The availability of the tariffed components provides a reasonable alternative for customers who do not want to take the new packages or bundles offered by U S WEST. New stand-alone retail services would also go into Basket Three. In addition, services (including existing packages or bundles that are not currently classified "competitive" or subject to flexible pricing) could be moved from Basket One to Basket Three (or withdrawn altogether) with the Commission's approval.

Q. HOW WOULD A SERVICE BE MOVED FROM THE "BASIC/ ESSENTIAL" BASKET TO THE "COMPETITIVE/ADVANCED" BASKET?

A. Initially, a service could be moved once it is shown to meet the requirements of A.C.C. R14-2-1108. I would emphasize, however, that since the adoption of this alternative regulation plan significantly reduces the risk to basic ratepayers of a service being "misclassified" (basic services would be in a separate basket subject to strict price limits and, therefore, would not be a source of cross-subsidy), a less rigorous test might be warranted once a price-cap plan is in place. For example, under this plan the Commission might consider a service competitive if at least one competitor exists and no longer look at "estimated market share" of the various providers.

Q. WILL YOU DESCRIBE HOW THE PRICES FOR EACH OF THE THREE BASKETS WILL BE ESTABLISHED? PLEASE START WITH BASKET ONE.

1 A. Yes. Basket One will be subject to an overall price cap and to some internal
2 constraints. I propose capping all basic services (which I define to include: Flat
3 Rate Residential and Business Services, Two-and Four-Party Service, Exchange
4 Zone Increment Charges, Low Use Option, Service Stations Service, Telephone
5 Assistance Programs, individual PBX Trunks and Features, Caller ID Block, Toll
6 Blocking, 900/976 Blocking, and Basic Listing Service) at existing prices for the
7 initial period of the plan; that is, five years. Otherwise, prices within this basket
8 could be increased or decreased as long as the weighted average price level for the
9 basket as a whole is within the overall price-cap index.

10 Q. WHAT ABOUT BASKET TWO?

11 A. Initially, Basket Two consists primarily of intrastate access and UNEs/local service
12 resale. These offerings would be governed by separate sub-constraints. I propose
13 that intrastate access prices be reduced by 20 percent per year from their initial
14 levels so that by the end of the initial five-year period they are equivalent to U S
15 WEST's interstate access charges at July 2000 levels. From that point on, I
16 recommend that intrastate access charges be adjusted to "mirror" the interstate
17 rates. Along with access, UNEs and local service resale are important inputs for
18 competitors, but are governed by the provisions of the 1996 Act and relevant FCC
19 rules. Thus, while they may be appropriately placed in Basket Two, the plan I
20 propose contemplates that prices would be established as required by federal law
21 and subject to the procedures already established by the Commission. Rates for
22 other services, such as public payphone access lines, that are identified for inclusion
23 in Basket Two, should initially be frozen at current levels subject to further review
24 by the Commission.

25 Q. AND NOW FINALLY FOR BASKET THREE?

26 A. Prices for services in Basket Three would qualify for streamlined rate treatment
27 comparable to that provided for in A.C.C. R14-2-1109 and R14-2-1110. The retail
28 services contained in this basket could be priced at any level between a maximum
29 specified in a tariff and a minimum of the total service long-run incremental cost of

the service. Price changes within this established range would be permitted at any time as long as concurrent notice is provided to the Commission.

Q. WHAT PRICE-CAP INDEX WOULD APPLY TO BASKET ONE?

A. For Basket One, the price-cap index would be established in accordance with price-cap plans generally (including the FCC's). It would be set based on inflation less an adjustment for productivity (the so-called "X-Factor"). The weighted average price level of the services within this basket must be less than or equal to the price-cap index ("PCI"). For example, if U S WEST increases the price of a service assigned to this basket and that price increase results in a weighted average price level above the PCI, then the price of other services in that basket must be reduced in order to maintain the average price level within the bounds of the index. I note here that those basic services within Basket One that are capped at their existing levels going into the plan could not be increased during the initial five-year term of the plan, but could be decreased. The measure of inflation that is used in most price-cap plans is the percent change in the gross domestic product-price index ("GDP-PI").[14]

To develop an appropriate productivity adjustment in the price-cap plan, we requested from U S WEST any productivity studies it has conducted.[15] We reviewed the productivity study that U S WEST conducted for its operations in Arizona in response to SPR 003-001. For the years 1995-1998, following its most recent rate case, we calculated an average productivity of 3.7 percent. We sought

[14] The FCC switched from using the gross national product-price index ("GNP-PI") to the GDP-PI in its review of interstate price caps when the Commerce Department ceased to provide the needed estimate of GNP-PI in 1991. Economic reasons further support the use of GDP-PI. GDP-PI reflects only domestic production of U.S. and foreign firms within the United States. *See* FCC, In the Matter of Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, *First Report and Order* (released April 7, 1995) at ¶¶ 347-351.

[15] The measure of a company's productivity is the percent change in the ratio of the firm's output over its inputs from one year to the next. Complex productivity calculations have been conducted that analyze inputs and outputs on the basis of their quantities and prices. Such complex studies are referred to as "total factor productivity" studies. Because it is difficult to compare the units of "apples and oranges" (*i.e.*, minutes of use, number of access lines, units of labor or fiber miles), productivity studies often use methods that compare annual percent changes in the ratio of total revenue (as a proxy for outputs) and total costs (as a proxy for inputs).

revised data from U S WEST to further investigate its productivity.[16] Since these data were provided too late for us to analyze fully for use in this testimony, U S WEST's own study provides the only information available about the productivity of its operations in Arizona.

We also researched the productivity adjustments of other states that employ price regulation. The productivity adjustments used by price-cap states have ranged from zero to 5 percent. The average productivity adjustment used by these states is 3.2 percent.[17] Our analysis of other states' use of productivity suggests that U S WEST's productivity estimates are reasonable. In light of our research and analysis, I recommend that the Commission adopt a productivity adjustment that is based on the 3.7 percent annual productivity that U S WEST has achieved since the last rate proceeding in Arizona. To this historical productivity, I recommend that the Commission add a Consumer Productivity Dividend ("CPD") of 0.5 percent. Regulators include the CPD based on the expectation that the carrier will achieve greater levels of productivity under price-cap regulation than under ROR in order to ensure that some of those productivity gains flow through to consumers in the form of relative price reductions. Thus, I recommend a productivity adjustment of 4.2 percent based on a combination of U S WEST's historical performance and a forward-looking CPD.

6. BENEFITS OF THE PRICE REGULATION PROPOSAL

Q. WILL YOU PLEASE ENUMERATE THE WAYS IN WHICH YOUR PROPOSAL BENEFITS CONSUMERS?

[16] SPR issued its Fourth Set of Data Requests to U S WEST on January 24, 2000. We finally received a reply in late July, 2000.

[17] This estimate is based on SPR's analysis of information contained in J. Abel and Michael E. Clements, "A Time Series and Cross-Sectional Classification of State Regulatory Policy Adopted for Local Exchange Carriers," Divestiture to Present (1984-1998), National Regulatory Research Institute (December 1998).

A. My proposal will provide many tangible benefits to consumers. Basic/essential retail services are governed separately from competitive/advanced services and wholesale services. The opportunity to cross-subsidize among these service groups is eliminated. Basic service customers are thus protected from the possibility of having to subsidize advanced/competitive and wholesale services. While rate rebalancing is an important objective, the mechanisms in this plan ensure rate stability as rebalancing occurs over time.

The proposed plan will include a five-year "hard cap" for those basic services identified by the Commission Staff. As I have stated, this hard cap prevents any increase in the prices of specified services over the five-year period.

The inclusion of a productivity adjustment that embodies a CDP ensures that basic service customers also benefit from the efficiencies in U S WEST's overall operations over the period of the plan.

Consumers also stand to benefit from the creation of separate baskets for basic/essential and competitive/advanced services. U S WEST now has incentive to provide innovative services and service packages, including pricing plans, that have not been available heretofore.

Finally, in my opinion, competition will develop more efficiently through the implementation of this price regulation plan than under ROR. As a result, consumers can expect more choices from U S WEST as well as its competitors.

Q. **WILL YOU PLEASE EXPLAIN HOW YOUR PROPOSAL WILL PROMOTE COMPETITION?**

A. The alternative regulation proposal I am recommending will promote competition in several ways. First, it will protect competitors against cross-subsidy far more effectively than traditional ROR regulation. In short, any losses that U S WEST might incur in its competitive services cannot be made up by increasing basic rates which are capped under this plan for five years. Second, because this plan will permit U S WEST to do some rate rebalancing, it will produce more efficient prices which will, in turn, promote more efficient entry. Finally, by affording U S WEST

1 greater flexibility in offering and pricing new services and packages of services, this
2 plan will encourage more robust competition and help ensure that the varying needs
3 of customers are met in a timely fashion.

4 7. CONSTITUTIONAL AND LEGAL CONSIDERATIONS

5 Q. ARE YOU AWARE OF THE PROVISIONS IN THE STATE
6 CONSTITUTION AND THE JUDICIAL PRECEDENTS THAT HAVE A
7 BEARING ON THE COMMISSION'S RATE-SETTING POLICIES?

8 A. Yes.

9 Q. DOES THE PLAN YOU ARE RECOMMENDING FALL WITHIN
10 THESE LEGAL PARAMETERS?

11 A. Yes.

12 Q. ON WHAT DO YOU BASE YOUR ANSWER TO THE PREVIOUS
13 QUESTION?

14 A. Although I am not appearing as a legal expert and do not represent myself as an
15 expert on Arizona law, I have perused the relevant provisions of the State
16 Constitution and the key judicial opinions and have discussed them with the legal
17 Staff of the Commission. I am relying primarily on the opinion of the Staff that the
18 Commission has the discretion to implement the plan I am recommending.

19 Q. ARE YOU AWARE THAT U S WEST HAS TAKEN A CONTRARY
20 POSITION IN PENDING LITIGATION?

21 A. Yes.

22
23

Q. WOULD YOU ELABORATE ON YOUR UNDERSTANDING?

A. Yes. Specifically, under the plan I am proposing, services in Basket Three ("Advanced/Competitive/Nonessential") are flexibly priced. "Just and reasonable" rates are determined by marketplace forces, without explicit reliance on the fair value of U S WEST's property in the State devoted to the provision of public service. It is my understanding that U S WEST has taken the position that the Commission may not lawfully establish rates in any manner other than by reference to the fair value of a utility's assets. U S WEST is objecting to the Commission's treatment of services offered by CLECs and is apparently seeking to have all carriers held to the same regulatory standards in Arizona. While I understand that U S WEST has a number of services subject to flexible pricing today, the company's challenge to the Commission's authority, if successful, could foreclose adoption of this plan or any similar price cap plan.[18]

Q. IN YOUR OPINION, WHAT ARE THE IMPLICATIONS OF U S WEST'S CHALLENGE OF THE COMMISSION'S AUTHORITY?

A. As I suggested, the Commission should be cautious about approving the alternative form of regulation that I am proposing while U S WEST continues to challenge its authority.

Q. WHAT COURSE OF ACTION WOULD YOU SUGGEST TO RESOLVE THE CONSTITUTIONAL AND LEGAL UNCERTAINTY RAISED BY U S WEST'S LITIGATION?

A. I recommend that, as a condition to making the plan I am proposing effective, U S WEST should be required to withdraw all pending litigation in which it is a plaintiff seeking to have competitive pricing plans declared illegal in Arizona. Specifically, I

[18] I do not offer an opinion on whether the Commission would be required to eliminate the currently authorized competitive services tariff, but that is a distinct possibility.

1 believe U S WEST should move to dismiss all appeals from the issuance of
2 Certificates of Convenience & Necessity where the issue raised is whether the
3 Commission may lawfully set initial rates without a fair value finding or whether the
4 Commission may lawfully prescribe flexible rates by determining them to be just and
5 reasonable predicated on the existence of a competitive marketplace. As a further
6 condition, U S WEST should agree not to pursue similar litigation during the term
7 of a price cap plan. I am advised by Staff that conflicting decisions have been issued
8 by the Superior Court in similar litigation over these issues. Thus, I recommend, as
9 a final condition, that U S WEST should agree to intervene in support of the
10 Commission in any litigation filed by any other party challenging the Commission's
11 authority to adopt a plan such as the one I am proposing.

12 ## 8. SERVICE QUALITY IMPROVEMENT

13 Q. ARE YOU AWARE OF THE COMMISSION'S CONCERNS ABOUT
14 EXISTING SERVICE QUALITY PROBLEMS INVOLVING U S WEST'S
15 OPERATIONS IN ARIZONA?

16 A. Yes. The problems are apparently quite serious and I applaud the Commission for
17 addressing them aggressively. I should point out, however, that these problems
18 have arisen under traditional ROR regulation.

19 Q. ISN'T IT TRUE THAT UNDER A PRICE REGULATION PLAN, A
20 COMPANY MAY HAVE THE INCENTIVE TO REDUCE SERVICE
21 QUALITY TO INCREASE ITS PROFITS? IF SO, THEN PLEASE
22 EXPLAIN HOW YOUR PROPOSAL WOULD IMPACT THE SERVICE
23 QUALITY ISSUES.

24 A. Under price regulation plans generally, companies have the incentive to become
25 more efficient. One risk is that they will seek to eliminate costs and increase profits
26 by reducing the quality of service, for example, by laying off installation and repair
27 technicians. While such actions may prove productive in the long run, especially as

firms face increased competition, there may be some short-term risk that the quality of service — especially for the non-competitive offerings in Basket One — could be adversely affected. Other regulatory bodies that have adopted price regulation have had to deal with this potential problem. If the Commission is concerned about offsetting this incentive to reduce service quality, it can build penalties into this alternative regulation plan tied to improving and maintaining quality of service.

Q. SPECIFICALLY, WHAT WOULD YOU RECOMMEND?

A. To ensure that service quality does not deteriorate in the future, the Commission could put U S WEST on notice that there will be an additional offset to the price cap if U S WEST falls below required quality-of-service standards in the previous year. Such a service quality offset would be used if U S WEST's overall service quality were to decline based on the criteria in all areas of the current service quality tariff: (1) access to repair and business offices; (2) held orders; and (3) out-of-service repair times. In light of the Commission's continuing concerns about U S WEST's current service quality problems, an initial offset may be warranted at this time. The Commission can review the company's performance after one year and decide whether to remove the initial offset, reduce it, maintain it or increase it, depending on the company's performance. While it may be necessary to assess penalties to correct existing problems[19] and to employ an additional productivity offset to protect against any overall degradation in service during the term of a price-cap regulation plan, I want to emphasize my belief that the alternative regulation plan I am proposing will create positive incentives for U S WEST to improve its performance, especially by making the necessary new investments in plant and equipment.

[19] We agree with Utilitech that U S WEST should not treat service quality penalties as allowable expenses for ROR purposes. *See* Testimony of Michael L. Brosch.

9. INVESTMENT INCENTIVES

Q. BEYOND PROVIDING THE APPROPRIATE INCENTIVES AND PENALTIES FOR U S WEST TO MAKE THE INVESTMENTS NECESSARY TO IMPROVE SERVICE QUALITY, DOES YOUR ALTERNATIVE REGULATION PROPOSAL ACCELERATE INFRASTRUCTURE INVESTMENT?

A. In general, this alternative approach to regulation gives U S WEST a greater incentive to invest since it, like its competitors, can price advanced, competitive, and non-essential services (including new service packages) "to market." Moreover, as I explained earlier, this approach can also be expected to promote more robust competition with the result that all suppliers of telecommunications services will invest more than they otherwise would. Finally, alternative regulation plans in other states often include specific commitments to make accelerated investments in certain types of infrastructure. Typically, these commitments are proposed by the companies when they propose an alternative form of regulation. Since U S WEST is not seeking alternative regulation in this proceeding, it has understandably made no such commitment. I would note, however, that the company is free to make such a specific commitment at any time during this proceeding and might be encouraged to do so by the Commission. Such a commitment could initially be focused on specific investments needed to upgrade service quality and extend the reach of its DSL deployment.

10. CONCLUSION

Q. COULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. Yes. U S WEST proposes a plan that effectively retains ROR regulation and thus fails to provide effective safeguards against cross-subsidy, incentives for service quality improvement or incentives for infrastructure investment in Arizona. U S

1 WEST's proposal would be costly to administer and oversee. It also carries with it
2 an $88 million increase in basic service rates.

3 In the alternative, I have presented a price regulation plan that can prevent cross-
4 subsidies, creates incentives for service quality improvement and stimulates
5 infrastructure investment by U S WEST. Finally, the price regulation plan I am
6 recommending has concrete benefits for consumers of both basic and advanced
7 services, including a five-year cap on basic service.

8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9 **A.** Yes, it does.

10

Price Cap Plan for US West Proposed by SPR on Behalf of ACC Staff

Proposed Initial Service Baskets

BASKET ONE	BASKET TWO	BASKET THREE
Basic/Essential Retail Services Basket	**Essential Wholesale Services Basket***	**Advanced/Competitive/Nonessential Services Basket (Tariff Subsection)**
Subject to Price Cap Index (GDPPI - 4.2)	*20% reduction in access over 5 years with freeze on prices of other services*	*Granted Streamlined Treatment as in ACC R14-2-1109 & R14-2-1110*
Flat Rate Residential	Switched Access Services	Transparent LAN Service (Sect 1)
Flat Rate Business	Special Access Services	Frame Relay Service (Sect 2)
2 & 4 Party Service	Wholesale Services to non-LEC Payphones (i.e., answer supervision, payphone access line)	Megabit Services (Sect 3)
Exchange Zone Increment Charges	Other non-UNE wholesale offerings	LAN Switching Services (Sect 4)
Low Use Option Service		Exchange Services--Intra Call (Sect 5)
Service Stations Service		MTS (Sect 6)
Telephone Assistance Programs		Obsolete MTS (Sect 106)
Individual PBX Trunks, incl features		Traffic Data Report Service (Sect 10)
Caller ID Block		Inside Wire Maintenance (Sect 13)
Toll Blocking		Switched Digital Services Offerings-Switchnet 56 (Sect 15)
900/976 Blocking		ATM Relay Service
Basic Listing Service		Two - point MTS (Sect 6)
Existing Service Packages		1800 US West (Sect 6)
		DA (local & LD) (Sect 6)
		US West Complete a Call (Sect 6)
		Operator Verification/Interrupt (Sect 6)
		Optional Calling Plans (Sect 6)
		Outward WATS (Sect 7)
		800 Service (Sect 7)
		800 Service Line (Sect 7)
		Large Volume Discount (Sect 7)
		Centrex Centron (Sect 9)
		New "Stand-Alone" Services
		New Service Packages

* Wholesale services that are UNEs subject to the 1996 Act are not included in this basket as they are subject to FCC rules on UNE pricing.

Note: SPR's categorization of services among the baskets is based on discussions that we have held with ACC Staff throughout this process.

VITAE OF
HARRY M. SHOOSHAN III

Received a B.A. *magna cum laude* from Harvard University in Government and a J.D. from Georgetown University Law Center.

Before co-founding Strategic Policy Research, Inc. ("SPR"), Mr. Shooshan served for eleven years on Capitol Hill. He was chief counsel and staff director of the Subcommittee on Communications, U.S. House of Representatives and was active in congressional efforts to reform the nation's communications laws.

Mr. Shooshan specializes in communications public policy analysis, regulatory reform and the impact of new technology and competition. He also advises on business strategies and market opportunities.

Mr. Shooshan is the author of numerous studies and articles dealing with various aspects of the video marketplace, including the transition to digital television and the impact of the Internet. He is one of the nation's leading authorities on telecommunications infrastructure and its relationship to economic development and to the global competitiveness of U.S. businesses.

Mr. Shooshan coordinates SPR's telecommunications and electronic mass media practice in Europe and has advised clients in the United Kingdom, Canada and the Caribbean.

Mr. Shooshan has testified before several congressional committees, before the Federal Communications Commission ("FCC") and several state commissions. He has also testified as an expert witness in litigation concerning broadcasting, cable and wireless cable, and in proceedings before the Copyright Arbitration Royalty Panel concerning satellite broadcasting.

From 1976 to 1991, he was an adjunct professor of law at Georgetown University Law Center, teaching regulation and communications law.

EDUCATION

GEORGETOWN UNIVERSITY LAW CENTER
J.D., Communications Law, 1975

HARVARD COLLEGE
B.A., Government, *magna cum laude*, 1968

EMPLOYMENT

1992-Present	STRATEGIC POLICY RESEARCH, INC. — Bethesda, Maryland *Principal*. Telecommunications and public policy consulting services for a variety of clients in the telecommunications industry.
1989-1992	NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC. — Washington, D.C. *Vice President*. Telecommunications and public policy consulting services for a variety of clients in the telecommunications industry.
1980-1989	SHOOSHAN & JACKSON INC. — Washington, D.C. *Principal*. Telecommunications and public policy consulting services for a variety of clients in the telecommunications industry.
1975-1980	SUBCOMMITTEE ON COMMUNICATIONS, INTERSTATE AND FOREIGN COMMERCE COMMITTEE, U.S. HOUSE OF REPRESENTATIVES — Washington, D.C. *Chief Counsel/Staff Director*. Legislative, oversight and investigating activities relating to telecommunications.
1974-1975	SUBCOMMITTEE ON COMMUNICATIONS AND POWER, INTERSTATE AND FOREIGN COMMERCE COMMITTEE, U.S. HOUSE OF REPRESENTATIVES — Washington, D.C. *Staff Director*. Legislative, oversight and investigating activities relating to telecommunications and energy.
1969-1974	U.S. HOUSE OF REPRESENTATIVES — Washington, D.C. *Administrative Assistant to the Honorable Torbert H. Macdonald*. Legislative and political coordination and support.

PROFESSIONAL ACTIVITIES

Member, Federal Communications Bar Association.

TESTIMONIES

Testimony before the Pennsylvania Public Utility Commission on behalf of Bell Atlantic - Pennsylvania. June 26, 2000.

Testimony before the Board of Public Utilities in New Jersey on behalf of Bell Atlantic -New Jersey, BPU Docket No. TO99120934. May 17, 2000.

Testimony before House Public Utilities Committee, General Assembly of Ohio on Substition House Bill 314 on behalf of Ameritech Ohio. April 12, 2000.

Surrebuttal testimony before the Illinois Commerce Commission on behalf of Ameritech Illinois. Docket No. 98-0860. Ameritech Illinois Ex. 5.2 (Shooshan). April 26, 2000

Rebuttal testimony before the Illinois Commerce Commission on behalf of Ameritech Illinois. Docket No. 98-0860. Ameritech Illinois Ex. 5.1 (Shooshan). March 1, 2000.

The Benefits of Open Access: Consumer Control, Lower Prices, Expanded Investment and New Jobs. Testimony on behalf of the OpenNET Coalition. Presented before the House Committee on Consumer Affairs of the General Assembly of Pennsylvania. Hearing on House Bill No. 1516. Harrisburg, Pennsylvania. December 14, 1999.

Testimony on "open access" before the City Council. Buffalo, New York. October 28, 1999.

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STRATEGIC
POLICY
RESEARCH

EXHIBIT
S-3
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF U S WEST COMMUNICATIONS, INC., A COLORADO CORPORATION, FOR A HEARING TO DETERMINE THE EARNINGS OF THE COMPANY, THE FAIR VALUE OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN	)	DOCKET NO. T-1051B-99-105

SURREBUTTAL TESTIMONY OF HARRY M. SHOOSHAN III STRATEGIC POLICY RESEARCH, INC.

September 8, 2000

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SURREBUTTAL TESTIMONY OF HARRY M. SHOOSHAN III

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SURREBUTTAL TESTIMONY OF HARRY M. SHOOSHAN III

1. INTRODUCTION

Q. ARE YOU THE SAME HARRY M. SHOOSHAN III WHO TESTIFIED PREVIOUSLY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I am responding to the Rebuttal Testimony of Qwest Corporation witness Carl Inouye and of Dr. William Taylor of n/e/r/a on behalf of Qwest Corporation.

Q. WHAT ISSUES RAISED BY MR. INOUYE AND DR. TAYLOR WILL YOU ADDRESS IN YOUR SURREBUTTAL TESTIMONY?

A. I will address Mr. Inouye's criticisms of the price regulation plan that I proposed on behalf of Staff in my Testimony ("the Staff Plan"), specifically his contentions that:

- The Staff Plan does not provide Qwest with adequate flexibilty for pricing existing services [Inouye at 2, 4-7];
- The Staff Plan actually removes existing pricing flexibility [Inouye at 2, 7];
- The Staff plan imposes rate reductions that would otherwise not occur [Inouye at 2];
- The Staff Plan should not contain an offset related to service quality [Inouye at 18];

- The Staff Plan should not anticipate additional investment commitments by Qwest [Inouye at 19]; and
- The Staff Plan should not be conditioned on Qwest's commitments regarding litigation [Inouye at 18].

I will address Dr. Taylor's criticisms of the Staff Plan, specifically his contentions that:

- The Staff Plan makes a number of calculation errors in deriving the appropriate productivity offset [Taylor at 3, 6, 10-13],
- The Staff Plan fails to provide Qwest with an adequate opportunity to rebalance its rates and is inconsistent with recommendations I have made elsewhere [Taylor at 6-9]; and
- The Staff Plan is not an appropriate tool for dealing with problems of service quality (*i.e.*, that it is "too blunt an instrument") [Taylor at 13] and that the approach taken will diminish the effects and incentives of the Commission's service quality rules [Taylor at 14].

I will rebut Mr. Inouye's Testimony with respect to the alternative price regulation plan he offers on behalf of Qwest ("The Qwest Plan") [Inouye at 8 *et seq.*]. Specifically, I will address his recommendations that:

- Switched access should be in the same basket as basic local exchange service [Inouye at 8];
- Second lines should be included in Basket 3 [Inouye at 10];
- There should be no "hard cap" applied to any of the services in Basket 1 [Inouye at 11];
- The initial term of the price regulation plan should be three years with Qwest having an option to renew for three additional years or return to rate-base rate-of-return regulation [Inouye at 14]; and
- Competitive zones should be used to identify services that would be moved to Basket 3 [Inouye at 12].

2. PRICING FLEXIBILITY

Q. BOTH MR. INOUYE [AT 2, 4-7] AND DR. TAYLOR [AT 6-9] CRITICIZE THE STAFF PLAN AS NOT PROVIDING QWEST WITH THE FLEXIBILITY IT NEEDS AND, MORE SPECIFICALLY, THE FLEXIBILITY TO REBALANCE RATES OR TO PRICE EXISTING SERVICES. WOULD YOU COMMENT ON THEIR CRITICISMS OF THE STAFF PLAN?

A. For services in Basket 3, the intent of the Staff Plan is to provide Qwest with the same pricing flexibility as its competitors have today; that is, the flexibility to price any retail service within a range bounded by a ceiling specified in a tariff and a floor of total long-run incremental cost.[1] Mr. Inouye objects to the fact that some services that are afforded flexible pricing today would not be placed in Basket 3 of the Staff Plan [Inouye at 5]. I would point out that I have assigned existing services to one of the three baskets proposed in the Staff Plan based discussions with the Staff as to which services have presently been classified as competitive by the Commission and, in any event, the breakdown in Attachment 1 to my Testimony is meant to be illustrative, not dispositive.[2] My Testimony clearly stipulates that any service that has been declared "competitive" or for which Qwest has received flexible pricing authority to date should be placed in Basket 3 at the outset of the price regulation plan. To the extent that my description of Basket 3 does not include these services, I would propose to modify my proposal accordingly [Shooshan at 11, 12, 13].

Mr. Inouye and Dr. Taylor are principally concerned about the fact that I have proposed separate treatment for what I refer to as "wholesale services" and, in particular, would not place carrier access in the same basket as basic local exchange

[1] Mr. Inouye suggests a different "price cap" arrangement for Basket 3 that I discuss subsequently. *See infra.* at 14.

[2] *See* note to Attachment 1 of my Testimony.

service [Inouye at 8, 10, 11; Taylor at 8, 9]. They further object to the Staff Plan's requirement that intrastate access prices be reduced (to current interstate levels over five years)[3] without the opportunity to raise rates for basic local exchange service (which is how they define "rebalancing") [Inouye at 6, 7, 11; Taylor at 8, 9].

Q. WOULD YOU ELABORATE ON YOUR DISAGREEMENT WITH MR. INOUYE AND DR. TAYLOR ON THE ISSUE OF ACCESS CHARGE REDUCTIONS AND REBALANCING?

A. Yes. Let me start with a point of agreement. I concur with Mr. Inouye and Dr. Taylor that current pricing is not sustainable. As I wrote in a paper on the subject of rate rebalancing:

> In a market system, prices function as signals that guide production and consumption decisions. If prices send faulty signals, uneconomic consumption and investment decisions are the likely consequences, with attendant sacrifices of economic welfare.[4]

In particular, one of the reasons we have not seen more competition develop for basic local exchange service is that the prices for that service have been set low to achieve public policy goals (*i.e.*, maintain affordable service and expand penetration). It is also difficult to sustain the historical cost loadings on services that face competition (*i.e.*, carrier access), especially since it is the "mispricing" of those services that, in part, makes them especially attractive to competitiors.

My disagreements with Mr. Inouye and Dr. Taylor are not so much with the problem they posit, but with the solution they recommend— that is, that the costs in

[3] Dr. Taylor's semantic quibble [Taylor at footnote 9] notwithstanding, he fundamentally disagrees with having the Commission fix reductions in the very access charges he says are inefficiently priced today. I am puzzled why Dr. Taylor, who is so concerned about achieving efficient pricing, would object to the Commission moving intrastate access prices in this direction (*i.e.*, to parity with interstate access charges).

[4] John Haring and Harry M. Shooshan III, *Cutting the Gordian Knot of Rate Rebalancing*, prepared for the 29th Annual Conference of the Institute of Public Utilities, "Reconciling Competition and Regulation," Williamsburg, Virginia (December 5, 1997).

question must be recovered by increasing prices for basic local exchange service as access prices are reduced. And, I emphasize that Qwest is asking the Commission for approximately a $45-million increase in basic service rates [Teitzel Supplemental Testimony at 41] while proposing only minimal reductions in carrier access charge [Shooshan at 3]. The Staff Plan offers a better alternative. Under the Staff Plan, Qwest has the ability to rebalance by taking advantage of (1) retail pricing flexibility for services in Basket 3 (including new services and service packages); and (2) the same service packaging freedom as is afforded their competitors. Put another way, the Staff Plan would permit Qwest to recover its costs by offering consumers innovative new services and packages of services, rather than by simply raising basic local exchange rates. In effect, the Staff Plan can be said to permit consumers to select "rebalanced rates" from among a variety of value-added options rather than to forcing consumers who only want— or who rely on— basic local exchange service to pay more.

Contrary to Dr. Taylor's assertion [Taylor at 9], the Staff Plan *does* permit Qwest to recover its fixed loop costs over a wider range of services and offerings— it just does not permit Qwest to do so by raising the rates for basic local exchange service. There are many "variations" of price cap plans and more than one approach to rate rebalancing. The Staff Plan permits rebalancing to take place over time without *forcing* consumers who only want "plain old telephone service" to pay more.

Q. DR. TAYLOR ASSERTS THAT, UNDER THE STAFF PLAN, NO RATES IN BASKET 1 COULD BE INCREASED, SINCE ALL SERVICES ARE SUBJECT TO WHAT YOU CALL A "HARD CAP," AND THAT THESE RATES COULD ONLY GO DOWN OVER TIME AS THE PRICE CAP IS APPLIED [TAYLOR AT 6, 7]. IS HE CORRECT?

A. No, Dr. Taylor is incorrect. Only "basic" services in Basket 1 are subject to the "hard cap" [Shooshan at 13]. Thus, for example, the prices for flat rate residential and flat rate business services that are in effect when the price regulation plan is initiated could not be increased for five years. Prices for some services in Basket 1

(*e.g.*, existing service packages) could be increased as long as the weighted average price level of all services within the basket is less than or equal to the price cap index. If an increase would cause the weighted average price level to exceed the price cap index, then the prices of other services in the basket must be reduced. Presumably, Dr. Taylor is familiar with these mechanics since they are typical of most price regulation plans.

Q. DR. TAYLOR SUGGESTS THAT THE STRUCTURE OF THE STAFF PLAN IS IN CONFLICT WITH PREVIOUS RECOMMENDATIONS THAT YOU HAVE MADE ABOUT RATE REBALANCING [TAYLOR AT 8]. WOULD YOU COMMENT?

A. I can say unequivocally that the Staff Plan is consistent with the view expressed in the paper that Dr. Taylor cites.[5] Moreover, the suggestion that a price cap plan must permit basic local exchange rates to be increased as access charges are reduced is an example of what the paper refers to as pointing the rebalancing "gun" at regulators' heads. While reasonable people might disagree about how many degrees of freedom to give Qwest under the circumstances, I believe it is unreasonable for Dr. Taylor to suggest that the Staff Plan "rules out any kind of rate rebalancing as part of its proposed reduction in carrier access charges" [Taylor at 8].

3. PRODUCTIVITY OFFSET

Q. DR. TAYLOR ASSERTS THAT YOU HAVE ERRED IN A NUMBER OF RESPECTS IN CALCULATING THE PRODUCTIVITY OFFSET IN

[5] Haring and Shooshan (1997).

THE STAFF PLAN. WOULD YOU PLEASE DESCRIBE DR. TAYLOR'S ARGUMENTS?

A. Specifically, Dr. Taylor argues that I should have included data prior to Qwest's most recent rate case in Arizona; that I did not employ the correct formula for developing a productivity offset in a price cap plan; and that productivity should be based on industry performance rather than individual company performance. Dr. Taylor further criticizes the data upon which I relied. He suggests that the use of the difference between rate-adjusted operating revenues and deflated expenses to approximate growth in outputs and inputs is too imprecise. The implication here is that a full-blown Total Factor Productivity ("TFP") study is required. Finally, Dr. Taylor criticizes the reliance on intrastate data only [Taylor at 10-13].

Q. HOW DO YOU RESPOND TO DR. TAYLOR'S ASSERTIONS?

A. As a general matter, it is important to keep in mind that price cap plans, including components such as productivity offsets, are developed through a variety of means across jurisdictions. Further, price cap plans are often agreed to in settlement proceedings between the carrier and the regulator. Therefore, there is no single "right way to do things" and no hard-and-fast rules for the development of a productivity offset in a price cap plan.

In response to Dr. Taylor's first point, regarding the appropriate time frame for data to estimate Qwest's average annual productivity growth, we found it appropriate to analyze data following Qwest's most recent rate case since changes in output, approximated by changes in revenue, would be less subject to changes in price levels and structures resulting from periodic rate cases. Further, the data prior to the 1993 rate case reflect a different industry structure where competitors were few and were focused on limited service categories. With a new set of "rules" allowing unlimited competitive entry and increased pricing flexibility, the most recent data (1995-1998) upon which we rely are best able to predict the future growth in Qwest's output.

With regard to the "correct" formula for developing a productivity offset, there are a number of alternatives now being used by the FCC and the various states. In fact, some productivity offsets are set by statute without reference to a particular formula. For example, the productivity offset in price cap plans for all incumbent local exchange carriers ("ILECs") in Tennessee and Wisconsin is established in the statute.[6]

With regard to whether an estimate of productivity growth in a price cap plan should be industry-wide or company-specific, no single method is uniformly adopted across the states. For the FCC price cap plan, an industry-wide estimate makes sense, since the productivity offset is uniformly applied to all ILECs under price cap regulation.[7] The Tennessee productivity offset is also generally applicable since it is embedded in a statute. In the Wisconsin statute regarding price cap regulation, the initial productivity offset is greater for ILECs with over 500,000 access lines (*i.e*, Ameritech Wisconsin, 3 percent) than for smaller ILECs in the state (2 percent).[8] Many states have initiated price cap regulation specifically for the regional Bell Operating Company rather than for the industry statewide. For example, in Illinois, the Commerce Commission considered Ameritech Illinois-specific productivity data in the development of its price cap mechanism.[9] Further, as this Commission considers whether to remove Qwest from traditional rate of return regulation, it is appropriate that the Commission choose a productivity growth estimate that reflects Qwest's own costs and revenues, and the financial impact on Qwest rather than relying on industry-wide data. At this time, neither the Commission nor Qwest has enough information to gauge whether the use of industry-wide data is relevant in Arizona.

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[6] Tennessee Code, Section 65-5-209(e); and Wisconsin Statutes, Telecommunications Utilities Price Regulation, Section 196.196.

[7] In fact, the FCC industry-wide estimate has historically fell short in this respect, as it has not always included any mid-size ILECs that have elected price cap regulation.

[8] Wisconsin Statutes. Telecommunications Utility Price Regulation, Section 196.196. 2(c).

[9] Illinois Commerce Commission, *Order*, Docket Nos. 92-0448/93-0239 (October 11, 1994).

Further, we had considered whether to use "unseparated" data, as Dr. Taylor recommends. We discovered, however, that the FCC and this Commission's accounting rules were not consistent and determined that it would be most appropriate to consider intrastate data only. Finally, if one were to use both intrastate and interstate data, the estimated productivity growth for the company as whole would be higher, since interstate productivity growth is generally higher than intrastate productivity growth. Therefore, our estimate of Qwest's productivity growth is conservative but appropriate, given that the price regulation plan I propose covers only Qwest intrastate services.

The fact that we relied on revenues and costs, which Dr. Taylor believes are only "rough" approximations of TFP [Taylor at 12], is not significant. To conduct a TFP study is an expensive and complex endeavor that, in my view, is unnecessary in this proceeding. Moreover, prior to the filing of Staff's direct case, Qwest was willing to rely on its own estimate of productivity growth using the same data upon which we relied. Qwest introduced these data in the record when it provided its own productivity growth estimates in an attachment in its direct case in this proceeding [Direct Testimony of George A. Redding, Exhibit GAR-12] and when it provided Staff with the backup in response to Data Request No. SPR-03-001.[10]

Our methods and data were reasonably applied in this proceeding. As I have noted, a variety of methods have been employed across the states. And, the results we obtained are not inconsistent with those in other states [Shooshan at 14]. Thus, I find that Dr. Taylor's arguments are not compelling and urge that they be disregarded.

[10] While Qwest has not offered an alternative measure of productivity in its rebuttal case, Dr. Taylor graphs on page 10 of his Testimony the same time series of Qwest's productivity growth from 1988-1998, using the very data he criticizes.

4. SERVICE QUALITY

Q. BOTH MR. INOUYE AND DR. TAYLOR OBJECT TO THE STAFF PLAN HAVING A COMPONENT TO DEAL WITH SERVICE QUALITY AND SPECIFICALLY TO YOUR SUGGESTION THAT AN INITIAL OFFSET MIGHT BE WARRANTED IN LIGHT OF EXISTING PROBLEMS WITH SERVICE QUALITY [INOUYE AT 18, 19; TAYLOR AT 13, 14]. WOULD YOU RESPOND TO THEIR OBJECTIONS, INCLUDING THE CONTENTION THAT SUCH AN OFFSET WOULD UNDERMINE QWEST'S INCENTIVES TO MAKE THE INVESTMENTS IT HAS ALREADY PROMISED THE COMMISSION AS A CONDITION OF ITS RECENT MERGER WITH US WEST [INOUYE AT 18; TAYLOR AT 13]?

A. I disagree with their assertions. In order to provide effective safeguards for consumers, regulators must control both price and quality. To control the former without an effective means of controlling the latter does not constrain the regulated firm from exercising market power. In effect, Dr. Taylor is acknowledging that Qwest has market power and, if given the opportunity and the incentive, will exercise it by degrading quality further or "disinvesting" [Taylor at 14, 16]. Further, as Dr. Taylor presumably knows, one of the acknowledged weaknesses of price regulation is that it can give the regulated firm an incentive to reduce service quality in order to maximize profits.[11] In order to offset this incentive— or in response to observed reductions in service quality under price regulation— regulatory bodies have taken a variety of steps to remedy the problem, including the use of offsets. In my Testimony, I propose a service quality offset to be used *only if* the company fails to meet the mark set in its service quality tariff. This further penalty can be seen as

[11] Professor Sir Bryan Carsberg, "Lessons from the British Experience with Price Cap Regulation," *Telecommunications in a Competitive Environment, Proceedings of the Third Biennial Telecommunications Conference*, sponsored by n/e/r/a (April 12-15-1989).

a "sword of Damocles" to hold over the company's head to induce it to perform. If the problem is intractable, and the "sword" has to be used, consumers will at least be assured that the prices they pay will more closely match the quality of service they are receiving. In the long run, of course, this suggests a downward spiral that I hope can be avoided. A far better outcome is that a combination of Qwest's commitments to the Commission in the context of its merger with US WEST, competitive realities and the overall incentives created by the Staff Plan will correct the problem without the need for a price cap offset (or additional fines and penalties, for that matter). And, as to the concerns about imposing an initial offset to deal with existing service quality problems, another option would be to delay the start of a price regulation plan until Qwest has brought its service up to acceptable levels.

Q. HAVE YOU RESEARCHED HOW OTHER STATES ADDRESSED SERVICE QUALITY IN THE CONTEXT OF ALTERNATIVE REGULATION?

A. Yes. I investigated the treatment of service quality in various states' price regulation plans. In at least 13 states, additional service quality standards and/or penalties were developed in conjunction with their alternative regulation plans.[12] Rhode Island, Illinois, Wisconsin and Massachusetts, for example, have specifically included a service quality index as an adjustment factor in their price cap formulas as contained in the Staff Plan.[6] It is perfectly appropriate for this Commission to consider inclusion of a service quality offset, particularly given the recent problems with the quality of Qwest's service in Arizona.

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[12] Vivian Witkind Davis and Michael Clements, "Recent Developments in Telecommunications Service Quality Regulation," National Regulatory Research Institute (Spring 1998 Survey of State PUCs).

[6] Other means of dealing with service quality under price caps are financial penalties levied against the firm and/or compensation paid directly to the aggrieved consumers. *See* Carsberg, at 201. I would note that both of these means have been employed in Arizona with the result that service quality has still declined in recent years.

5. INVESTMENT AND LITIGATION COMMITMENTS

Q. MR. INOUYE OBJECTS TO THE SUGGESTION IN YOUR TESTIMONY THAT QWEST MAKE CERTAIN INFRASTRUCTURE COMMITMENTS OR CONCESSIONS CONCERNING LITIGATION AS CONDITIONS OF ANY PRICE REGULATION PLAN [INOUYE AT 19-20]. HOW DO YOU RESPOND?

A. Mr. Inouye cites the investment commitments required by the Commission in approving Qwest's merger with US WEST as all that is necessary [Inouye at 19]. I point out in my Testimony that companies in other states have proposed such commitments in conjunction with the transition to price regulation [Shooshan at 20]. The merger approval process in Arizona was a separate matter and presumably the merger was evaluated by the Commission under different criteria than apply in this case. As such, it would not be unreasonable for the Commission to expect additional infrastructure commitments by Qwest (possibly increasing the pace and reach of its DSL deployment, Shooshan at 19) as a condition of a price regulation plan.

Mr. Inouye also objects to the recommendation in my Testimony that Qwest agree to certain conditions respecting pending and future litigation [Shooshan at 17]. His basis for objection is that the Staff Plan is not favorable enough to Qwest to warrant these conditions [Inouye at 18]. Since I believe the Staff Plan does give Qwest the requisite pricing flexibility—in addition to other advantages, I do not find his objection compelling. I urge the Commission to adopt the conditions precisely as I have recommended them.

6. TERM OF PLAN

Q. MR. INOUYE SUGGESTS THAT THE INITIAL TERM OF A PRICE REGULATION PLAN BE SET AT THREE YEARS, RATHER THAN

FIVE YEARS AS YOU SUGGEST [INOUYE AT 14]. HE ALSO PROPOSES THAT, AT THE END OF THREE YEARS, QWEST COULD ELECT WHETHER TO EXTEND THE PLAN FOR ANOTHER THREE YEARS OR REVERT TO RATE OF RETURN REGULATION [INOUYE AT 14]. IS THIS APPROACH DESIRABLE IN YOUR OPINION? AND IF NOT, WHY NOT?

A. This is not a desirable approach. In the first place, the five-year term included in The Staff Plan is preferable in order to maximize the incentive effects of price regulation. The company seeks a shorter term because "it is impossible to predict the outcome of the ratemaking portion of this docket" [Inouye at 14]. The company wants to retain the option of reverting to rate of return regulation after three years if things are not working out as anticipated.[14] It seems to me that this uncertainty will be removed when the Commission resolves the matters relating to rates, which presumably it will do prior to the initiation of any price cap plan. At that time, if the company has concerns, it can always elect to remain under rate-of-return regulation. If the company nevertheless insists on a shorter term, I would not strongly object, however. What *is* problematic is giving the company *alone* the option to elect whether to extend the plan at the end of the initial term, whatever its duration. The Staff Plan anticipates that the Commission— not the company— will decide whether and for how long to extend the plan, once it has ascertained that the plan is "actually providing the expected benefits to consumers" [Shooshan at 3]. Finally, I note that the Qwest Plan seeks to "eliminate the possibility of a rate case in 6 years whereby any competitive losses would be passed back to basic customers at that time" [Inouye at 15]. If protecting basic customers from bearing any competitive losses is a concern (which it is), then the risk remains after three years just as after six. One of the strengths of price regulation is that it breaks the formal linkage between "regulatory" costs and prices, thereby removing the opportunity for

[14] This is especially troubling in the context of the company's competitive zone proposal as I discuss subsequently in this Surrebuttal Testimony. *See infra* at 16.

a company to "game" the process by arbitrarily assigning costs to various services, some of which will be more competitive than others. By adopting the Staff Plan, the Commission can signal that it intends to break that linkage and rely on price regulation— rather than the assignment of costs— to protect both consumers and competitors against the risk of cross-subsidy.

7. THE QWEST PLAN

Q. MR. INOUYE OFFERS A PRICE REGULATION PLAN ("THE QWEST PLAN") AS AN ALTERNATIVE TO THE STAFF PLAN [INOUYE AT 15]. WHAT IS YOUR OPINION OF THE QWEST PLAN?

A. On the one hand, I am pleased that Qwest has decided to put a price regulation plan on the table, and I agree with Mr. Inouye that price regulation has a number of benefits that recommend it over traditional rate of return regulation [Inouye at 3]. On the other hand, it is certainly not true that *any* price regulation plan would have these benefits.

The devil, as always, is in the details, and the Qwest Plan is seriously deficient in a number of respects. I divide my concerns into four areas: (1) the structure of the plan; (2) the "population" of the baskets (that is, Qwest's decisions about where existing services are assigned); (3) basket "governance" (that is, the price rules that apply to Qwest's two baskets and to services within baskets); and (4) the linkage to Qwest's "competitive zone" proposal.[15] I now address each of these problem areas in turn.

[15] I have already addressed Dr. Taylor's criticisms of our efforts to arrive at an appropriate productivity offset for services in Basket 1 and have noted that he apparently rejects the use of the productivity data supplied by his own client. *See supra.* at 9. Perhaps it is for that reason that the Qwest Plan chooses not to specify a productivity offset at all.

1 Structure of the Qwest Plan. Qwest proposes two baskets, in effect, eliminating the
2 "wholesale" basket or Basket 2. I prefer the three baskets under the Staff Plan,
3 principally because that structure seeks to segregate "wholesale" from "retail"
4 prices.[16] As competition intensifies, I expect that the attention of the Commission
5 will be increasingly focused on controlling the wholesale prices which govern
6 important inputs competitors need in order to compete with Qwest. My major
7 difference with Mr. Inouye's proposal is that he would place carrier access charges
8 in Basket 1.

9 Population of the Baskets. As I have stated previously, I do not believe it is
10 necessary that carrier access and basic services be in the same basket. First, it is
11 important to keep wholesale prices separate from retail prices. Second, Qwest can
12 use other means of rebalancing rather than raising basic local exchange rates as it
13 seeks to do in this proceeding. While it is a closer call, I would also oppose
14 assigning residential and business lines beyond the primary line and PBX trunks
15 beyond the first trunk to Basket 3 at this time [Inouye at 9, Exhibit CTI-2 at 2]. I
16 recognize that these lines/trunks could be considered "nonessential" and also that at
17 least some consumers may have options for second lines (*e.g.*, wireless phones, cable
18 telephony). However, this decision would be better made by the Commission in a
19 separate proceeding as envisioned by the Staff Plan [Shooshan at 11.].[17] Finally, Mr.
20 Inouye states that "Qwest has previously been granted pricing flexibility for special
21 access/private line" and that the company "has been granted 'streamlined' pricing
22 by the Commission for several existing 'service packages'" and that these offerings
23 should be properly placed in Basket 3 [Inouye at 5]. My understanding is that
24 "intraLATA toll services" have been classified as competitive and that the

[16] As I read Mr. Inouye's Testimony, Qwest does not see the need for a separate wholesale basket because the only existing "service" that Qwest would not assign to one of its two baskets would be UNEs (and presumably local resale) which we agree is governed by a separate set of pricing rules. Thus, our disagreement about whether a third basket is needed can be seen as a disagreement about where services should be assigned. *See* Inouye at 10.

[17] I would not object to Qwest's view that the Commission should specify the elements of the "less rigorous test" envisioned in my Testimony as part of this price regulation plan [Inouye at 6]. I have indicated what such a test might be [Shooshan at 11].

Commission has defined those services as "interexchange Private Line (point-to-point dedicated circuit) Service, and interexchange MTS, WATS, 800 service and optional calling plans."[18] Accordingly, "intraLATA toll services" (as defined) should be placed in Basket 3. To the extent that Qwest has been accorded pricing flexibility for certain existing "service packages," those packages should also be placed in Basket 3. It is certainly the intent of the Staff Plan that Qwest not lose any pricing flexibility that it already has been granted by the Commission as a result of implementing the Staff Plan.

Basket Governanace. The Qwest Plan proposes a revenue cap for Basket 1, thereby rejecting the typical "inflation less productivity" form of price cap. This omission might be explained, as I previously noted, by the fact that their consultant in this case (Dr. Taylor) believes the productivity data Qwest has provided are inappropriate for use by the Commission [Taylor at 12-13]. The lack of an "inflation less productivity" index mechanism denies Arizona consumers the direct benefits of increased efficiencies Qwest can be expected to achieve under price regulation.

Mr. Inouye further opposes the use of a "hard cap" primarily because Qwest seeks to rebalance rates by raising prices for basic services. I have already stated my concerns about the Qwest approach, especially in light of the magnitude of increases for basic services it has proposed in this case. I believe a "hard cap" is a legitimate tool for protecting consumers who rely on basic services, particularly during the initial price cap term.

On the other hand, Qwest should have the flexibility to adjust prices of services in Basket 1 within the overall cap, and Mr. Inouye is correct in observing that the "hard cap" as described in my Testimony [at 12], in conjunction with the price cap formula proposed in the Staff Plan, will tightly constrain Qwest's ability in this respect [Inouye at 6-7]. The Commission could certainly consider reducing the

[18] ACC Decision 59637, April 25, 1996, Finding of Fact 7.

range of services subject to the "hard cap" and/or adjusting the price cap formula if it wants to provide Qwest some additional flexibility within Basket 1.

For Basket 3, Qwest proposes to use a price cap based on the weighted average of prices of the services in that basket plus 15 percent. Prices could be raised, and terms and conditions of services changed with one-day's notice to the Commission. Further, prices could be lowered with no notice to the Commission. This approach has some advantages over the approach to Basket 3 pricing in the Staff Plan [Shooshan at 12-13]. For consumers, it means that, should Qwest seek to raise prices for some services in the Basket such that the adjusted weighted average price cap would be exceeded, it must lower other prices. Under the Staff Plan, it is possible that prices could only go up (unless "checked" by effective competition), as long as they remain below the tariff ceiling set *for that service*. For the Commission, the overall revenue cap proposed by Qwest could be easier to monitor and administer than dozens of individual tariff-based caps. However, if the Commission is to monitor such a cap, it must also have knowledge of price reductions. I presume that Qwest intends to file a tariff or some form of notice on the effective date of a price reduction to enable the Commission to track the effect on the cap.

The Competitive Zone Proposal. Mr. Inouye proposes the use of competitive zones "with the basket approach" [Inouye at 12]. Specifically, Qwest proposes that services within competitive zones (as defined by Commission rule) be moved to Basket 3. While the use of competitive zones to move services to Basket 3 on a geographic basis would be far less troubling to me in the context of true price regulation than it is under the traditional rate-base rate of return regulation approach initially favored by Qwest in this proceeding, Qwest's price regulation plan, as presented, is really nothing more than a proposal to extend the "regulatory lag" for three more years after which time *it* can decide whether to go back to traditional rate-base rate of return regulation. Thus, my concerns about the use of competitive zones are still as stated in my Testimony [at 3-4]. While Mr. Inouye is correct that Oregon is using the competitive zone approach [Inouye at 13], it is currently doing so within the context of a price regulation plan. Moreover, the Oregon legislature

has mandated that the Oregon Public Utility Commission no longer use rate of return regulation once a company elects price regulation.[19]

Q. WHAT ARE YOUR VIEWS ABOUT THE COMPANY'S PROVISION FOR TREATMENT OF "EXOGENOUS FACTORS"?

A. The Qwest Plan appropriately makes provision for adjustments to the price cap formula due to exogenous factors. I am concerned, however, that the standard Qwest would have the Commission apply is far too broad [Inouye Exhibits at 3]. The basis for adjusting the price cap formula to reflect exogenous changes should be defined as narrowly as possible. An exogenous factor should be employed in the instance of changes beyond Qwest's control that have a measurable effect on Qwest's costs or revenues. Exogenous changes that are appropriate would include tax law changes, accounting regulation changes and regulatory changes that cause more than a *de minimis* change in Qwest's costs or revenues in Arizona.

8. SUMMARY AND CONCLUSION

Q. WILL YOU PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY?

Yes. I respond both to criticisms of the Staff Plan proposed in my Testimony and to the alternative plan proposed by Qwest as a substitute for the Staff Plan. With regard to the Staff Plan, Qwest asserts that it does not afford adequate pricing flexibility, particularly to enable rate rebalancing. As I have described, Qwest may rebalance by a variety of means, including adjusting rates of non-basic services.

[19] Oregon Revised Statutes, O.R.S. 759.410.

There is no compelling need to have wholesale and retail services in the same basket. Further, while Qwest alleges that the Staff Plan reduces existing pricing flexibility awarded to Qwest, it is the intent of the Staff Plan (as I have clarified) that any services or packages receiving flexibility today should continue to have flexibility. Contrary to Dr. Taylor and Mr. Inouye's objections, the inclusion of a service quality offset is not unreasonable, as other states have similarly included such an offset in their price cap plans. I do not agree with Qwest's positions of foregoing additional infrastructure commitments and rejecting the conditions related to litigation that I advanced in my Testimony.

I strongly disagree with Dr. Taylor's position that there is a "one size fits all" approach to establishing price regulation. State price regulation plans and their elements, including productivity offsets, have been arrived at through a variety of methods and are not always based on the formula that Dr. Taylor prefers. It is important, as the Commission moves away from rate-base rate of return regulation, to consider Qwest's own data related to its operations in Arizona. It is appropriate to use in this proceeding data subsequent to Qwest's last Arizona rate case since those data are less subject to significant rate level and structure changes. Additionally, the markets in which Qwest operates today— and will in the future— are markedly different than they were 10 years ago. In criticizing the Staff's productivity growth measure, Dr. Taylor rejects use of the very data and method favored by his client, Qwest. The Commission should disregard these criticisms.

While Qwest has indicated it willingness to consider a price regulation plan as an alternative to traditional rate-base rate of return regulation, the Qwest Plan is flawed. Qwest— rather than the Commission— retains the option to re-instate rate of return regulation after three years. As I have described, this would permit Qwest to seek rate increases to cover competitive losses. For this same reason, I still reject Qwest's competitive zone element of its plan. One element of Qwest's proposal deserves consideration. The proposed revenue cap on all services in Basket 3 may have advantages for both consumers and the Commission.

Of the two plans before the Commission, the Staff Plan is superior in terms of providing the company with pricing flexibility, allowing for some rate rebalancing, and providing greater consumer benefits.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

EXHIBIT
S-14
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

U S WEST COMMUNICATIONS, INC.

DOCKET NO. E-1051B-99-105

PREPARED TESTIMONY OF

STEVEN C. CARVER

MICHAEL L. BROSCH

STAFF ACCOUNTING SCHEDULES

On Behalf of the
Arizona Corporation Commission Staff

August, 2000

PREPARED TESTIMONY OF
STEVEN C. CARVER
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BEFORE THE
ARIZONA CORPORATION COMMISSION
PREPARED TESTIMONY OF
STEVEN C. CARVER

US WEST COMMUNICATIONS, INC.
DOCKET NO. T-1051B-99-105

Q. Please state your name and business address.

A. My name is Steven C. Carver. My business address is 740 North Blue Parkway, Suite 204, Lee's Summit, Missouri 64086.

Q. What is your present occupation?

A. I am a principal in the firm of Utilitech, Inc., which specializes in providing consulting services for clients who actively participate in the process surrounding the regulation of public utility companies. Our work includes the review of utility rate applications as well as the performance of special investigations and analyses related to utility operations and ratemaking issues.

Q. On whose behalf are you appearing in this proceeding?

A. Utilitech was retained by the Staff of the Arizona Corporation Commission (hereinafter "Staff" or "ACC Staff") to review the rate filing of US West Communications, Inc. ("USWC" or "Company") in Docket No. T-1051B-99-105 and to file testimony with this Commission respecting the results of our review. U S WEST and Qwest Communications ("Qwest") recently consummated a merger of the two companies. Although Qwest is the surviving corporation, the pending docket was filed and has, by and large, been processed prior to completion of the merger. For reference purposes, my testimony will continue to address the Company as USWC or U S WEST, rather than Qwest.

Q. Please summarize the purpose and content of your testimony in this Docket.

A. Generally, my responsibilities in this docket included the review and evaluation of various elements of operating income and rate base included within USWC's overall revenue

requirement recommendation. As a result, I sponsor and address in testimony various rate base and operating income adjustments proposed by the ACC Staff. The ratemaking adjustments which I do not sponsor are addressed by ACC Staff witness Michael L. Brosch. Other ACC Staff witnesses filing testimony in this proceeding include Mr. Stephen G. Hill, who provides recommendations concerning the appropriate capital structure and cost rates that should be employed for intrastate ratemaking purposes, and Mr. William Dunkel on the areas of rate design, capital recovery and fair value. The revenue requirement effect of the various Staff adjustments and recommendations are reflected in the ACC Staff Accounting Schedules, which I will introduce and jointly sponsor with Mr. Brosch.

Specifically, my testimony describes and sponsors, on behalf of the ACC Staff, various rate base and operating income adjustments. These adjustments include the elimination of certain test year incentive compensation costs, the annualization of depreciation expense, the elimination of image advertising and sponsorship costs, the imputation of additional revenues associated with FCC Deregulated products/ services, and the correction and/or reversal of certain adjustments recommended by the Company. Additional adjustments I sponsor include the elimination of the pension asset from rate base, the annualization of wage and salary expense, as well as the computation of the amount of interest expense deductible in quantifying income tax expense for ratemaking purposes using the interest synchronization methodology. The index at the beginning of my testimony and the first page of the ACC Staff Accounting Schedules identify each individual adjustment that I will discuss in testimony.

EDUCATION AND EXPERIENCE

Q. What is your educational background?

A. I graduated from State Fair Community College where I received an Associate of Arts Degree with an emphasis in Accounting. I also graduated from Central Missouri State University with a Bachelor of Science Degree in Business Administration, majoring in Accounting.

Q. Please summarize your professional experience in the field of utility regulation.

A. From 1977 to 1987, I was employed by the Missouri Public Service Commission in various professional auditing positions associated with the regulation of public utilities. In that capacity, I was responsible for the submission of expert testimony as a Staff witness. During the period 1977 through 1979, I participated in a Federal Energy Regulatory Commission compliance audit, reviewed utility certificate and financing applications, and participated in and supervised various accounting compliance and rate case audits (including earnings reviews) of electric, gas and telephone utility companies.

In October 1979, I was promoted to the position of Accounting Manager of the Kansas City Office of the Commission Staff and assumed supervisory responsibilities for a staff of ten regulatory auditors. I directed numerous rate case audits of large electric, gas and telephone utility companies operating in the State of Missouri and coordinated such activities with other Commission departments. My responsibilities also included the development and review of accounting issues, the preparation of Staff issues for hearings, and the provision of assistance to Staff counsel in drafting hearing memoranda, cross-examination questions and legal briefs.

In April 1983, I was promoted by the Commission to the position of Chief Accountant and assumed overall management and policy responsibilities for the Accounting Department. This department was comprised of approximately forty professional staff members specializing in

1 regulatory accounting and depreciation issues. I provided guidance and assistance in the
2 technical development of Staff issues in major rate cases and coordinated the general audit and
3 administrative activities of the Department. During 1986-1987, I was actively involved in a
4 docket established by the Missouri Public Service Commission to investigate the revenue
5 requirement impact of the Tax Reform Act of 1986 on Missouri utilities.

6 In 1986, I prepared the comments of the Missouri Public Service Commission respecting the
7 Proposed Amendment to FAS Statement No. 71 (relating to phase-in plans, plant
8 abandonments, plant cost disallowances, etc.) as well as the Proposed Statement of Financial
9 Accounting Standards for Accounting for Income Taxes. I actively participated in the
10 discussions of a subcommittee responsible for drafting the comments of the National
11 Association of Regulatory Utility Commissioners ("NARUC") on the Proposed Amendment
12 to FAS Statement No. 71 and subsequently appeared before the Financial Accounting
13 Standards Board with a Missouri Commissioner to present the positions of NARUC and the
14 Missouri Commission.

15 In July of 1983 and in addition to my duties as Chief Accountant, I was appointed Project
16 Manager of the Commission Staff's construction audits of two nuclear power plants owned by
17 electric utilities regulated by the Missouri Public Service Commission. As Project Manager,
18 I was involved in the staffing and coordination of the construction audits and in the
19 development and preparation of the Staff's audit findings for presentation to the Commission.
20 In this capacity, I coordinated and supervised a matrix organization of Staff accountants,
21 engineers, attorneys and consultants.

22 I commenced employment with the firm in June 1987. During my employment with Utilitech,
23 I have been associated with various regulatory projects on behalf of clients in the States of
24 Arizona, Florida, Hawaii, Illinois, Indiana, Mississippi, Missouri, New Mexico, Oklahoma,

Pennsylvania, Texas, Utah, Washington, West Virginia and Wyoming. I have conducted revenue requirement and special studies of various regulated utilities (i.e., electric, gas, telephone and water) and have filed testimony on behalf of: the Arizona Corporation Commission Staff; the Florida Public Counsel; the Hawaii Department of Commerce and Consumer Affairs Division of Consumer Advocacy; the Indiana Utility Consumer Counselor; the City of Jefferson of the State of Missouri; the Oklahoma Attorney General; the Oklahoma Corporation Commission Staff; the Pennsylvania Office of the Consumer Advocate; the Missouri Public Service Commission Staff; the New Mexico PRC Staff; the Office of Public Counsel of the State of Missouri; the Telecommunication Ratepayers Association for Cost-Based and Equitable Rates; the United States Executive Agencies; the Utah Committee of Consumer Services and the Public Counsel Section of the Washington Attorney General. Since joining the firm, I have continued to appear as an expert witness before the Missouri Public Service Commission on behalf of various clients, including the Commission Staff.

EXECUTIVE SUMMARY

Q. What overall revenue requirement has the ACC Staff proposed for USWC's intrastate regulated operations?

A. In its initial filing in this proceeding, USWC filed accounting and financial information supporting a revenue deficiency of about $225.9 million, using an original cost rate base and a June 30, 1998 historical test year. USWC's application only sought a rate increase of $70.9 million.

On May 3, 2000, the Company updated its revenue requirement filing to reflect a test year ended December 31, 1999. This test year "update" supported an overall revenue requirement of $201.2 million, as set forth on USWC Exhibit GAR-S1 (Redding Supplemental Exhibits), and a revised rate increase request of $88.6 million (Data Request No. 43-19S1). In comparison, the ACC Staff has assembled a revenue requirement recommendation supporting an overall rate increase of approximately $7.2 million. A series of accounting schedules supporting the Staff recommendations are located in the joint ACC Staff Accounting Schedules that have been separately bound.

Q. Please summarize the financial impact of the larger ratemaking adjustments proposed by the ACC Staff, contributing to this difference between the revenue requirement recommendations of USWC and the ACC Staff.

A. The more significant ratemaking adjustments comprising the difference between the Company and Staff recommendations are summarized in the following table. It should be noted that a detailed reconciliation of the various differences in revenue requirement is set forth on Schedule E of the ACC Staff Accounting Schedules.

Schedule Reference	Description	Estimated Revenue Requirement (Millions)
n/a	Return on Equity	($29.2)
B-3	Pension Asset	(5.9)
B-5	Proforma Depreciation – Reserve Reversal	9.0
C-1	Revenue Annualization – Local Service	(9.0)
C-5	Directory Imputation	(42.0)
C-8	Service Quality Program Elimination	(9.8)
C-10	EOP NonLabor Reversal	(9.8)
C-11	Year-End Wage & Salary Annualization	(13.9)
C-12	Incentive Compensation	(5.5)
C-13	SOP 98-1 (Internal-Use-Software)	(32.8)
C-14	USWC Payroll Adjustment Reversal	(13.3)
C-15	Proforma Depreciation Annualization	(3.0)
C-17	FCC Deregulated Service Imputation	(3.6)
C-18, B-7	FCC Dereg – Separations Adjustment	3.8
C-22	Depreciation on Unrecorded Retirements	(2.9)
C-27	Image Advertising / Olympic Sponsorship	(10.1)
C-29	Exchange Sale Allocation Adjustments	(11.4)
C-30	Reciprocal Compensation	11.6
	Total	($177.8)

Q. Could you please summarize how the ACC Staff Accounting Schedules are organized?

A. Yes. The components of the proposed revenue requirement appear on ACC Staff Schedule A. The Staff's proposed rate base is brought forward from ACC Staff Schedule B. Summary of

Jurisdictional Rate Base. Similarly, the Staff's adjusted net operating income recommendation is brought forward from ACC Staff Schedule C, Summary of Operating Income, while the cost of capital recommendation is obtained from ACC Staff Schedule D, Capital Structure Summary.

ACC Staff Schedule A-1 presents the calculation of the gross revenue conversion factor used to convert the net operating income deficiency (or excess) on ACC Staff Schedule A into the appropriate revenue requirement amount. The various adjustments to rate base and operating income are supported by individual supporting schedules and some supplemental workpapers. The witness sponsoring each schedule comprising the Staff's overall recommendation is identified in the upper left-hand corner thereof and is listed on the schedule index located at the front of the ACC Staff Accounting Schedules.

Q. How will you identify and refer to the individual Staff accounting adjustments?

A. Both rate base and operating income adjustments have been numbered sequentially, but separately, beginning with the number "one". In order to distinguish the first rate base adjustment from the first operating income adjustment, the adjustment number is preceded by a reference to the schedule on which the adjustment was posted. For example, the posting schedule for the rate base adjustments is ACC Staff Schedule B. So, the first rate base adjustment would then be referenced as ACC Staff Schedule (or Adjustment) B-1. Similarly, the first operating income adjustment would be identified as ACC Staff Schedule (or Adjustment) C-1, since ACC Staff Schedule C is the posting schedule for the income statement adjustments. For purposes of the Staff's testimony in this proceeding, Mr. Brosch and I will use the words "schedule" and "adjustment" interchangeably when referring to the individual adjustments proposed by the Staff.

Q. Please describe the Staff's approach to quantifying revenue requirement in this proceeding.

A. The Staff Accounting Schedules use the Company's "update" amounts (as filed in May 2000) for rate base, revenues and expenses as a starting point, which were then adjusted to reflect the impact of the various Staff proposed adjustments thereto. By starting with the Company's "update" filing, each test year ratemaking adjustment recommended by the Staff represents a reconciling difference, positive or negative, which can be used to quantify the value of the various issues between the Staff's recommendation and the Company's overall revenue requirement. In fact, ACC Staff Schedule E represents a reconciliation of the revenue requirement differences between the Company and the Staff by individual adjustment.

Q. Referring to ACC Staff Schedule A, could you please explain the format employed in quantifying the Staff's overall revenue requirement?

A. Yes. In developing its overall revenue requirement recommendation in this proceeding, the Staff has prepared a series of recommended adjustments to the Company's filed case which are designed to match the various components of the ratemaking equation and maintain the integrity of the December 31, 1999, end-of-period test year. In so doing, the Staff proposes that the effect of various changes (e.g., investment, prices and volumes) which typically occur subsequent to the selected test year should be excluded from the determination of overall revenue requirement, as presented on ACC Staff Schedule A.

Overall, the Staff disagrees with the Company's use of a global end-of-period annualization approach and the piecemeal recognition of changes occurring beyond December 31, 1999. Instead, the Staff recommends that the Commission normalize test year operating results, adopt annualization adjustments for specific identifiable components of revenues and expenses, and annualize book depreciation expense on year-end depreciable plant in order to appropriately recognize ongoing costs and revenues. The rationale underlying the Staff's proposed test year approach will be addressed in the Test Year section of my testimony.

Q. On behalf of the Staff, has Utilitech thoroughly reviewed the various revenue requirement adjustments proposed by USWC such that the inclusion of an adjustment without modification should signify Staff's agreement with, or acquiescence to, the appropriateness of any such items for ratemaking purposes?

A. No. As consultants to the ACC Staff, we did review and submit discovery, as necessary, on all of the Company's various adjustments (and workpapers) in varying degrees. Although we have proposed numerous adjustments to the Company's filing, we have not necessarily proposed an adjustment for each and every item identified due to materiality and/or work prioritizations. Consequently, the inclusion of a Company adjustment without modification should <u>not</u> be construed as agreement with or endorsement of that particular adjustment amount or adoption of the underlying methodology or theory.

TEST YEAR

Q. What test year was employed in this Docket?

A. When USWC originally submitted its rate filing in this proceeding, the Company's revenue requirement was based on a test year ending June 30, 1998. During the procedural conference on April 4, 2000, the Chief Hearing Officer ordered U S WEST to update its test year through calendar year 1999. [Prehearing Conference, tr.16.] As a result, USWC's revenue requirement "update" is based on a historical test year which starts with the Company's results of operations for the twelve month period ended December 31, 1999.

Q. Has the ACC Staff employed the same test year update as that filed by the Company?

A. Yes. The Staff's proposed revenue requirement employs the Company's proforma amounts for rate base, revenues and expenses from the 1999 test year update as a starting point. These components of the ratemaking formula were then adjusted to reflect the impact of the Staff's proposed adjustments thereto.

Q. Has USWC proposed a year-end or average approach to test year valuation?

A. In general terms, USWC has proposed use of end-of-period investment, volumes (access lines, employee headcounts, etc.) and prices (wage and salary rates, revenue prices, etc.) in quantifying overall revenue requirement. However, for certain elements of revenue requirement (wage/ salary rates, reciprocal compensation, exchange sale, broadband asset transfer and depreciation accrual rates), the Company has quantified ratemaking adjustments which have the effect of recognizing post-test year levels or events. More expansively, USWC has proposed to annualize virtually all revenue and expense accounts using a "December 1999 times 12" ("Dec*12") or a year-end trending methodology.

Although Company witness George Redding dedicated several pages of both his direct testimony and supplemental direct testimony to a discussion of the test year, USWC's filing is internally inconsistent and serves to misstate various elements of the ratemaking equation. At pages 12-13 of his direct testimony, Mr. Redding discusses the concept of using an end-of-period rate base in Arizona and the need to consistently adjust the income statement to test year-end. Beginning at line 1 of page 13, Mr. Redding states:

> Given the requirement for an end of period rate base, it is logical to also state the income statement at the same level. However, I do have a problem with picking and choosing. This can lead to a great deal of mischief and cause the test year to be misleading. For example, if revenue volumes and employee levels were both rising over the course of the year, an adjustment that took only the revenues to end of period levels would obviously mistate [sic] the test year and provide a poor proxy for the period when new rates will be in effect. [Redding Direct, p.13]

While I generally agree with Mr. Redding's concerns about consistency, the Company's EOP annualization does not necessarily achieve reasonable results.

The revenue and expense levels actually incurred by the Company represent the product of prices and quantities, or "P*Q". When employing an end-of-period (EOP) test year approach, I agree with Mr. Redding that the ratemaking process should recognize the effects of known changes in test year prices or quantities, or both, to the extent that such changes can be clearly identified, verified and quantified, all else remaining equal. However, I disagree that a blanket annualization methodology that relies on multiplying a single month of revenues/ expenses times twelve necessarily achieves the desired and intended matching. Moreover, USWC's EOP annualization approach has the effect of setting rates based on what effectively becomes a one-month test year.

Q. Why is that?

A. Let me explain by using a simplified example. Assume that the Company buys 12 "widgets" over the course of the calendar year for a price of $1 each. If the Company has consistently bought and expects to continue to buy 12 widgets and the price is not expected to vary from $1 per unit, then it would be reasonable for the test year to reflect $12 of widgets expense. The proposed "Dec*12" annualization methodology will only yield the $12 expected level of widgets expense if, and only if, the Company had either recorded widget expense of $1 in December or quantified a manual adjustment to December's recorded expenses in order to include the $1 therein.

For example, if the Company bought all twelve widgets in December, this methodology would result in annual widgets expense of $144 (i.e., 12 widgets times $1 times 12 months), absent normalizing adjustments to remove the cost of the excess widgets. At the opposite extreme, this methodology could result in "zero" widgets expense if the Company happened to purchase no widgets in December (i.e., 0 widgets times $1 times 12) and failed to identify the need to manually add $1 to December expense.

Although this example focuses on the quantity component of the "P*Q" equation, unit prices can and do change over time. Factors such as seasonality, heightened competition, oversupply, consolidation of purchasing power, changes in source of supply and inflation can all impact the price paid for each individual widget, which is magnified by the quantity purchased. These factors are likely to produce non-representative amounts in any single month, but tend to smooth out across a full twelve-month test year.

Q. Is "December 1999 times 12" the only component of the Company's annualization?

A. No. The Company did employ a trending technique in an attempt to evaluate the extent to which the amount recorded in December was representative. As I understand the Company's

methodology, if the revenue or expense recorded in December 1999 appeared to be "in-trend" with comparable per book data in the months of October-November 1999 and January-February 2000, the Company concluded that "December 1999 times 12" would yield reasonable results. However, if December was "out-of-trend", the Company would either attempt to identify specific normalization adjustments to increase or decrease the December recorded revenues/ expenses or adjust December to fit the trend, using a five-month averaging methodology. In any event, USWC attempted to use the trending approach to identify and eliminate out-of-trend conditions from influencing the annualization process.

Unfortunately, the focus of both the "December 1999 times 12" method and the trending approach divert attention away from the reasonableness of unit prices and related quantities. Instead, an implied assumption underlying the Company's approach is that some revenues/ expenses will be overstated, but offset by understatements in other areas. In my opinion, this does not represent a sound annualization approach for use in the ratemaking process.

Q. Could you identify the USWC adjustment that annualizes test year revenues and expenses in this manner?

A. Yes. USWC Adjustment P-01, End of Period Annualization, primarily uses this annualization approach. Referring to the Company's update filing, Supplemental Exhibit GAR-S7 increases operating revenues by $3.9 million and increases operating expenses by $28.3 million. While Mr. Brosch and I will individually discuss the various components of this Company adjustment, USWC has increased its overall revenue requirement by about $24.4 million using this approach.

Q. Has the Staff proposed adjustments to move prices and quantities to year-end levels, consistent with the use of an EOP rate base?

A. Yes. While the Staff has endeavored to apply a relatively stringent test year approach in order to consistently value the various components of the ratemaking equation, there are unique circumstances currently affecting the Company's operations which deserve and demand recognition in the quantification of overall revenue requirement. As the Commission is aware, the Company has negotiated, but not yet closed, an agreement to sell certain rural Arizona exchanges. Also, the pending rate proceeding is the result of a lengthy docket before this Commission concerning various revisions to USWC's Arizona depreciation rates, which was not concluded until after the 1999 test year. Further, the Company initiated a separate proceeding to transfer certain broadband assets to a non-regulated affiliate. Although the procedural schedule in the latter proceeding has been delayed, each of these matters uniquely affect the Company's operating results in the State of Arizona.

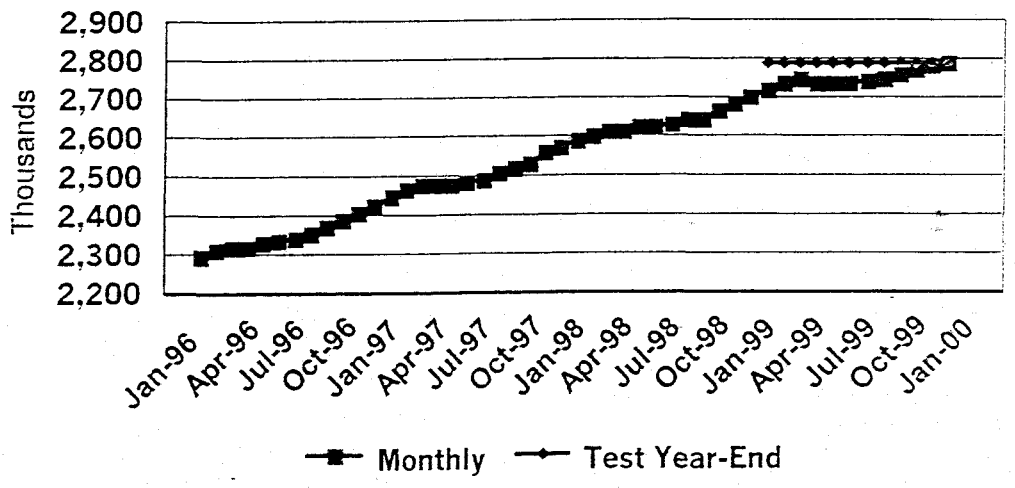
Beyond adjustments for the exchange sale, depreciation accrual rates and broadband transfer, the Staff has proposed specific adjustments to annualize discrete, identifiable components of revenues and expenses to test year-end. Although the Company may attempt to characterize this approach as "picking and choosing" or leading "to a great deal of mischief," it is important to recognize that some revenues and expenses are reasonably stated at actual recorded levels, in the absence of detailed information demonstrating otherwise. The presentation of global revenue or expense annualization adjustments, for the mere sake of being able to state that every dollar has been annualized, is not necessarily a good thing. Said differently, it is not reasonable to shift to USWC's single-month test period to reasonably quantify the Arizona revenue requirement.

Staff has endeavored to process this update filing on an expedited basis, focusing and prioritizing its efforts on elements of the ratemaking formula that merit attention. As a consequence, the Staff has presented what it believes is a reasonable quantification of USWC's

overall intrastate revenue requirement, using a reasonable year-end valuation approach for all elements where known and measurable changes require annualization.

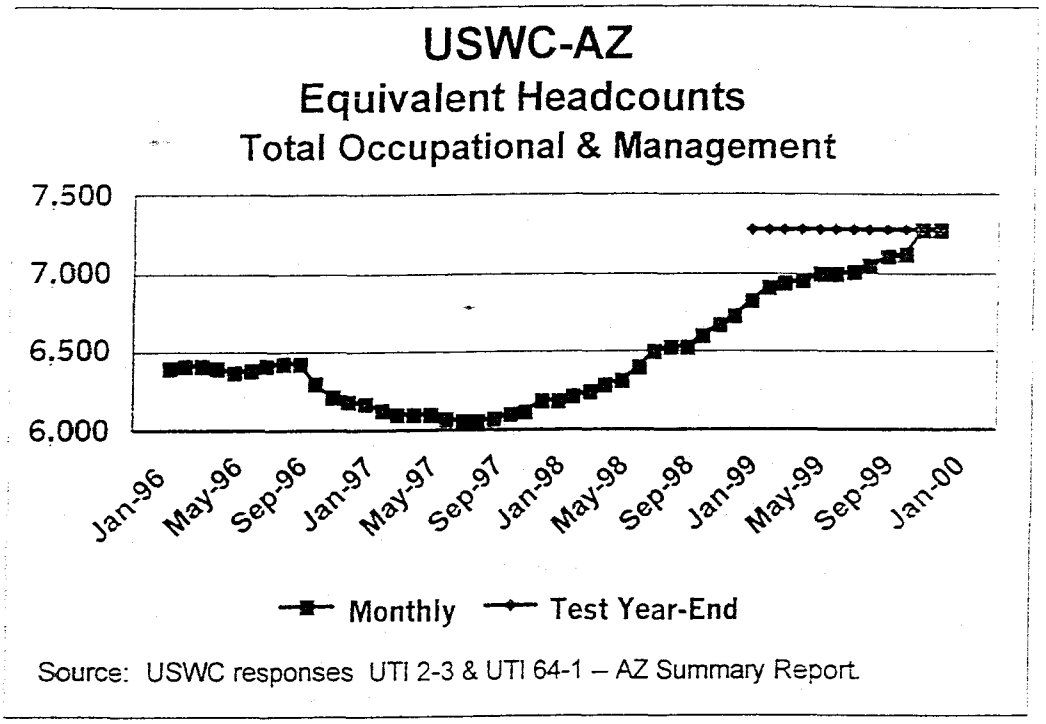
Q. Have you attempted to examine the historical trend in USWC's net rate base, expenses and volumetric statistics in Arizona?

A. Yes. I have reviewed overall data concerning USWC's Arizona trends in investment, operating expenses, access lines and changes in equivalent employee headcounts. As shown by the following graph, access lines, which serve as a general indicator of recurring revenue levels, have grown consistently since 1986 – a trend which continued throughout 1999 into 2000.



Source: USWC responses UTI 2-3 & UTI 64-1 – AZ Summary Report.

Equivalent employee levels fluctuate from month to month, but have increased significantly since late 1997.



In order to minimize the volume of confidential data contained within my testimony, these graphs only present the non-confidential data supplied in response to the referenced discovery requests (i.e., data through December 1999). Subsequent to the test year, access lines and employee headcounts have continued to increase.

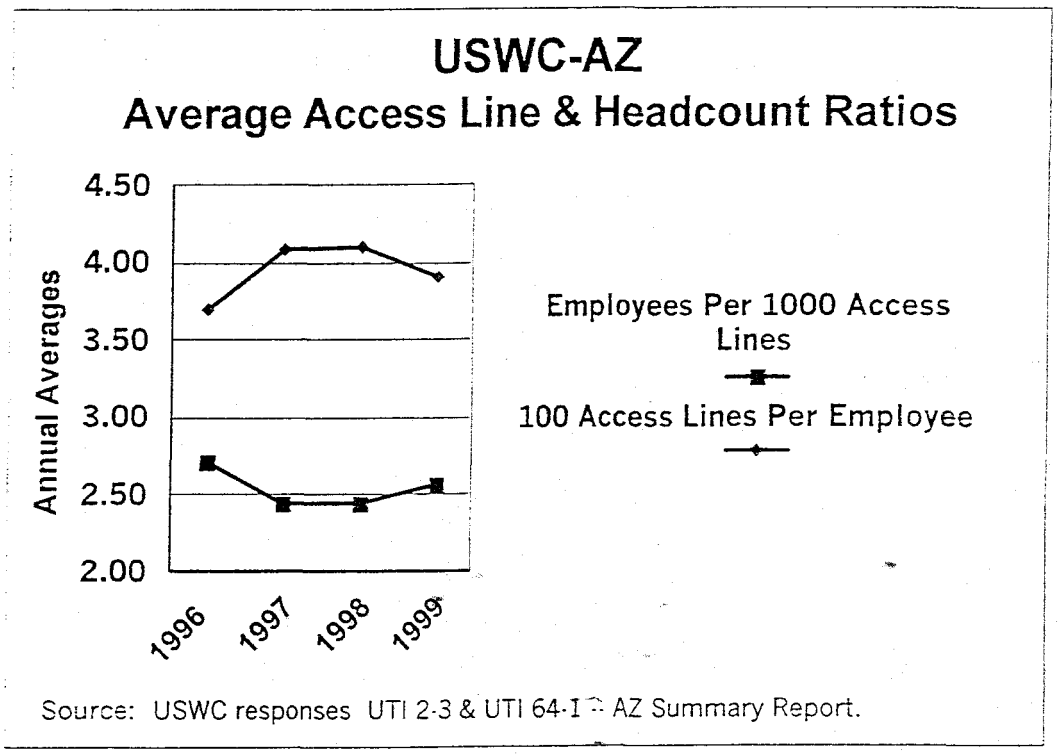
Staff has proposed annualization adjustments, as appropriate, to reflect revenue changes and the significant growth in access lines that occurred during the test year. The direct testimony of ACC Staff witness Brosch will address USWC's operating revenues and introduce certain ratemaking adjustments proposed by the Staff.

With regard to employee headcounts, I will sponsor an adjustment to annualized wage and salary expense at test year-end, in order to recognize the increased employee headcounts and wage/ salary rates experienced through the end of 1999. Although USWC has also proposed

an adjustment to annualize wage and salary increases that occur subsequent to the test year, I will recommend the exclusion of the post-test year increases.

Q. How does the growth in access lines compare to the growth in employee levels?

A. Although employee levels have increased since late 1997, the growth in access lines appears to have largely offset that increase during this time frame. The following graph presents two related statistics which indicate relative employee efficiency in relation to access lines.

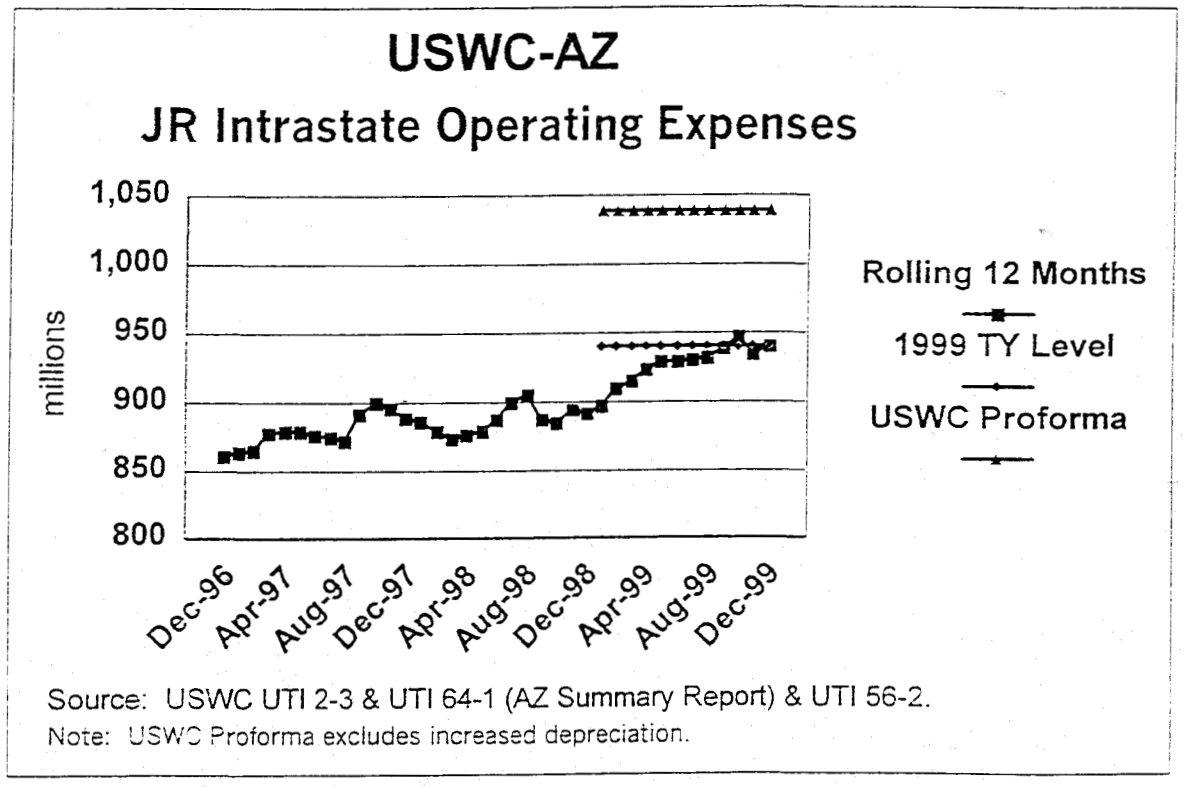


As shown by this graph of the non-confidential data supplied by the Company, the rate of growth in access lines since 1997 has largely offset the increase in employee levels, thereby resulting in the relatively constant ratios during the more recent periods. Based on the statistical information I have reviewed and test year matching concepts, I believe that the annualization approach proposed by Staff better synchronizes revenues and labor expense at year-end levels and avoids the need to engage in the detailed identification and analysis of the

post-test year known and measurable growth in revenues, access lines and other offsetting changes.

Q. Have you also compared the Company's overall Arizona intrastate expense levels?

A. Yes. I have reviewed the overall trend in USWC's intrastate operating expense levels (excluding FCC Deregulated Services) prior to and continuing beyond the test year. Absent further detailed discovery and evaluation of the Company's accounting records for the year 2000, the Staff is unable to assess or comment on the factors that may contribute to changes in post-test year expense levels. In any event, the following graph compares the level of intrastate operating expense "as recorded" during the test year (i.e., the twelve months ended December 1999) with rolling twelve months of actual intrastate expense starting with December 1996. For example, the data point labeled "Dec-99" reflects the actual intrastate operating expense for the twelve month period ending in December 1999.



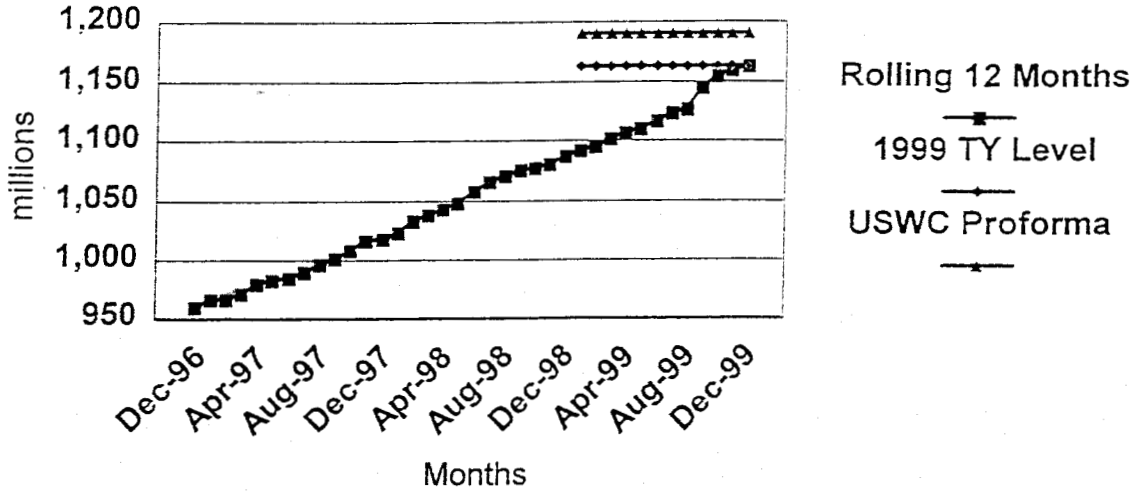
Source: USWC UTI 2-3 & UTI 64-1 (AZ Summary Report) & UTI 56-2.
Note: USWC Proforma excludes increased depreciation.

While recorded expense levels are influenced by changes in both prices and quantities as well as a variety of correcting and out-of-period journal entries, this graph does show an increasing historical trend in operating expense. For comparison purposes, the graph also reflects the test year unadjusted as well as the Company's proforma level of operating expense (excluding the effect of the change in depreciation accrual rates).

In order to minimize the presentation of confidential information, this graph does not reflect any data beyond 1999. While the Staff has not analyzed and audited the price and quantity drivers influencing the expenses recorded in the post-test year months of January-April 2000, it is notable that even dramatic post-test year increases in intrastate operating expenses, as presented in the underlying documentation, do not reach the extraordinarily high proforma level included in USWC's proposed revenue requirement.

Q. Have you prepared a similar graph of operating revenues?

A. Yes. The following graph represents a similar comparison of intrastate operating revenues over the same time frame, excluding any confidential post-test year information.

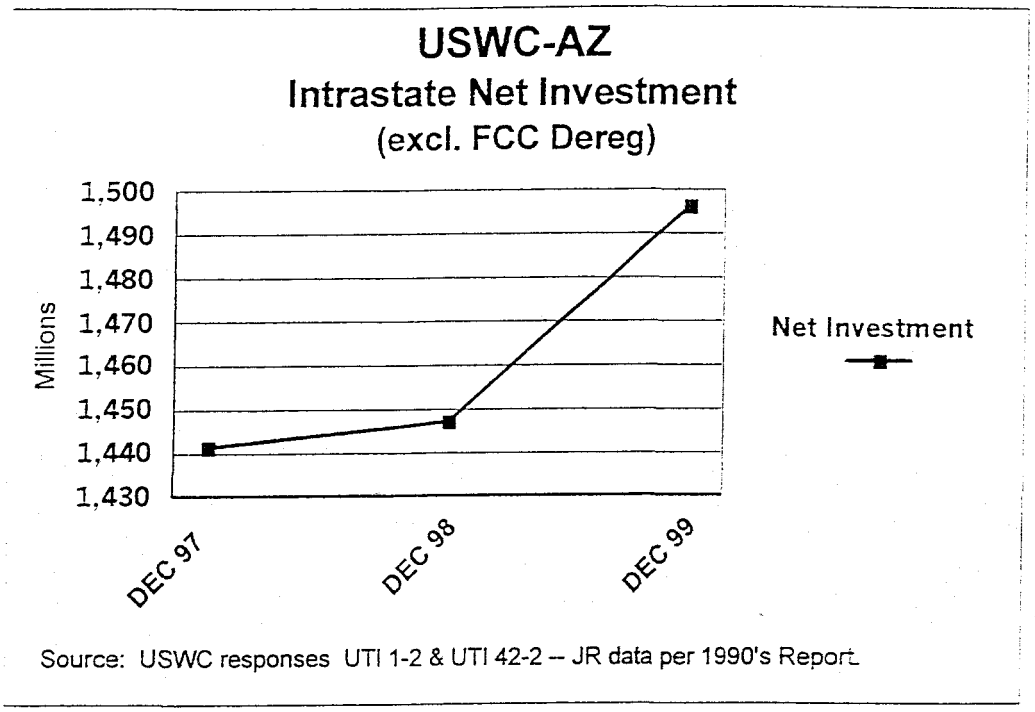


Source: USWC UTI 2-3 & UTI 64-1 (AZ Summary Report) & UTI 56-2.
Note: USWC proforma is "as filed" by Company.

Clearly, revenues are increasing at a steady rate and may be less susceptible to misstatement through the annualization process. However, as Mr. Brosch explains in his testimony, the revenue effects of the new broadband affiliate, reciprocal compensation, and the nature of each type of revenue must be analyzed and understood in developing appropriate ratemaking adjustments.

Q. Earlier, you also mentioned that you had also reviewed data concerning USWC's investment in Arizona. Is that correct?

A. Yes. Because three primary elements (plant in service, accumulated depreciation/ amortization reserves and deferred income tax reserves) drive the Company's rate base, the follow graph compares historical intrastate "net investment" balances (excluding FCC Deregulated Services) at December1997, December 1998, and December 1999.



USWC's net investment in these rate base components has increased over the past several years. Subsequent to the test year, the net intrastate investment has continued to increase, but has not been analyzed to determine whether the increase would be appropriate for regulatory recognition.

Q. With these graphs showing increased revenues, expenses and investment, is it reasonable to assume that these changes will automatically put upward pressure on the rates charged for telecommunications service?

A. No. It is generally anticipated that the passage of time will result in increasing costs and investments, during periods of even modest inflation. As a result, the use of an end of period rate base and year-end revenue/ expense annualization adjustments might be expected to yield higher revenue requirements. However, after considering recent trends in access lines, headcounts, revenues, expenses and net investment, the data indicates that all components of the ratemaking equation are changing over time. It is only by conducting a detailed analysis

and investigation into the underlying data that a determination can be made as to whether the overall revenue requirement has changed materially during the selected test year, thereby justifying an increase in the Company's tariff rates and charges. The key issue is whether revenues are growing faster or slower than overall costs, including investment return, necessary to support those revenues. As an indication of the existence of this offsetting phenomenon, it is observed that the Company's last rate case was processed about six years ago.

Q. Why is the proper selection and balanced adjustment of a test year important in the determination of just and reasonable public utility rates?

A. The ratemaking equation commonly employed by this Commission, and other regulatory agencies, compares a required return on rate base to the investment return generated by adjusted test year operating results. If the return generated by the adjusted operating results (i.e., adjusted operating income and rate base) is deficient, a rate increase is required to provide the utility an opportunity to earn a "reasonable" return on its investment. Conversely, an excessive return would support a reduction in utility rates.

For the ratemaking equation to function properly, the components comprising the equation (i.e., rate base, revenues, expenses and rate of return) must be reasonably representative of ongoing levels, internally consistent and comparable – within the context of test period parameters. To the extent that these components are not properly synchronized, a utility may not have the opportunity to earn its authorized return or, alternatively, may have the opportunity to earn in excess of the return authorized. By synchronizing or maintaining the comparability of revenues, expenses and investment, the integrity of the test year can be maintained with the reasonable expectation that the resulting rates will not significantly misstate the cost of providing utility service. It is critical that the ratemaking process properly synchronize only those known and measurable changes which occur during the test year or within a reasonable defined period subsequent thereto, rather than establish utility rates on

inappropriate factors or inconsistent post-test year events. In this manner, regulators can best be assured that rates are reasonably based on ongoing cost levels.

Over time, each of these elements comprising the revenue requirement formula will and do change – as clearly demonstrated by the earlier charts depicting historical trends in rate base, access lines, employee counts, operating revenues, and operating expenses. There is no question that operating expenses and net investment have increased, but so have operating revenues. Changes in one component of the "formula" that tends to increase revenue requirement could well be offset by decreasing changes elsewhere. For this reason, one of the purposes of a rate proceeding it to analyze and balance these various elements of the revenue requirement formula.

Q. Do you have any direct evidence that increases in one area might be offset by decreases in another?

A. Yes. The Commission need look no further than the two separate test year revenue requirement filings that the Company has submitted in this proceeding. While these two test years were 18 months apart, the Company's overall revenue requirement approach did not change materially. Although the Staff does not concur with the Company's valuation of certain adjustments and overall EOP approach to the test year, the fact remains that a relatively consistent application of USWC's ratemaking theories resulted in a fairly limited change between these two revenue deficiencies filed by the Company. The following table compares the major elements of the revenue requirement formula reflected in these two Company filings:

Element	June 1998	December 1999
Net Rate Base	$1,474,717,000	$1,442,099,000
Total Operating Revenues	$1,110,724,000	$1,190,269,000
Total Operating Expenses	$1,020,578,000	$1,147,198,000
Weighted Cost of Capital	10.74%	10.86%
Revenue Deficiency - Original Cost	$225,878,000	$201,220,000

Sources: Redding GAR-1 & GAR-5 (Direct Exhibits), GAR-S1 (Supplement Exhibits), Data Request No. UTI 56-2

During the intervening 18 month period, the Company's valuation of rate base has declined while revenues, expenses and proposed return have all increased. Despite the dynamics underlying these changes (included the exchange sale), the Company's overall revenue deficiency decreased by almost $25 million. Clearly, there are differences between these test periods. The Staff would likely have proposed any number of ratemaking adjustments to either test year. However, the fact remains that all components of the "formula" have changed, but overall revenue requirement has remained relatively constant.

Q. Do you have any further comments concerning the Company's overall annualization approach in this proceeding?

A. Yes. There are significant differences between the presentations of USWC and the ACC Staff concerning how the test period should be adjusted for ratemaking purposes, as indicated in the Executive Summary section of my testimony. One area of disagreement concerns USWC's concept of annualizing all expenses to EOP levels using the "December times 12" methodology. The following confidential graphs compare historic levels of recorded product and non-product advertising expense with the results from the Company's annualization approach to illustrate the problems inherent with USWC's single-month test year.

1 **CONFIDENTIAL GRAPHS**

Although a subsequent testimony section will address the Staff's proposed disallowance of image advertising costs, these graphs show that the "December times 12" approach results in excessive increases to the historical levels of advertising expense without any evidence or rationale justifying the magnitude of such increases. While advertising expense has been used as an example of Staff's concern with the Company's EOP annualization approach, Mr. Brosch and I will introduce a variety of adjustments which serve to annualize discrete revenue and expense components that merit annualization.

I am fairly confident that the Company will attempt to explain away these significant deviations between historical and annualized advertising expense levels by arguing that its annualization methodology was not designed to focus on this degree of detail, but would have likely identified and eliminated by default any material variations in discrete expense items by "trending" overall expense levels. If such a position is offered, the acceptance of the Company's EOP expense annualization methodology would require adoption of the premise that gross overstatements of some categories of expense are acceptable as long as the Company's method just as materially understates other categories of expense.

In my opinion, the Company's proposal to annualize aggregate expense levels without a detailed evaluation and identification of the specific factors driving changes in incurred costs (i.e., price and quantity changes) is misguided, ineffective and potentially leads to a false sense that USWC's global annualization approach, which couples the "December times 12" with other trending techniques, yields reasonable and consistent results.

Q. Could you briefly identify the areas to which USWC has applied the "December times 12" method?

A. Yes. USWC Adjustment P-01 proposes to annualize the following areas using the "December times 12" method:

- Operating Revenues
- Deregulated Revenues
- Wage & Salary Expense
- Benefits Expense
- Non-Labor Expense
- Property Tax Expense
- Rent Compensation
- Uncollectibles

The Staff has reviewed each of these components of USWC's EOP annualization adjustment and, for most components, offers separate annualization adjustments. With regard to the non-labor EOP annualization, the Staff's reversal of the Company's adjustment will be discussed in a separate section of my testimony.

EOP NONLABOR REVERSAL

Q. Please identify ACC Staff Adjustment C-10.

A. ACC Staff Adjustment C-10 reverses the Company's proposal to annualize miscellaneous non-labor operating expenses using the "December times 12" method. This non-labor annualization in one of several components to USWC's Adjustment P-01.

Q. Why do you believe that this Company adjustment should be reversed?

A. In the test year section of my testimony, I generally discuss the test year concept and the annualization process, including the Company's non-labor annualization adjustment. In many revenue and expense areas, it is possible to analyze data trends, contract or price changes, and/or other underlying statistics so as to identify specific items that merit annualization or normalization adjustments. Mr. Brosch and I have proposed a number of adjustments annualizing various cost of service items, including operating revenues (by category), wage and salary expense, benefits expense, uncollectible expense, depreciation expense, rent compensation and property tax expense.

However, the non-labor expense category is comprised of millions of transactions across a broad assortment of different types of expense. These transactions may reflect costs that are directly incurred by, or allocated to, the Company's Arizona operations and would encompass extremely diverse transactions, including:

- Affiliate transactions
- Operating rental expense (i.e., outside the rent compensation study parameters)
- Non-capitalized software costs
- Janitorial services
- Power expenses
- Outside consulting (auditors and actuaries), legal and security services
- Business travel costs (meals, lodging, etc.)
- Postage (customer bills and notices)

- Facility maintenance (materials and supplies)
- Property and casualty insurance
- Damage claim payments
- Industry association dues and membership fees
- Magazine and periodical subscriptions
- Stockholder services costs
- Advertising costs
- Vehicle leases and operating costs
- Consumable and office supplies

The Company has proposed to increase the test year level of non-labor intrastate expense by almost $11 million; but has not identified any specific changes in the Company's operations or a need to purchase more (or less) of a specific good (or service) at a specific higher (or lower) price in support of this adjustment. The Company did not file or present any analyses or studies that substantiate this method as a viable approach. Instead, the Company has posted a few normalizing adjustments to the non-labor expenses recorded in December 1999, prepared trending comparisons with unadjusted monthly expenses (i.e, late 1999 and early 2000), and multiplied the residual times twelve.

Q. Is there any approach to annualize non-labor expenses that you would have found more acceptable?

A. Yes. If the Company had determined, for example, that the cost of its casualty insurance had increased during the test year, the Staff would have been willing to review the details underlying the Company's workpaper calculations and evaluate the revenue requirement effect thereof. If the Company had annualized the cost of mailing customer bills or other correspondence and concluded that postage costs were increasing because of the greater number of mailings, Staff would have also been willing to review and evaluate those quantification details. Unfortunately, this was <u>not</u> the Company's approach to the annualization of non-labor expense.

Q. Earlier, you presented several graphs regarding advertising expense, including the level of advertising costs included in the Company's EOP non-labor adjustment. Did the Company's adjustment workpapers contain similar information for other specific components of non-labor expense?

A. The Company prepared its non-labor annualization at a high level. So, the Company's non-labor annualization workpapers did not produce data at the detail level necessary to evaluate the reasonableness of a particular cost element. With regard to advertising expense and several other types of cost, the Company did provide a quantification of the annualized "December times 12" amount in response to specific discovery requests. In response to other similar requests, the Company simply stated that its annualization was not prepared in the level of detail requested.

For the reasons noted above, the Staff recommends that the Commission disallow the Company's EOP non-labor annualization adjustment.

YEAR-END WAGE & SALARY ANNUALIZATION

Q. Please describe ACC Staff Adjustment C-11.

A. ACC Staff Adjustment C-11 is necessary to reflect an ongoing level of salaries/ wages in USWC's cost of service and to consistently recognize, or match, employee counts with salary levels/ wage rates actually in effect in late 1999.

Q. Did the Company also propose an adjustment to annualize salaries and wages to test year-end levels?

A. Yes. The Company did quantify a year end annualizaton adjustment using the EOP "December times 12" methodology discussed previously. In my opinion, the simplicity of this approach masks several significant methodology deficiencies and yields unreasonable results. First, the Company's annualization technique does not separately examine the individual components of employee compensation (basic wages, overtime & premium pay, incentive compensation, etc.) and determine an appropriate method to annualize each component. Instead, the Company annualizes all compensation components by multiplying the December 1999 expense amount by 12.

Second, it appears that the Company has only made a limited attempt to evaluate whether the wage and salary expense recorded during December 1999 represents a reasonable relationship with employee levels and workdays to form an appropriate basis for annualization purposes. In my opinion, this has resulted in an overstatement of the annualization adjustment recommended by USWC.

Q. Did USWC adjust the wage and salary expenses recorded in December 1999 prior to the annualization?

A. Yes. USWC did recognize several adjustments in an attempt to normalize the December 1999 wage and salary expense: incentive compensation accruals were adjusted to reflect average test year levels or eliminate out-of-period transactions; clearance journal entries recorded during December were transferred from benefits to salaries expense; and the relationship between paid time off and base wages/ salaries was adjusted to the average amount recorded during September-December 1999.

Q. How do the results of the Company's payroll annualization methodology compare to test year wage and salary levels?

A. The following table compares the salary and wage expense incurred in 1998 and 1999 with the results from the Company's EOP annualization methodology:

	Total Arizona	
	Payroll Expense	Increase
1998	[redacted]	[redacted]
1999	[redacted]	[redacted]
USWC Annualization	[redacted]	[redacted]

Sources: USWC confidential UTI 18-25, UTI 42-5 & UTI 63-5.

Referring to the above table, the Company's annualization adjustment has the effect of recognizing a larger increase in wages and salaries from the test year "recorded" level to the December 1999 EOP level than the entire increase between calendar years 1998 and 1999. In other words, the annualization process is intended to restate test year expense from the average wage/ salary rates and headcounts experienced during the test year to year-end levels. So, a significant portion of these changes (pay rates and headcounts) are already partially included within the test year and tend to lessen the required annualization adjustment. However,

calendar year 1998 does not incorporate any of the changes experienced in calendar year 1999 (i.e., in either rate or headcount changes), so the expectation is that the year-over-year change would be greater than the results from the test year annualization process – absent significant structural changes in the Company's operations.

Q. How does the annualized level of payroll expense proposed by the Staff compare to these levels?

A. Referring to ACC Staff Adjustment C-11, the Staff has proposed an annualized level of payroll expense of about $370.3 million (Total State).

Q. How did you annualize wage and salary expense?

A. After reviewing monthly headcount, workday and payroll data supplied by the Company, I concluded that the annualization of payroll costs should be accomplished in several steps. The annualization of regular, or basic, compensation should recognize year-end 1999 employee levels, wage/ salary rates and a reasonable level of annual workdays. Overtime and premium pay were separately adjusted to capture the effect of the wage and salary increases granted during the test year. The Staff's annualization did not modify the test year level of incentive compensation pay, since the recovery of such costs will be addressed in a separate testimony section. Termination pay and clearances were also not adjusted from test year levels.

Q. Could you explain how you annualized regular, or basic, compensation?

A. For purposes of this proceeding, the annualization of regular compensation for both occupational and management employees, as presented on ACC Staff Adjustment C-11, was based on average basic pay per equivalent employee for the three months of October through December 1999. The resulting three month average pay per employee was multiplied by the December 1999 level of equivalent employees and then by an annualization factor of twelve (12). This methodology consistently recognizes the effect of wage and salary increases

implemented during the test year as well as the interrelationships between changing headcounts and employee compensation levels.

Q. Why did you use the three month average times twelve methodology for regular pay but not for overtime or bonus pay?

A. Regular payroll costs are a direct function of the number of employees, the wage and salary rates in effect and the number of hours or days worked. The level of USWC's Arizona employees increased during the test year, which generally tends to increase payroll costs. The test year wage and salary increases also have the effect of increasing payroll costs. It is my opinion that the use of two or three months of basic pay data for an entity such as USWC tends to help levelize and normalize these items as well as other recorded journal entry transactions that could otherwise improperly impact the annualization process.

Certain forms of compensation such as overtime, incentive compensation and bonus awards are linked to other factors, or cost drivers, which could be seasonal in nature or may fluctuate significantly from month to month. As a result, the process of annualizing such items for inclusion in cost of service should not necessarily focus on a similar EOP annualization approach, because of the possibility that one or two months of data may not be representative of ongoing conditions or annual levels.

Q. How have USWC's employee levels changed during the test year?

A. In the confidential response to Data Request No. UTI 63-2, the Company provided historical information concerning the USWC employees physically located in the State of Arizona (i.e., "situs" employees) as well as "equivalent" employees providing service to USWC's Arizona customers.

1 **CONFIDENTIAL GRAPH**

Although the monthly "situs" headcounts show a fairly steady build-up throughout 1999, the
3 "equivalent" headcounts show more month-to-month fluctuation. It should be noted that the
4 annualization adjustments offered by both the Company and the Staff effectively rely on year-
5 end headcount levels.

6 Q. Could you briefly explain the difference between headcounts that are referred to as "situs"
7 employees and "equivalent" employees?
8 A. Yes. USWC's workforce is located throughout a fourteen state region. Due to the nature of
9 the work an individual employee might perform, the payroll and benefit costs of that employee
10 could be assigned directly to the Company's operations in the State in which the employee is
11 located or could be allocated between multiple State operations. Headcounts based on the
12 geographic location (e.g., Arizona) of the employee are referred to as "situs" employees. If
13 100% of a particular employee's time was attributable to work for the State in which he/she
14 was physically located, this employee would be counted as one "situs" employee as well as one
"equivalent" employee.

The difference between "situs" and "equivalent" employees comes into play when the payroll and benefit costs of certain employees are allocated or assigned to more than one State's operations. Since payroll costs are typically allocated between multiple States, employee levels that are allocated on the same or similar basis as employee payroll costs are considered to be "equivalent" employees. So, an employee located in one State and partially allocated to another State would be viewed as one "situs" employee, but less than one equivalent employee in the State of assignment.

Q. Is one of these methods of measuring employee levels preferred over the other?

A. Yes, depending on the intended use or application of the employee level data. For purposes of comparing total headcounts or preparing trend analyses, "situs" basis employee levels may be readily available and acceptable, in the absence of other data. When preparing payroll annualizations that partially rely on headcounts, "equivalent" employee levels are generally considered to be superior to "situs" information because of its consistency with recorded payroll expense, which includes a combination of directly assigned and partially allocated costs.

Q. Was ACC Staff Adjustment C-11 based on "situs" or "equivalent" employees?

A. This Staff adjustment was calculated using "equivalent" headcount data.

Q. You previously made reference to employee workdays in the context of the annualization of regular pay. Please explain that reference.

A. Employees are generally paid on an hourly wage rate or monthly salary basis. The number of employee days worked (or workdays) during a particular month provides a general means of comparing the relative time worked by employees on a month to month basis. USWC's response to Data Request No. 63-3 indicated that there were 22 workdays in the month of

December 1999. So, using USWC's "December times 12" methodology, the Company's annualization appears to be based on 264 workdays (22 workdays * 12).

In comparison, the Staff's regular pay annualization was based on the average basic pay per employee for the three months of October through December 1999. The average number of workdays during this period was 21.33 days (i.e., a simple average of 21 + 21 + 22 workdays, respectively), resulting in about 256 annual workdays (21.33 workdays * 12). This level is comparable to the annual workdays actually experienced by USWC over the past several years, which have ranged between 254 and 256 workdays. Based on my calculations, the difference between the Company and Staff proposed levels of regular pay is primarily attributable to this workday effect.

Q. Is a companion adjustment to ACC Staff Adjustment C-11 required to recognize associated employee benefit and payroll tax effects?

A. No. This adjustment already incorporates benefit and payroll tax effects, such that a separate "companion" adjustment would neither be necessary nor appropriate.

INCENTIVE COMPENSATION

Q. Why is ACC Staff Adjustment C-12 necessary?

A. ACC Staff Adjustment C-12 removes a portion of the accruals for the incentive compensation plans offered by the Company during the test year. This adjustment eliminates the Company's test year expense for the Short-Term Incentive Plan ("STIP"), the Long-Term Incentive Plan ("LTIP"), the Annual Bonus Plan ("ABP") and the IT-Career Structure Bonus.

Q. Why have you proposed to disallow costs associated with these incentive plans?

A. In general, there are several reasons why I believe this adjustment is warranted in the current proceeding. First, a significant proportion of the incentive plan targets focus on USWC's corporate-wide financial results. As USWC achieves the higher financial targets, the related cost of the Company's discretionary incentive compensation plans should be funded from the increased levels of net income, net cash flow and revenues, rather than through the prices charged to USWC's Arizona customers.

Second, one of the objectives of these incentive compensation plans is to focus attention on service quality (i.e., using customer value analysis and wholesale service quality measures). As discussed subsequently herein, the Company was unable to meet many of its own service quality targets nation-wide, without regard to the quality of USWC's service in the State of Arizona. In my opinion, these deficiencies do not support the recovery of the costs of incentive compensation programs specifically designed to measure the improvement in quality and cost performance.

Q. What is incentive compensation?

A. In general terms, incentive compensation is a form of monetary reward to company employees who achieve predetermined goals and objectives. This form of compensation is considered to

be discretionary or "at risk" to the employee as the amount paid from year to year is neither fixed, regular nor even certain to occur.

Q. Does USWC view its incentive compensation plans as a discretionary form of compensation?

A. Yes. In response to Data Request No. UTI 2-17, the Company referred to incentive compensation as a fully discretionary component of the employee compensation package. When asked to define the phrase "fully discretionary component" as used in this context, the Company indicated:

> Annual Bonus administrative guidelines explain: THE ANNUAL BONUS PLAN DOES NOT GUARANTEE THAT ANY AMOUNT OF COMPENSATION WILL BE PAID TO ANY EMPLOYEE. U S WEST, AT ITS SOLE DISCRETION, HAS THE RIGHT TO MODIFY, CANCEL, OR WITHHOLD PAYMENTS UNDER THE ANNUAL BONUS PLAN, IN ACCORDANCE WITH APPLICABLE LAW, DUE TO CHANGING MARKET CONDITIONS, INDIVIDUAL PERFORMANCE, AND GENERAL BUSINESS NEEDS.
> [Data Request No. UTI 17-19(a), Original Emphasis]

Q. How much incentive compensation expense has USWC recorded during the test year and proposed to include in the calculation of revenue requirement?

A. The following table sets forth the amount of incentive compensation expense (i.e., on a total Arizona basis) embedded in the test year operating results, as adjusted for the out-of-period correcting entries identified by the Company in response to Data Request No. UTI 43-20:

Description	Total Arizona		
	As Recorded	Out-of-Period Adjustments	Adjusted Test Year
Annual Bonus Plan			
Net Cash Flow	[redacted]		[redacted]
Revenue	[redacted]		[redacted]
USWC Net Income	[redacted]		[redacted]
Business Unit Results	[redacted]		[redacted]
Customer Value Analysis	[redacted]		[redacted]
Total ABP	[redacted]		[redacted]
Performance Bonus Plan	[redacted]		[redacted]
Total Management Team Awards	[redacted]	[redacted]	[redacted]
Occupational Team Awards	[redacted]	[redacted]	[redacted]
Merit Awards	[redacted]		[redacted]
IT-Career Structure Bonus	[redacted]		[redacted]
Short-Term Incentive Plan	[redacted]		[redacted]
Long-Term Incentive Plan	[redacted]		[redacted]
Total	[redacted]	[redacted]	[redacted]

Sources: USWC confidential responses to UTI 60-13, RUCO 29-14S1 UTI 59-25 and response to UTI 43-20.

In comparison, the global EOP annualization of salaries and wages resulted in the inclusion of [redacted] of incentive compensation in the Company's proforma operating expenses. [See USWC confidential response to Data Request No. UTI 63-5.]

Q. Are you proposing the disallowance of all test year expense associated with the Company's incentive programs?

A. No. The Staff is not proposing to eliminate the test year costs associated with Merit Awards or Performance Bonus Plan. Also, ACC Staff Adjustment C-12 only adjusts the occupational team awards to reflect the out-of-period correction identified by USWC. However, ACC Staff Adjustment C-12 does propose that the remaining incentive plan costs be disallowed for ratemaking purposes.

Q. Could you briefly describe the various incentive compensation pay plans available to USWC employees that are the subject of Staff's disallowance recommendation?

A. Yes. USWC maintains several incentive compensation plans that are available to employees. The following general discussion of each plan was supplied in USWC's response to Data Request No. UTI 2-17 and UTI 60-11:

- **Long-Term Incentive Plan** (LTIP). The LTIP bonus opportunity is based on a three-year average of Company performance beginning with the year of the LTIP grant date. This plan was designed to promote long-term strategic behavior.

- **Short-Term Incentive Plan** (STIP). This plan provides incentive pay for officers of the Company. The STIP plan in effect during the test year provided an opportunity for annual cash bonus pay-outs based on Company performance measures approved by the Board of Directors. The pay-outs may be adjusted for personal performance. Any compensation granted pursuant to this plan may be above or below an executive's target opportunity.

- **Annual Bonus Plan** (ABP). The ABP incentive plan is a fully discretionary component of the total compensation package for managers below the officer rank. The ABP promotes the growth and profitability of U S WEST by encouraging employees to strive to produce increasingly successful business results. The Board of Directors approves the corporate component of the bonuses, which uses the same measures as the executive STIP.

The rationale for Staff's proposed disallowance of incentive compensation costs will be discussed in the following testimony subsections.

IT-Career Structure Bonus

Q. Could you explain why your description of the Company's various incentive compensation plans did not discuss the IT-Career Structure Bonus plan?

A. Yes. I recall only recently becoming aware of this particular plan, following the receipt of the Company's responses to Data Request Nos. RUCO 29-14S1 and UTI 53-3 in late July 2000. In addition to the pending Arizona rate proceeding, I participated in a USWC rate case in New Mexico in which hearings were recently completed (NMPRC Utility Case No. 3008). During my review of the Company's incentive compensation plans in both of these proceedings, I do not recall any identification of the existence of this plan, much less the provision of any plan documentation or information concerning related plan costs, until recently.

Q. Do the responses to Data Request Nos. RUCO 29-14S1 or UTI 53-3 provide any narrative information concerning this particular plan?

A. Yes. The non-confidential portion of the response to Data Request No. UTI 53-3 refers to and provides a copy of the business unit component of the IT-CS Bonus Plan and the ABP. The supplemental response to Data Request No. RUCO 29-14S1 contains the following passage:

> In addition, the IT-Career Structure Bonus Plan has also been added for the year 1999. In the year 2000, the IT-Career Structure Bonus Plan transfers to the affiliate.
> [Data Request No. RUCO 29-14S1]

Q. Does ACC Staff Adjustment C-12 eliminate the cost of this particular plan?

A. Yes. This Staff adjustment eliminates the cost of this plan for two reasons. First, as indicated in the preceding quote from Data Request No. RUCO 29-14S1, this plan will be transferred to an affiliate in the year 2000.

1 Second, although the Company has failed to provide detailed plan documentation and other
2 related information concerning the composition of this plan, it appears that the IT-Career
3 Structure Bonus Plan is just another combination of the business unit and corporate
4 components of the ABP, which will be discussed further in a separate subsection. Without
5 additional information beyond that supplied in these responses, it is difficult to engage in any
6 meaningful review of the plan and assess whether the costs thereof should be charged to the
7 Company's regulated ratepayers.

8 **Long-Term Incentive Plan**

9 Q. Could you briefly explain why you have proposed to disallow the test year expense associated
10 with LTIP?

11 A. LTIP was structured as an overlapping three-year plan. For example, the 1997 LTIP
12 encompassed the period 1997-1999, while the 1998 plan covered calendar years 1998-2000.
13 However, according to the response to Data Request No. UTI 60-12, the LTIP terminated with
14 the consummation of the merger and has been replaced with a plan that relies exclusively on
15 stock options, which generates no operating expense. As a result, the Company no longer
16 expects to record any LTIP expense. Because of the LTIP termination, ACC Staff Adjustment
17 C-12 removes the test year recorded expense as a non-recurring cost.

18 Q. If the plan had not been terminated and replaced by a stock plan that does not effect operating
19 expense, do you believe that it would still have been appropriate to remove these costs from
20 the test year?

21 A. Yes. Based on my review if the components of the LTIP, I would nevertheless have
22 recommended the disallowance of these expenses. However, because of the conditions
23 surrounding the termination of this plan, there is no need for a detailed discussion of the
24 various LTIP components.

Short-Term Incentive Plan

Q. Please identify the performance measures that comprise the STIP.

A. The following table summarizes the formula and factors of performance that comprise the 1999 STIP:

Short-Term Incentive Plan

Weight	Component
	Financial:
20%	* Net Income
20%	* Net Cash Flow
20%	* Total Revenue
60%	Total Financial
	Service:
30%	* Consumer CVA (10%) * Small Business Group CVA (10%) * Bus. & Gov't Services CVA (10%)
10%	Wholesale Service Quality Measures
100%	Total

Source: USWC response to Data Request No UTI 60-11.

As indicated in this table, the STIP provides a weighting of 60% for financial measures (net income, net cash flow and total revenue), 30% Customer Value Analysis and 10% Wholesale Service Quality.

Q. Do you recommend that the ACC allow the Company to recover the portion of its STIP costs associated with USWC's financial measures?

A. No. I do not believe that the Commission should allow USWC to recover from ratepayers the cost of incentive compensation plans that focus heavily on the achievement of increasing

financial targets and enhancing corporate profitability. Further, the financial measures included in the STIP and ABP pertain to the Company's operations in all jurisdictions – not just the Company's Arizona operations. Although individual State results are factored into the financial targets and achievement levels, the Company's Arizona operations are not tracked separately or explicitly considered in the incentive compensation calculations. As a result, the opportunity for the Company's Arizona employees to materially influence corporate-wide financial results is limited, since Arizona represents about 15% of the Company's regulated operations.

Q. How have these financial measures changed over time?

A. According to the confidential responses to Data Request Nos. UTI 2-17 and UTI 60-11, the net income targets have increased significantly over the past several years:

($ in millions)	Net Income		Net Cash Flow		Total Revenue	
	Target	Actual	Target	Actual	Target	Actual
1999	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1998	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1997	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1996	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Sources: Confidential responses to Data Request Nos. UTI 2-17 & UTI 60-11.

During the period 1997 through 1999, USWC has met or exceeded the 100% targets for the applicable financial components.

Q. Could you briefly describe the service quality component of the STIP?

A. Yes. The portion of the 1999 STIP that considers service quality relies heavily (30% weight) on a Customer Value Analysis ("CVA"). The CVA represents the results of [redacted]

[redacted] So, in the traditional sense, the CVA does not directly evaluate the timeliness or adequacy of service installations, changes, repairs or overall quality of the specific service provided to Arizona customers. Instead, the [redacted]. In 1999, the Company only exceeded the minimum target payout level for [redacted] CVA "service" elements. [See confidential Data Request No. 60-11.]

The Wholesale Service Quality Measure addresses USWC's ability to meet [redacted]. According to the 1999 STIP results, USWC's performance achievements [redacted]. Consequently, the Wholesale Service Quality weighted payout level for the 1999 STIP was [redacted]. [See the confidential response to Data Request No. UTI 60-11.]

Q. Do either the CVA or the Wholesale components focus on assessments of service quality in Arizona?

A. No. Like the corporate financial component, both of these service quality measures are based on total Company results. [Data Request No. UTI 18-27.]

Q. What is your recommendation concerning the inclusion of the service quality component of the STIP?

A. During 1999, the Company's confidential response to Data Request No. UTI 60-11 indicates that the STIP achieved a weighted payout of [redacted] as compared to the 100% target level. Concerning the STIP service quality components, the results for [redacted]. This resulted in the financial components contributing [redacted] of the [redacted] pay-out level achieved in 1999, with the service components making up the remaining [redacted]. As a result, the financial components, which constitute only 60% of the STIP weighting, actually comprised [redacted] of the STIP pay-out. Given the heavy financial weighting and the extensive reliance on [redacted] to evaluate service quality, I recommend that the entire cost of the STIP recorded during the test year, including the service quality component, be eliminated for ratemaking purposes.

Annual Bonus Plan

Q. What are the performance measures underlying the ABP?

A. The ABP is comprised of both corporate measures and business unit results, as shown below:

Annual Bonus Plan

Weight	Component
	Corporate Component (aka STIP):
20%	* Net Income
20%	* Net Cash Flow
20%	* Total Revenue
60%	Total Financial
40%	**Individual Business Unit Results**
100%	Total

Source: USWC response to Data Requests UTI 60-11.

As indicated previously, the ABP corporate measures are the same as the executive STIP. So, the Staff proposes to handle the regulatory recovery of the corporate component of the ABP in the same manner as was discussed with the STIP. The individual business unit results component is unique to the ABP.

Q. Should the financial and CVA components of the ABP be disallowed for the same reasons as discussed in the portion of your testimony concerning the STIP?

A. Yes.

Q. Could you explain the "Individual Business Unit Results" which receive a 40% weighting in the ABP?

A. Unfortunately, I can only provide limited information concerning this element of the ABP. For calendar years 1997 through 1999, Data Request Nos. UTI 2-17 and UTI 60-11 sought detailed information for each incentive compensation plan including information presented to employees and other participates as well as plan descriptions and objective measures of performance. Data Request No. UTI 60-14 specifically sought, in part, a copy of the information distributed to employees and other plan participates in 1999 that discuss and describe each individual business unit component of the ABP. With regard to the request for information distributed to plan participates, the response to Data Request No. UTI 60-14 stated:

> Individual business units handle the communication of the ABP to the individual employees. No copies are available. Please refer to response to UTI 53-02 Confidential Attachment B for information provided at employee orientation regarding ABP....
> [Data Request No. UTI 60-14(7)]

The referenced Attachment B (Data Request No. UTI 53-2) is comprised of only four presentation slides that convey general overview information about the structure of the ABP.

This material does not contain any information specific to the goals and objectives for the individual business unit. Rather than supplying documentation that would convey a more comprehensive understanding of the individual business unit process, the Company has represented that "no copies" of the information provided to employees is available in support of this component that receives a 40% weighting in the ABP.

However, the response to Data Request No. UTI 60-14 does provide a general listing by business unit of the performance targets, weighting factors and achieved results for the 1999 plan year. In some instances, this data provides an explanation of the business unit targets while other business unit summaries only provide a "one line" listing of each objective.

Although each individual business unit is responsible for maintaining and communicating their own ABP, USWC has not been able to provide even a representative sampling of any specific employee communications. Without this information, I believe that it is impossible for the Staff or any other party to evaluate the reasonableness of the business unit component of the ABP and consider the propriety of ratemaking recovery of the related incentive compensation costs. As a result, I am recommending full disallowance of this ABP component.

Q. If the Company were to produce the requested employee communications at a later stage of this proceeding, would you be willing to reconsider your proposed disallowance?

A. No. This concern was also raised in the Company's New Mexico rate case. Overall, the Company has now had months to search its records and locate the requested employee communications that should be in USWC's possession and control. For the Staff to have any reasonable expectation to review, evaluate and submit follow-up discovery regarding the business unit target objectives, the Company should have provided such information long ago. I do not believe that USWC should be allowed to gain any advantage, at the expense of the

Staff and the Company's ratepayers, by producing responsive information after the filing of Staff's direct evidence.

Q. Have you attempted to review the confidential business unit information supplied in response to Data Request No. UTI 60-14 in order to evaluate whether some portion of the ABP business unit costs should be allowed?

A. Yes. I have reviewed the confidential information supplied in response to Data Request No. UTI 60-14. Although the information supplied provided less than detailed information in many respects, a significant segment of the business unit objectives were, overall, tied to largely undefined financial performance measures – as contrasted with specific work duties or traditional service quality measures. As a result, ACC Staff Adjustment C-12 proposes a full disallowance of the Business Unit portion of the ABP incentive program.

Additional Considerations

Q. Do you have any other comments for the Commission to consider relative to the treatment of incentive compensation for ratemaking purposes?

A. Yes. In general terms, forms of incentive compensation represent methods of providing monetary compensation to the work force through an unguaranteed bonus or alternative compensation program, in addition to base wages. These programs are typically tied, in part, to targeted financial results, service quality and employee performance. The ratemaking recognition of incentive compensation serves to virtually eliminate company risk of loss for the amounts included in revenue requirement, at ratepayer expense.

Theoretically, employees are motivated to perform well because, if the incentive target levels are not achieved, they will not receive incentive compensation pay. Recognizing that merit increases, workforce reductions and promotions affect a company's total payroll costs, it is generally accepted that employees will continue to receive their base compensation irrespective

of the company's earnings or achieved target levels, provided their work continues to be satisfactory. However, incentive programs require certain conditions other than satisfactory work to precede or trigger the pay-out of the bonus compensation, thereby presumably placing an employee "at risk" for that portion of his/her compensation.

If minimum targets or thresholds are not met, employees do not receive incentive payments and the amount of incentive compensation included in rates only increases the Company's profits. If the targets met are at levels lower than those reflected in rates, employees only receive incentive payments commensurate with levels actually achieved and any difference increases Company profits. Regardless of the level of incentive compensation included in the cost of service, ratepayers would nevertheless be required to fund the allowed level of incentive plan costs – regardless whether the intended benefits were realized or any pay-outs occurred during the period rates were in effect.

Under each of these situations, ratepayers would be "at risk" to fund the incentive plan costs included in regulated rates regardless of pay-out, while employees would be "at risk" because targets might not be achieved for any number of reasons. At the same time, any incentive pay-outs below the levels included in and recovered through revenue requirement would flow through and contribute to the Company's net income.

By setting rates to include incentive compensation, the annual intra-company debate would be who gets the ratepayers' money – the employees or the Company and its shareholders. In my opinion, shareholders benefit through increased profits, revenue and cash flow resulting from employees improving their performance in pursuit of incentive compensation payments. As such, shareholders should be "at risk" or responsible for the potential incentive compensation. In my opinion, the inclusion of incentive compensation in rates would not put shareholders "at risk".

Q. Can the Company decide to forego or reduce plan pay-outs?

A. Yes. USWC has reserved the right to forego or reduce the pay-outs otherwise due under the plan. Although there has not yet been a plan year in which the entire corporation has received no incentive pay-out, the entire corporation has received downward pay-out adjustments based on non-performance. [See USWC response to Data Request No. UTI 25-19]

Q. What has been the annual level of incentive compensation expense over the last several years?

A. In the confidential responses to Data Request Nos. UTI 2-5, UTI 2-17 and RUCO 29-14S1, USWC provided the annual total Arizona amounts of incentive compensation expense, as set forth in the table below:

Period	Amount
1996	[redacted]
1997	[redacted]
1998	[redacted]
1999	[redacted]

Sources: Data Request Nos. UTI 2-5, UTI 2-17 and RUCO 29-14S1

As illustrated by this confidential information, the level of incentive compensation recorded by USWC in Arizona has decreased by 25% since 1997 and is the lowest level in this four year period. Although the Company's response to Data Request No. UTI 43-20, Attachment J, has indicated that the test year accruals should be adjusted to reverse the effect of out-of-period true-ups, the available information does not allow for each prior year to be similarly adjusted to reclassify out-of-period true-ups for consistent comparison purposes.

If existing rates had been set on the levels experienced during 1997, USWC would have continued to collect said amount through rates during the years 1998 and 1999 even though the

actual expenses under the plans were substantially lower. In effect, USWC would retain the difference, while ratepayers would continue to provide funds commensurate with the higher levels. As indicated in the confidential response to Data Request No. UTI 63-5, USWC's EOP annualization approach would result in proforma incentive compensation expense of [redacted], before allocation to intrastate.

Q. Does the Company agree with your views regarding the benefits and costs of incentive compensation?

A. Apparently not. In response to Data Request No. UTI 25-18, USWC provided the following explanation of how customers benefit from incentive compensation:

> As explained in the response to UTI 17-19, the regulatory customer benefits from incentive compensation because such compensation encourages higher levels of performance. There are many ways that high level of performance benefits customers. For example, customers may receive better service or the cost of that service may be lower as a result of employee efficiency. On the other hand, if employees do not earn the incentive compensation, USWC's expenses are reduced. The customer benefits from reduced expenses because reduced expenses ultimately translates into reduced cost of service for rate setting purposes.
> [Data Request No. UTI 25-18(a)]

This response seems to communicate a view that ratepayers stand to benefit regardless whether the incentive plans are successful. On one hand, this response indicates that if the plans are successful in improving service or reducing costs, ratepayers benefit. At the same time, the Company seems to state that even if the goals are not met and employees do not receive any incentive pay, ratepayers would still benefit because expenses are lower due to the non-payment of incentive compensation. This is a classic "heads I win, tails you lose" situation that would seem to benefit ratepayers, using the Company's logic. In fact, this same discovery response goes on to state, in a somewhat contradictory manner, that ratepayer benefits are not

contingent on whether the Company has a rate case pending in which the reduced cost of incentive compensation can be flowed through to ratepayers:

> No, the answer to part a. does not depend on whether USWC has a rate case pending. It may depend on whether the reduced expense is reflected in either a pending rate case or a rate case to be filed.
> [Data Request No. UTI 25-18(b)]

In the absence of a rate proceeding to pass on the reduction in incentive costs to ratepayers, I find it very difficult to envision exactly how USWC's customers could enjoy a potentially multi-million dollar reduction in expense or somehow benefit by the Company not meeting the target objectives. To the extent that ratepayers fail to receive the products/ services or efficiencies that were targeted within USWC's strategic goals, it would seem that ratepayers would be in the unenviable position of: (a) having to fund levels of incentive pay that is not paid out to employees because (b) the target objectives were not met that (c) should have resulted in alleged ratepayer benefits that (d) never materialized. In any event, it is my opinion that the reasoned regulatory approach would be to simply adopt the Staff's proposed disallowance of incentive costs.

Q. Do you believe that the Company should terminate its incentive plans?

A. No. The important point to recognize is that predefined target levels serve as the trigger mechanism for these plans. If these costs are inappropriately included in revenue requirement, the incentive amounts from the ratepayer's perspective become just another form of "base" compensation to employees, or an increased return to shareholders if pay-outs are not made. In other words, assuming rate recovery is allowed, ratepayers would pay the cost of the incentive plans regardless of whether any pay-outs are made to employees or any benefits actually arise.

It is not the Staff's intention or desire to interfere with management's discretion in designing or applying the terms and conditions of employee compensation plans. So, the Staff is not recommending that these incentive plans be terminated. However, the Staff does recommend that the costs associated with certain components of these plans be excluded from the determination of overall revenue requirement in this proceeding.

Q. Do you have any further comments with regard to the incentive compensation expense recorded during the test year?

A. Yes. In response to Data Request No. UTI 43-20, Attachment J identified certain journal entries recorded during the test year that corrected incentive compensation accruals originally booked in calendar years 1997 and 1998. Because these journal entries relate to prior periods, it would typically be appropriate to reverse the effect of those out-of-period true-ups from the test year. The reversal adjustment quantified by the Company would increase intrastate operating expense by about $1.6 million.

In response to Data Request No. UTI 59-24, the Company explained that it accrues for management and occupational team awards in the year prior to actual pay-out. This timing process is necessary because the actual achievements under the various incentive plans are not known or precisely quantifiable until after the close of the plan year. In any event, this response also explained that:

> These accruals are generally based on assumptions that the Company will meet all of its targeted objectives and will, therefore, payout 100% of the team award accruals.
> [Data Request No. UTI 59-24]

On a related matter, the response to Data Request No. 59-23 explains that the Company has not recorded any true-up entries in January through May 2000 that adjust the incentive compensation accruals recorded during the 1999 test year. While I have no reason to question

this response, it does raise questions about the reasonableness of the accruals recorded during the test year.

Q. Please explain.

A. If the incentive compensation accruals recorded during 1999 were based on an assumption that the Company would, on average, achieve100% of the target results, the test year accruals may be excessive. In the confidential responses to Data Request Nos. UTI 60-11 and UTI 60-14, the Company provided specific information regarding the targets and objectives for the various incentive plans. Needless to say, it does not appear that the average levels achieved during the 1999 plan year met or exceeded 100% of the target level.

As a consequence, the Company may yet record correcting or true-up journal entries later in the year 2000 or 2001 with downward revisions to the 1999 accruals for incentive compensation expense. In the event that the Commission does allow the Company to recover the test year levels of incentive compensation "as recorded" during 1999, such amounts may be excessive and overstated.

SOP 98-1 (Internal-Use Software)

Q. Please describe ACC Staff Adjustments C-13 and B-2.

A. ACC Staff Adjustment C-13 recognizes the effect of recent changes in accounting for the cost of computer software developed or obtained for internal use. This adjustment, in conjunction with ACC Staff Adjustment B-2, also reflects the Company's correction to its test year accounting for internal use software.

Q. Please describe this recent accounting change.

A. The following discussions, which appear in USWC's 1998 and 1999 SEC Form 10-K Annual Reports, provide concise summaries of this accounting change and the related effects on the Company's results of operations:

> **1998 SEC 10-K**
> On January 1, 1999, we adopted the accounting provisions required by the American Institute of Certified Public Accountants' Statement of Position ("SOP") 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use," issued in March 1998. SOP 98-1, among other things, requires that certain costs of internal use software, whether purchased or developed internally, be capitalized and amortized over the estimated useful life of the software.
>
> Based on information currently available, adoption of the SOP may result in an initial increase in net income in 1999 of approximately $100-$150 [million]. In periods of adoption, if software expenditures remain level, the impact on earnings will decline until the amortization expense related to the capitalized software equals the software costs expensed prior to the accounting change. [USWC 1998 SEC Form 10-K, p.16]

> **1999 SEC 10-K** [all amounts in millions]
> COMPUTER SOFTWARE. On January 1, 1999, we adopted the accounting provisions required by the American Institute of Certified Public Accountants' Statement of Position ("SOP") 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use". SOP 98-1, among other things, requires that certain costs of internal use software, whether purchased or developed internally, be capitalized and amortized over the estimated useful life of the software. Capitalized computer software costs of $544 and $180 at December 31, 1999 and 1998, respectively, are recorded in property, plant and equipment and other assets - net. Amortization of capitalized computer software costs totaled $104, $82 and $78 in 1999, 1998 and 1997, respectively. [USWC 1999 SEC Form 10-K, p. F-6, FreeEdgar.com]

All non-governmental entities were required to implement this accounting change for fiscal years starting after December 15, 1998. Accordingly, USWC adopted SOP 98-1 on January 1, 1999, for financial reporting purposes, but not for regulatory accounting purposes.

Q. Why did SOP 98-1 require the capitalization and amortization of the cost of internal use software?

A. According to the Accounting Standards Executive Committee, the SOP 98-1 project was undertaken because of inconsistent accounting for software costs. The following historical information was extracted from the Introduction and Background section of SOP 98-1:

> 1. The Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 86, *Accounting for the Costs of Computer Software to Be Sold, Leased or Otherwise Marketed*, in 1985. At that time, the FASB considered expanding the scope of that project to include costs incurred for the development of computer software for internal use. The FASB concluded, however, that accounting for the costs of software used internally was not a significant problem and, therefore, decided not to expand the scope of the project. The FASB stated that it recognized that at that time the majority of entities expensed all costs of developing software for internal use, and it was not convinced that the predominant practice was improper.
>
> 2. Because of the absence of authoritative literature that specifically addresses accounting for the costs of computer software developed or obtained for internal use

> and the growing magnitude of those costs, practice became diverse. Some entities capitalize costs of internal-use computer software, whereas some entities expense costs as incurred. Still other entities capitalize costs of purchased internal-use computer software and expense costs of internally developed internal-use computer software as incurred.
>
> 3. The staff of the Securities and Exchange Commission (SEC) and other interested parties have requested that standard setters develop authoritative guidance to eliminate the inconsistencies in practice. In a November 1994 letter, the Chief Accountant of the SEC suggested that the Emerging Issues Task Force (EITF) develop that guidance. However, the EITF and the Accounting Standards Executive Committee (AcSEC) agreed that AcSEC should develop the guidance.
> [SOP 98-1, p.7]

In addition to improving the comparability of financial data between entities, AcSEC expressed the belief that

> "...the costs of computer software developed or obtained for internal use are specifically identifiable, have determinate lives, relate to probable future economic benefits (FASB Concepts Statement No. 6), and meet the recognition criteria of definitions, measurability, relevance, and reliability (FASB Concepts Statement No.5).
> [SOP 98-1, par.64]

Q. Has the FCC adopted SOP 98-1 for interstate regulatory purposes?

A. Yes. In an order issued on June 30, 1999, the FCC adopted SOP 98-1.

Q. Are you recommending that the ACC adopt capitalization accounting for internal use software because the Company has been required to adopt SOP 98-1 for both external financial reporting purposes and FCC regulatory purposes?

A. No. In general terms, costs which relate solely to the current period should be expensed as incurred. Costs incurred during the current year that relate to prior years should also be expensed. However, those costs that provide identifiable benefits or otherwise relate to more than one future period should be capitalized and amortized over the expected benefit period.

1 Nevertheless, the mere recognition of a cost as a current period expense does not necessarily
2 equate to inclusion in rates. For example, the regulatory process typically eliminates operating
3 expenses associated with prior periods. Similarly, the level of certain costs recorded as
4 expense in a particular test year may be abnormal (i.e., too high or too low), thereby requiring
5 normalization adjustments to reflect reasonable ongoing levels.

6 Q. During 1999, did USWC account for the cost of internal-use software differently in its
7 financial accounting records than in its regulatory accounting records?
8 A. Yes. For financial accounting purposes, the Company capitalized the cost of internal-use
9 software costs, consistent with SOP 98-1 as noted in the earlier SEC 10-K excerpts. At that
10 time, USWC continued to expense the costs of internal-use software in its regulatory books of
11 accounts. However, following the FCC's adoption of SOP 98-1, the Company similarly
12 modified its accounting for the interstate portion of its regulated operations to reflect this
13 change in capitalization, but continued to expense the portion of those same costs allocated to
14 its intrastate operations.

15 Q. Could you explain how the Company can use different accounting treatments for the same
16 item in its accounting records?
17 A. Yes. USWC maintains and reports its financial results using accounting methods that may
18 treat certain transactions differently for financial reporting, FCC reporting and State regulatory
19 reporting purposes. The Company's financial reporting records are maintained on what is
20 generally referred to as an "FR" (or financial reporting) basis, consistent with Generally
21 Accepted Accounting Principals (or "GAAP"). The Company's financial results in Arizona
22 are initially prepared and maintained consistent with FCC accounting requirements. These
23 results are generally identified as being presented on an "MR" basis. Any differences in
24 accounting treatments or requirements that exist between the FCC and State regulatory
agencies are accounted for in the Company's "offbook" or side records, thereby allowing for

1 specific tracking and consideration of these differences in State regulatory proceedings. The
2 Company's "JD" reports reflect the accounting presentation that incorporates any
3 "jurisdictional" accounting differences with the FCC and is consistent with State accounting
4 requirements. While it is not as complicated as it may seem, USWC has adopted SOP 98-1
5 and accounts for the capitalization of internal-use software for both "FR" and "MR" accounting
6 purposes, but continues to expense these costs for "JD" accounting purposes in the absence of
7 a Commission decision adopting SOP 98-1 for intrastate regulatory purposes.

8 Q. Why does the Company report its operating results to the financial community on a different
9 basis than is reported to the FCC?
10 A. As indicated in USWC's 1993 annual report to the Securities and Exchange Commission (SEC
11 10-K), the Company incurred a non-cash, extraordinary charge of $3.0 billion, net of income
taxes, in conjunction with its decision to discontinue accounting for its operations in
13 accordance with Statement of Financial Accounting Standards No. 71 (FAS71), "Accounting
14 for the Effects of Certain Types of Regulation." The Company's decision to discontinue the
15 application of FAS71 "was based on the belief that competition, market conditions and the
16 development of broadband technology, more than prices established by regulators, will
17 determine the future revenues of the Company." As a result of this change, the operating
18 results reported to the financial community diverge from the results reported for regulatory
19 purposes, because the Company's regulatory accounting and reporting methods were not
20 affected by this change. So, the Company began maintaining different accounting records for
21 financial reporting purposes than for regulatory purposes.

22 Q. The earlier quotes from USWC's 1998 and 1999 SEC 10-Ks, indicated that the adoption of the
23 SOP 98-1 would result in increased net income during 1999. Has the Company proposed to
24 reflect the Arizona share of this increase in net income in its proposed revenue requirement?

A. No. According to the response to Data Request No. UTI 13-21, USWC has neither proposed nor intends to seek Commission approval to recognize this accounting change for intrastate regulatory purposes.

Q. What is USWC's current estimate of the annual software costs to be shifted between expense and capital accounts?

A. Initially, USWC's response to Data Request No. UTI 13-21 estimated that, on a total USWC basis, the Company would capitalize between $340-$390 million in 1999. USWC's 1999 SEC 10-K stated that the Company had capitalized $544 million of internal-use software costs. However, the Company's confidential responses to other Staff discovery requests indicate yet a different level, which falls within this range. [See USWC responses to Data Request Nos. UTI 13-21 and UTI 64-4.]

Q. How much of this shift between expense to capital accounts during 1999 occurred on an Arizona intrastate basis?

A. Although USWC began accounting for the effect of SOP 98-1 for MR basis accounting purposes in 1999, the actual test year amounts recorded in Arizona reflect various accruals, reversals and corporate prorate misallocations. Based on the available information, it seemed more appropriate to allocate total USWC amounts to Arizona intrastate operations, rather than rely on questionable test year data.

ACC Staff Adjustment C-13 presents the quantification of this apportionment and allocation process. Using confidential data supplied in response to Data Request No. UTI 64-4, the Arizona intrastate portion of this reclassification between expense and capital accounts would be approximately [redacted].

Q. Do you have any information which addresses why USWC has not sought ACC approval to capitalize internal-use software?

A. Yes. Data Request No. UTI 13-21(d) specifically requested USWC's position regarding whether this change should be reflected in Arizona revenue requirements. The Company's response to this portion of that discovery request is reproduced below.

> The company has not petitioned the Arizona Corporation Commission to adopt the software capitalization accounting. Since the life for the capitalized software is very short, the effect of this accounting on ratemaking is to produce a first year dip in revenue requirements followed by a near term turnaround of revenue requirements and over time, higher revenue requirements. Furthermore, the change from expensing of software to capitalization is not cash affecting, while the ratemaking effect would be cash affecting. Given both the short term revenue requirement profile and the fact that software capitalization is not cash affecting the Company does not intend to petition the Arizona Corporation Commission to adopt this accounting.
> [Data Request No. UTI 13-21(d)]

Q. Do you have any comments on the Company's position, as stated in the response to Data Request No. UTI 13-21(d)?

A. Yes. The Company's "not cash affecting" position is specious. As indicated in the response to Data Request No. UTI 20-12(a), the phrase "not cash affecting" simply means that the change in accounting method will not result in any change in the amount or timing of USWC's cash payments to fund software development and modification efforts. Further, the response to Data Request No. UTI 20-12(b) confirms that changes otherwise "not cash affecting" become "cash affecting" merely by recognizing those accounting changes for ratemaking purposes.

While these statements are technically true, it is important to recognize that this same "not cash affecting" label applies to a variety of other accounting changes for which USWC has previously sought regulatory approval and ratemaking treatment. Such items include:

- capital to expense shifts resulting from the adoption of the "new" uniform system of accounts prescribed by the FCC (i.e., Part 32);
- change in accounting from the cash method to the accrual method of accounting for compensated absences, merit awards and medical/ dental expenses;
- increase in the capitalization rules from $200 to $500, allowing the expensing of qualifying "small value" assets;
- increase in the capitalization rules from $500 to $2,000, allowing the expensing of qualifying "small value" assets;
- adoption of revisions to depreciation accrual rates and depreciation reserve deficiency amortizations;
- adoption of the FAS87 accrual method of accounting for pension costs; and
- adoption of FAS106, which implemented a change from cash to accrual method of accounting for post-retirement benefits other than pensions.

All of these items, but the adoption of FAS87, had the effect of initially increasing the rates charged USWC's ratepayers. Although those changes were "not cash affecting" until included in the ratemaking process, the Company still sought regulatory approval and rate treatment.

Q. Is it true that adoption of SOP 98-1 will produce a first year dip in revenue requirements followed by higher revenue requirements over time?

A. Yes. That is a true statement. However, the capital to expense shifts resulting from the adoption of FCC Part 32 resulted in higher initial revenue requirements followed by lower revenue requirements over time. In order for the Company's regulated customers to receive the full benefit of the capital to expense shift resulting from Part 32 accounting, USWC's intrastate rates would need to continue to be set on the basis of the Company's cost of providing service for at least several more years. Nevertheless, any change in accounting method has revenue requirement trade offs.

Q. Since you are recommending that internal-use software be capitalized, rather than expensed currently, how will the Company recover that investment?

A. With limited exceptions, capital assets are either depreciated or amortized to expense over a reasonable period of time. As a result, the capitalized cost of internal-use software will be recovered through a multi-year amortization to operating expense.

Q. What period are you using to amortize these capitalized software costs?

A. In response to Data Request No. UTI 15-20, the Company provided a calculation estimating the relative revenue requirement effect of adopting SOP 98-1. USWC used a five (5) year amortization period in that calculation, which I propose to use for purposes of amortizing such costs for intrastate ratemaking.

USWC PAYROLL ADJUSTMENT REVERSAL

1 Q. Please describe ACC Staff Adjustment C-14.

2 A. ACC Staff Adjustment C-14 reverses a payroll and benefit annualization proposed in the
3 Company's updated filing in this proceeding and identified as USWC Adjustment P-02.

4 Q. Why is the elimination, or reversal, of this adjustment necessary?

5 A. The reversal of this adjustment is appropriate for two reasons. First, as discussed previously,
6 ACC Staff Adjustment C-11 already has the effect of annualizing payroll and benefit expense
7 to consistently recognize both wage/salary rates and employee headcounts to levels at year-end
8 1999. Second, as discussed herein, this Company adjustment has the effect of inconsistently
9 and inappropriately reaching out beyond test year-end to solely recognize two price level
changes occurring in the year 2000, without similarly reflecting other post-test year changes
11 such as growth in revenue levels.

12 Q. Could you identify these price level changes?

13 A. Yes. The specific price changes underlying USWC Adjustment P-02 include an increase for
14 management employees effective March 1, 2000, and an increase for occupational employees
15 effective August 15, 2000.

16 Q. Why do you believe that it is inappropriate to recognize the effect of these post-test year
17 increases on wage/ salary expense for ratemaking purposes?

18 A. The ratemaking process in the State of Arizona is predicated on the concept of a historic test
19 year. Although annualization and normalization adjustments are common in establishing the
20 rates charged for regulated service, I do not believe that the Company should be allowed to
21 selectively recognize the effect of post-test year changes when the annualized amounts, by
definition, represent funds which were neither incurred nor expended during the historic test

year. In my opinion, it is one thing to annualize payroll expense to recognize the ongoing effect of cost changes implemented during the historic test year, but totally inappropriate to inconsistently capture isolated events as suggested by the Company.

Q. Would you agree that the Company will actually be paying the higher wage and salary rates by the time the Commission issues its final order in this proceeding?

A. Yes. One of the increases has already been implemented and the second will be implement shortly after the Staff files its direct testimony. There is no question that the higher wage and salary rates will be effective on a prospective basis. However, this does not justify the retrospective imposition of this effect on the 1999 test year.

As discussed in the test year section of my testimony, the revenue requirement formula is a combination of various elements: rate base, operating revenues, operating expenses and capital cost rates. When determining the valuation for each of these elements, it is imperative that the approach be internally consistent and comparable. Otherwise, any rate change could be seriously misstated.

My test year testimony section contains a series of charts that generally show increasing trends in rate base, access lines, employee counts, operating revenues, and operating expenses. Certainly, operating expenses and investment have increased, but so have operating revenues. Changes in one area that increase revenue requirement might be offset by decreases in other areas. A rate proceeding must balance these various elements of the revenue requirement formula and avoid the piecemeal recognition of only certain items to the exclusion of others.

In order to avoid such piecemeal distortions, there are two basic options available in setting rates. First, the various components of cost of service can be valued using a relatively stringent test year cut-off, as proposed by the Staff. Second, a specific post-test year known and

measurable period can be selected which allows all parties to identify the various adjustments that might be required in order to consistently match any number of changes occurring outside the test year. In a sense, the update of the test year from June 1998 to calendar year 1999 is an exercise encompassing an 18 month known and measurable period update. Unfortunately, USWC responds, in part, by continuing to reach out well beyond December 1999 into August 2000 to capture piecemeal wage and salary increases.

Q. Referring to the test year section of your testimony, you refer to and compare the Company's two revenue requirement filings. Do you believe that this comparison helps illustrate why the piecemeal recognition of post-test year changes should be avoided?

A. Yes. These two Company filings employ test years that were 18 months apart, but do not support a material change in overall revenue requirement. Although the Staff does not concur with the Company's EOP annualization approach in many areas, the fact remains that a relatively consistent application of USWC's ratemaking theories did result in a fairly limited change in the Company's filed revenue deficiencies – evidence demonstrating why piecemeal ratemaking should be avoided.

Obviously, these two Company test year filings employ different valuations for rate base, revenues and expenses. While the Staff would likely have proposed any number of ratemaking adjustments to either test year, the fact remains that all components of the ratemaking formula had changed during this 18 month period – but overall revenue requirement was relatively constant. Although there may seem to be some compelling need to reach out in a piecemeal fashion to selectively capture post-test year changes, the passage of time does <u>not</u> guarantee that revenue requirement will only go upward.

PROFORMA DEPRECIATION ANNUALIZATION

Q. Please describe ACC Staff Adjustments C-15 and B-5.

A. ACC Staff Adjustment C-15 represents the annualization of depreciation expense based on the depreciable plant included in rate base and the test year update to the depreciation accrual rates that were the subject of the Commission in Decision No. 62507 dated May 4, 2000 (Docket No. T-01051B-97-0689). This Staff adjustment represents an incremental change to the adjustment quantified in USWC's update filing.

USWC's update also reflected a proforma adjustment to rate base to recognize the depreciation reserve and deferred income tax reserve effects of the increase in depreciation expense due to the Commission's May 2000 represcription order. Because USWC did not commence booking these revised depreciation rates reflected in ACC Staff Adjustment C-15 until subsequent to the 1999 test year, ACC Staff Adjustment B-1 excludes the proforma effect of USWC's capital recovery adjustment from rate base (i.e., accumulated depreciation reserve and accumulated deferred income tax reserve).

Q. How was ACC Staff Adjustment C-15 quantified?

A. Book depreciation was annualized by multiplying the intrastate investment in depreciable plant as of December 31, 1999, by the updated test year accrual rates (i.e., by plant account) discussed by Staff witness Dunkel. The aggregate amount of the proforma depreciation was then compared to the sum of USWC's updated annualization adjustment and the amount of depreciation expense recorded in Account 6561 during the test year.

Q. Why did you quantify the Staff Adjustment C-15 in this manner?

A. USWC update Adjustment P-03 contained several errors that were corrected by Staff Adjustment C-15. First, the Company's annualization of the proforma effect of the change in

book depreciation rates was quantified improperly in USWC's update filing. Instead of quantifying the increment of annualized depreciation on year-end depreciable plant in excess of the as recorded or per book amount, the Company effectively multiplied the change in book depreciation rates by the end-of-period depreciable investment. The annualization approach used in the Company's update filing failed to capture the full annual depreciation effect of the increase in depreciable plant during the test year. Staff Adjustment C-15 corrects this error, which USWC also corrected in its response to Data Request No. UTI 52-14.

Second, USWC update Adjustment P-03 also had the effect of including above-the-line the depreciation on FCC Deregulated Services twice. In determining the "per book" test year starting point for the update test year, USWC recognized and included about $4.5 million of depreciation expense on the FCC Deregulated Services. However, when USWC prepared update Adjustment P-03, the Company's calculations also included an additional $4.1 million of annual depreciation without recognizing that the test year already included $4.5 million. Staff Adjustment C-15 corrects this error, which USWC also corrected in its response to Data Request No. UTI 52-14.

Q. Were there any other errors in quantifying depreciation expense in the Company's update filing that the Staff has corrected?

A. Yes. USWC update Adjustment P-03 also had the effect of annualizing the incremental effect of the higher depreciation rates on the depreciable plant associated with the access lines being sold to Citizens Utilities Company. Unfortunately, the Company's quantification of the adjustment to remove the access line sale from revenue requirement did not capture the effect of this increase in depreciation expense due to represcription. Although USWC did quantify the necessary correction in its response to Data Request No. UTI 52-14, the Company's filed update depreciation adjustment is misstated.

Q. Did ACC Staff Adjustment C-15 also correct the depreciation associated with the access line sale?

A. No. ACC Staff Adjustment C-15 does quantify, but does not post, the amount of the updated depreciation accrual rates applicable to the depreciable plant sold. In order to more readily identify the various components of the access line sale, Mr. Brosch has included the effect of this correction in the quantification of ACC Staff Adjustment No. C-29.

Q. In your opinion, is USWC in agreement with these various corrections or modifications?

A. Based on my review of the Company's responses to Data Request Nos. UTI 52-14 and UTI 58-18, it is my opinion that USWC does concur with these corrections.

Q. Did the correction of the errors in the Company's annualization methodology have the effect of increasing or decreasing revenue requirement?

A. In general terms, the correction of the Company's annualization methodology by Staff Adjustment C-15 had the effect of increasing intrastate revenue requirement.

Q. Why do you believe that it would not be appropriate to reflect the annual effect of the proposed depreciation rate increase in the quantification of rate base?

A. By Decision No. 60928 (Docket No. T-01051B-97-0689), the Commission denied USWC's request for a waiver from A.A.C. R14-2-102 and required the Company to file a rate application to enable the Commission to examine all of the Company's costs, expense and revenue levels including the effect of potential changes in depreciation rates. While the annualization of depreciation expense for ratemaking purposes should synchronize the new depreciation rates with the level of depreciable plant included in rate base, the determination of rate base should be valued at December 31, 1999 – as appropriately adjusted for eliminations, corrections or other valuation issues. In my opinion, the Commission should <u>not</u> reach out more than twelve months beyond test year-end to capture, in isolation, the full

proforma annual effect of the change in depreciation rates on the December 31, 1999, year-end balances for the accumulated depreciation reserve and the accumulated deferred income tax reserve. Otherwise, test year distortions and mismatched components of the ratemaking equation would yield improper results.

Q. As a result of reversing USWC's proforma effect on the accumulated depreciation reserve and the accumulated deferred income tax reserve, did Staff Adjustment B-5 have the effect of increasing or decreasing overall revenue requirement?

A. As indicated on ACC Staff Schedule F, Staff Adjustment B-5 increased intrastate revenue requirement by about $9 million.

Q. How does the value of the Staff's annualized depreciation expense compare to the level of depreciation actually recorded by the Company during the 1999 test year?

A. Referring to ACC Staff Adjustment C-15, the annualized level of intrastate depreciation expense (i.e., using the Staff's updated test year depreciation accrual rates as applied to year-end 1999 depreciable plant) is approximately $323.7 million. During the test year, the Arizona intrastate portion of the book depreciation expense actually recorded by USWC was about $222.9 million. In effect, the year-end annualization process yields about $100.8 million more depreciation expense than was actually recorded during the test year.

Q. Is the entire increase in depreciation expense of $100.8 million related solely to the change in book depreciation rates?

A. No. During 1999, the amount of book depreciation expense actually recorded by the Company is based on average depreciable investment. As the Company's investment in depreciable plant increases, so does the amount of related depreciation expense. Since USWC has increased the level of depreciable investment during the test year, the annualization of depreciation expense on year-end investment would be higher than recorded amounts – even if the Commission had

not authorized any changes in book rates. So, a portion of the $100.8 million increase in depreciation is related to the growth in depreciable plant with the balance due, in theory, to the change in depreciation rates.

Q. Do any of these depreciation amounts consider the offsetting effect of the pending sale of USWC's Arizona access lines?

A. No . As discussed previously, the amounts discussed in this section of my testimony are based on plant investment prior to the effect of the exchange sale. The direct testimony of Staff witness Dunkel will discuss other issues related to the magnitude of the depreciation rate change and Staff witness Brosch will apply the depreciation effect of the exchange sale.

INTEREST SYNCHRONIZATION

Q. Please describe ACC Staff Adjustment C-16.

A. ACC Staff Adjustment C-16 synchronizes the interest deduction for income tax purposes with the weighted cost of debt and the rate base recommendation of the ACC Staff. This method of annualizing interest expense is commonly referred to as interest synchronization.

Q. Please define interest synchronization.

A. Essentially, interest synchronization is a method which provides for the allocation of an interest expense deduction for income tax purposes to ratepayers equal to the ratepayers' contribution to the Company for interest expense, regardless of the Company's actual or estimated interest payments to its investors. Since revenue requirement is partially driven by the application of a rate of return to the rate base investment, the Company will recover from its ratepayers an amount of interest expense equal to the effective weighted cost of debt embedded in that rate of return. Thus, ratemaking interest can be quite different from the actual interest expense which might otherwise be deductible on a company's consolidated or stand-alone corporate tax return. Interest synchronization merely "synchronizes" the ratemaking tax deduction for interest with the interest expense ratepayers are required to provide the Company in utility rates.

Q. Did the Company propose the use of interest synchronization in quantifying its proforma level of income tax expense?

A. Yes. USWC Adjustment C-06 adjusts income tax expense to synchronize the amount of interest expense with the Company's proposed rate base and weighted average cost of debt.

Q. If the Company employed interest synchronization in developing its revenue requirement, why is it necessary for the Staff to separately quantify an adjustment for interest synchronization?

A. Had the Staff concurred in the Company's valuation of both rate base and cost of capital, a separate adjustment for interest synchronization would not have been necessary. However, the Staff's rate base recommendation differs from the Company's proposal. Consequently, it was necessary for the Staff to quantify a separate adjustment to recognize the ratemaking deduction for interest expense. In the event that the Commission ultimately adopts different rate base or capital cost valuations than presented by the Staff or the Company, interest synchronization should be recalculated using the Commission's findings, thereby appropriately synchronizing these revenue requirement elements.

FCC DEREGULATED SERVICES IMPUTATION

Q. Please describe Staff Adjustment No. C-17.

A. In the development of its updated revenue requirement filing, the Company has proposed to include above-the-line (or impute for intrastate ratemaking purposes) all revenues, expenses and investment associated with the provision of FCC deregulated services (except for Payphone, Wireless and Video Dialtone services) in the State of Arizona. Staff Adjustment C-17 imputes additional revenues above-the-line in order to ensure that the earnings deficiency associated with these FCC deregulated services are not borne (or cross-subsidized) by the remainder of USWC's Arizona customers subscribing to the Company's intrastate regulated products and services.

Q. Please describe the reference to FCC Deregulated Services.

A. In general, USWC provides a variety of services in Arizona that fall into one of three "jurisdictional" categories: interstate FCC regulated services; intrastate ACC regulated services; and services that have been either deregulated or never regulated by either the FCC and/or the ACC.

USWC maintains its Arizona accounting records pursuant to FCC Part 32 (the system of accounts) on a "total" State basis. FCC Part 36 governs the jurisdictional separation (i.e., allocation) of the "total" State amounts between interstate and intrastate operations. However, the Part 36 separations rules require that nonregulated results be determined (for the FCC Deregulated Services) pursuant to FCC Part 64 rules and be removed before the jurisdictional separation process allocates the remaining costs between the interstate and intrastate spheres of USWC's Arizona operations.

1 FCC deregulated services are considered to be enhanced services, pursuant to FCC definitions
2 and rules, and are specifically excluded from interstate results. The following example
3 illustrates how the FCC Deregulated services would be excluded from the jurisdictional
4 separation of operating expense, assuming an interstate gross allocator of 25%:

Jurisdictional Separations	Interstate Regulated	Intrastate Regulated
"Total" AZ Expense	$100,000	$100,000
Less: FCC Dereg Expense (per FCC Part 64 Rules)	-10,000	-10,000
Expense Subject to Separations	90,000	90,000
Interstate Separation (per FCC Part 36)	25.00%	
Interstate Regulated	$22,500	-22,500
Intrastate Regulated ("total"-FCC dereg-interstate)		$67,500

Jurisdictional Expense Recap:	
FCC Deregulated Services	$10,000
Interstate Regulated Services	22,500
Intrastate Regulated Services	67,500
"Total" AZ Expense	$100,000

5 However, for the purpose of assembling its overall revenue requirement in the current rate
6 proceeding, USWC has not limited its calculation of the intrastate cost of service to the
7 $67,500 shown in the above example. Instead, the Company has proposed to include the FCC
8 Deregulated Services (revenues, expenses and investments) above-the-line for intrastate
9 ratemaking purposes. Using the above example, the Company's proposal has the effect of
10 recognizing operating expense of $77,500 ($67,500 Intrastate plus $10,000 FCC Deregulated

Services) in the calculation of overall revenue requirement, not the $67,500 resulting from the jurisdictional separations process.

Q. In the aggregate, does USWC's proposal to include the FCC Deregulated Services above-the-line for intrastate ratemaking purposes have the effect of increasing or decreasing the overall revenue requirement presented in the Company's update filing?

A. Referring to the Company's revenue requirement workpapers and ACC Staff Adjustment C-17, USWC has proposed to increase rate base by approximately [redacted] and decrease net operating income by about [redacted]. In the aggregate, USWC's proposed inclusion of the FCC Deregulated Services above-the-line has the effect of increasing overall revenue requirement by about $3.5 million.

Q. How does Staff Adjustment No. C-17 ensure that the aggregate earnings deficiency of the FCC deregulated services is not borne or cross-subsidized by the balance of USWC's Arizona ratepayers?

A. The Company's proposal has the effect of increasing revenue requirement to recover the imputed revenue deficiency (associated with the above-the-line inclusion of the FCC deregulated service net operating loss and rate base investment) through its intrastate regulated rates. The proposed Staff adjustment imputes the additional revenues required for these FCC deregulated services to generate an above-the-line return on investment, or net operating income, equivalent to the weighted cost of capital return proposed by ACC Staff witness Hill for the Arizona regulated services.

Therefore, by allowing the FCC deregulated services above-the-line in conjunction with this Staff adjustment, the Company's FCC deregulated services would be recognized in the intrastate ratemaking process as if those services were generating sufficient revenues to cover

the related expenses and provide a return on the associated rate base investment equivalent to the regulated return adopted by the Commission in this proceeding.

Q. If the Commission's final order adopts a weighted cost of capital different than that proposed by the ACC Staff, would it be necessary to recalculate ACC Staff Adjustment C-17 to reflect such change?

A. Yes. If the Commission were to adopt different levels of FCC Deregulated Services rate base, revenues, or expenses than proposed by Staff or a different capital structure or cost rates than recommended by the Staff, it would be necessary to recalculate the effect of ACC Staff Adjustment C-17, unless such changes had an immaterial effect on the calculation of imputed revenues.

Q. Are you recommending that the Company not continue to provide these services?

A. No. The purpose underlying the Staff's recommendation is to ensure that regulated ratepayers do not fund the earnings deficiency resulting from the Company's decision to provision the FCC Deregulated Services. If USWC desires to provide these various services in this manner, the Staff is not seeking to interfere with that management discretion.

USWC's Above-The-Line Rationale

Q. Why has USWC proposed to include the earnings deficiency associated with these FCC deregulated services above-the-line for ratemaking purposes?

A. Since USWC's direct testimony does not specifically discuss or reference its position on this issue, a series of data requests were submitted to explore the rationale for the Company's proposed treatment. Generally, USWC has taken the position that these services are intrastate regulated services which must be included above-the-line for intrastate ratemaking purposes, in the absence of specific ACC findings that serve to deregulate such services. The following

excerpts from USWC discovery responses provide further rationale for the Company's position:

- **UTI 3-19**: The ACC regulates all FCC deregulated products with the exception of Interstate Billing & Collection. Additionally payphone and wireless were premptively [sic] deregulated by the FCC and the Telecommunications Act of 1996.

- **UTI 14-14**: USWC refers to Part V, paragraph A5 of ACC Decision 58927, indicating that the Commission continues to regulate certain products that the FCC has deregulated. Further, in Decision 58927, the Commission recognized the confusion in this area and ordered a separate proceeding to further investigate how to handle services deregulated by the FCC. USWC correctly observed that no such proceeding has been undertaken.

- **UTI 14-15**: U S WEST favors State deregulation of FCC deregulated products. However, in the current proceeding, the Company has chosen not to contest the past practice of the Arizona Commission to include these items in the revenue requirement determination.

- **UTI 14-18**: ACC Decision No. 58927 attempted to address the confusion around this issue by directing that a proceeding be instituted for the purpose of investigation how to handle FCC deregulated services in Arizona. However, no such proceeding has ever taken place.

- **UTI 24-8**: All USWC rationale for the inclusion of the FCC deregulated services above-the-line for Arizona intrastate ratemaking purposes was provided in the response to UTI 14-14, UTI 14-15 and UTI 14-18. No other support exists for the Company's proposed ratemaking treatment.

These USWC discovery responses essentially contend that the Commission has previously included the FCC Deregulated Services above-the-line for intrastate ratemaking purposes – a practice the Company decided to not contest in this proceeding. ACC Decision 58927 and the Company's position on this issue will be addressed in a following subsection.

Products and Services

Q. Could you briefly identify the various products and services which are included in the category of FCC deregulated services that are at issue in this proceeding?

A. Yes. The following table briefly lists the general FCC deregulated product categories that USWC has proposed to include in the intrastate ratemaking process, as part of its update filing:

- Protocol Conversion
- Customer Telecom Services
- Information Services (Enhanced Fax, E-911)
- Temporary Cellular Service
- Account Recording
- Buyer's Advantage
- Alarm Services
- Electronic Directory Assistance
- Information Storage Forward and Retrieval System (Voice Messaging)
- Planning for Nonregulated Services
- Joint Marketing

Sources: Data Request Nos. UTI 1-15 and Confidential UTI 42-6.

Q. Is USWC losing money on the FCC deregulated services offered in Arizona?

A. Yes. This fact is evident from the financial data supplied in the confidential responses to Data Request Nos. UTI 3-19, UTI 20-27 and UTI 42-6 as well as the simple admission provided in response to RUCO 4-25.

In the aggregate, the thirteen (13) FCC deregulated service categories that USWC has proposed to include above-the-line for ratemaking purposes operated at a net loss during the test year. Comparing the Company's original filing with the test year update, the net loss and rate base investment USWC has proposed to include above-the-line has declined. However, these services continue to be provided at a loss.

In contrast, [redacted] is the only FCC deregulated service category that generated significant positive income during the test year, thereby minimizing the net loss from all other FCC Deregulated Services. However, the Company has filed a petition with the ACC to deregulate this service in the State of Arizona. Absent the positive earnings generated by this

service, the revenue imputation amount presented on ACC Staff Adjustment C-17 would be substantially larger.

Q. What steps has USWC undertaken to ensure that the prices charged for other regulated telephone services do not subsidize the losses from the Company's FCC deregulated lines of business?

A. Other than the possibility of State deregulation, USWC has not identified any steps that it has taken to avoid cross-subsidization from its intrastate regulated telephone operations. USWC responded to such a question posed by Data Request No. RUCO 4-25 by simply referencing to its earlier responses to UTI 14-14(a) and UTI 14-15(a) as well as RUCO 4-24. Interestingly, Data Request No. UTI 14-14 refers to the ACC's decision to continue to regulate these FCC deregulated services in the Company's last Arizona rate case, while UTI 14-15 conveys USWC's preference for State deregulation.

In responding to the inquiry by RUCO 4-24(a) about the steps taken by USWC to protect against cross-subsidies of its payphone and wireless lines of business (preemptively deregulated by the FCC) by regulated telephone services, the Company surprisingly states that it follows Part 64 accounting rules, which prevent cross subsidization. As I indicated previously, USWC has not proposed to include these preemptively deregulated services above-the-line for Arizona ratemaking purposes. However, the Company has chosen to ignore the Part 64 rules, designed to prevent cross subsidization, for all other FCC deregulated services by reflecting the aggregate losses experienced by those services and related net investments above-the-line without any revenue imputation – contrary to the ACC's order in USWC's last Arizona rate case.

Q. Why do you believe that revenue imputation is the appropriate response to the Company's request to include the losses from the FCC deregulated services above-the-line?

A. There are several reasons why I believe that full revenue imputation proposal offered by the ACC Staff is the only rational approach to this issue.

First, USWC has discretion over the pricing of these services or whether to seek price increases for other services still provided pursuant to tariffs filed with the ACC. If the Company believes that deregulated product revenues are unacceptably insufficient to cover the recorded cost of a service or group of services, the appropriate response would be for the Company to either decrease costs or increase the price charged – not shift responsibility for the losses incurred to USWC's intrastate customers taking regulated service. To the extent that USWC exercises discretion over the pricing of its FCC deregulated services, it should be shareholders, not ratepayers, who are accountable for the losses from such operations.

Second, USWC can (and has) significantly increase(d) the prices charged for certain FCC deregulated services, while reducing or restructuring the prices charged for others. In doing so, the operating loss recorded during the test year could change and not be representative of ongoing conditions. The combination of post-test year price increases <u>and</u> Commission adoption of USWC's above-the-line recommendation could result in the double-recovery of a portion of the losses experienced by USWC on its FCC deregulated services. In other words, the test year losses could be recovered through: (a) higher post-test year prices charged for the FCC deregulated services and (b) the increased revenue requirement borne by regulated customers due to the adoption of USWC's above-the-line recommendation.

Third, USWC may petition the ACC at any time seeking the State deregulation of any (or all) FCC deregulated products/services – comparable to the petition currently pending before the Commission. In the event that the Commission adopts USWC's above-the-line recommendation in the rate case and then subsequently authorizes the State deregulation of one or more of those FCC deregulated services, the tariff rates charged to the customers of

USWC's intrastate regulated services will subsidize the operations of those Arizona services explicitly deregulated by the Commission as a direct result of allowing recovery of related losses above-the-line – absent downward rate adjustments outside the context of a rate case.

Fourth, USWC may choose to provision financially promising FCC deregulated services through a separate affiliate, rather than by USWC pursuant to Part 64 rules. This could result in all FCC deregulated services that are "losing" money being provisioned by USWC and included above-the-line for ratemaking purposes, while potentially profitable FCC deregulated services could be provisioned by a separate affiliate and insulated from USWC's proposed above-the-line treatment. Under such a scenario, USWC's above-the-line recommendation without revenue imputation would result in the Company's regulated customers providing direct subsidies to the FCC deregulated services, through higher regulated rates.

Fifth, FCC Part 64 [47 CFR 64.901] requires carriers, such as USWC, to separate their regulated costs from nonregulated costs using the attributable method of cost allocation. Part 64, which resulted from FCC orders in CC Docket No. 86-111, established procedures intended to protect interstate regulated operations from cross-subsidizing the nonregulated activities of the telecommunications industry. All nonregulated revenues and costs, consistent with Part 64, are removed from a carrier's operating results prior to the jurisdictional separation of the remaining regulated costs between interstate and intrastate operations. In my opinion, the Company's above-the-line ratemaking proposal has the effect of shifting 100% of the cross-subsidy to those customers subscribing to USWC's Arizona <u>intrastate</u> regulated services. I do not believe that such a shift in cost responsibility is the appropriate or intended result of the FCC's actions to protect <u>interstate</u> regulated services.

Q. Would it be possible to achieve a result comparable to above-the-line imputation by simply moving the FCC deregulated services below-the-line?

A. Yes. The revenue requirement impact of these two alternatives would be identical. However, I have not proposed an adjustment moving the FCC deregulated services below-the-line out of concern whether Commission adoption of such treatment could possibly be construed as the intrastate deregulation of those individual services. The Commission may wish to investigate through a separate proceeding the form or extent of regulatory oversight it wishes to exercise on any or all of these services.

Q. Have you conducted any legal research on that concern?

A. No. I am not an attorney and have not researched this issue from a legal perspective. However, it is my opinion that if any of the FCC deregulated services were to be deregulated by this Commission such action should occur through a docket specifically focused on the policy considerations of deregulation. I do not believe that a deregulatory action should simply be implied from a Commission rate order based, in part, on maintaining FCC deregulated services as below-the-line activities for intrastate ratemaking purposes to protect against cross-subsidy concerns. If the Commission were to conclude that below-the-line treatment would not convey an approval of State deregulation of these services, the Commission would then be able to simply choose between the two identical revenue requirement alternatives (i.e., above-the-line with revenue imputation or below-the-line).

<u>ACC Decision 58927, Docket No. E-1051-93-183</u>

Q. Are you familiar with that portion of ACC Decision 58927 which addresses the issue identified as FCC Deregulated Services?

A. Yes. I sponsored testimony on behalf of the ACC Staff on that issue. The Commission discussed the FCC deregulated services issue at pages 21-23 of ACC Decision 58927, including the following excerpts:

> ...Prior to FCC deregulation, these services were subject to the separation process. As a result of deregulation, the FCC has ruled that the services must be excluded from

> interstate costs and ratemaking. In this case, U S West has proposed to include all of the revenues, expenses and investment associated with its FCC deregulated services above-the-line for intrastate ratemaking purposes. According to the Company, the prices for these services are market based but do not cover their fully distributed costs.
>
> According to Staff, interstate deregulation should not by itself increase expenses to the intrastate jurisdiction. The services in question have expenses of approximately $7 million more than the associated revenues. Hence, the Company's proposal will result in other Arizona customers bearing the burden of the $7 million deficiency....As part of its case, the Company requested a $5,356,330 increase in revenues for inside wire charges. Staff concurred with the Company's proposed increase as part of its overall rate design in the case. Staff then imputed additional revenues of $1,662,000 to offset the remaining deficiency for the FCC deregulated services.
> [ACC Decision 58927, p. 21-22]

With the exception of the Payphone and Wireless services preemptively deregulated by the FCC, USWC's recommendation in the current proceeding has not changed from its position in the last rate case. The Company has once again proposed to include the net loss and rate base investment associated with the remaining FCC deregulated services above-the-line for intrastate ratemaking purposes. Except for changes in the dollar values contained in the above excerpts, the summary of this issue from the last Arizona rate case continues to apply today.

Q. Did ACC Decision 58927 adopt the Staff's revenue imputation proposal?

A. The Commission did adopt the concept of revenue imputation, but not the full amount recommended by the Staff. The following discussion appears at page 22 of Decision 58927:

> ...As to the remaining revenue deficiency for the FCC deregulated services in the amount of $1,662,000 we concur with Staff that interstate deregulation should not by itself increase expenses to the intrastate jurisdiction. On the other hand, we don't find Staff's method of simply imputing revenues to offset the entire deficiency provides an overall just result either. The fact that both the Company and Staff have recommended a separate proceeding to further investigate how to handle services deregulated by the FCC indicated the confusion in this area. Accordingly, we will order such an investigation to be part of the current generic investigation into competition in telecommunications services (Docket No. U-000-93-259). In addition, in order to

> recognize that neither the interstate nor intrastate jurisdictions should bear the entire deficiency of the deregulated services, we will approve 50 percent of the Staff's recommended imputed revenues or $831,000.
> [ACC Decision 58927, p. 22-23]

Interestingly, the Company has now chosen to not contest the Commission's inclusion of the FCC deregulated services above-the-line, but continues to argue against the imputation of any additional revenues.

Q. Has the Staff proposed to limit its revenue imputation to only 50% of the deficiency, as adopted by the Commission in the last rate case?

A. No. In the last rate case, the Staff believed that the correct remedy for the above-the-line ratemaking treatment was full revenue imputation. Based on the information gathered through discovery in the current proceeding, the Staff is even more convinced today that the full imputation recommendation was and still is the proper remedy. I continue to believe that interstate deregulation should not, by itself, increase costs to the intrastate jurisdiction.

Revenue Imputation

Q. Could you describe your use of the phrase "revenue imputation" as it applies to FCC deregulated services?

A. Yes. USWC has proposed to include the net operating loss and the related rate base investment for these FCC deregulated services above-the-line for intrastate ratemaking purposes. As used in this context, the concept of "revenue imputation" refers to the recognition of sufficient additional revenues for ratemaking purposes so that, in the aggregate, the FCC deregulated services will earn the same overall return on investment that the ACC ultimately adopts for USWC's intrastate regulated services. By imputing additional revenues, USWC's Arizona regulated customers will not be required to subsidize the earnings deficiency experienced by the Company's FCC deregulated services.

If the ACC were to determine that, for example, USWC should be allowed to earn a return on rate base of 10% (i.e., the weighted cost of capital), the Staff's recommendation would impute additional revenues sufficient to result in the FCC deregulated services achieving the same 10% return on investment.

Q. By proposing a "revenue imputation" adjustment, are you suggesting that USWC increase the prices charged for its FCC deregulated services to collect those additional revenues from the customers subscribing to those services?

A. No. I am not suggesting that USWC should change its method or approach to the pricing of its FCC deregulated services. By recommending the imputation of additional revenues, I am suggesting that those customers subscribing to USWC's intrastate regulated services should <u>not</u> be required to subsidize the Company's FCC deregulated offerings.

Q. In ACC Decision 58927, the Commission adopted 50% of the Staff's revenue imputation adjustment. Could you please summarize the revenue requirement effect of the Company's above-the-line proposal in the current proceeding and compare that effect with the issue presented to the Commission in USWC's last Arizona rate case?

A. Yes. During the test year in the last rate case, USWC's FCC deregulated services experienced a revenue deficiency of approximately $7 million. Because USWC had proposed to increase its inside wire charges by $5.4 million as part of its overall rate design in that case, the Staff's revenue imputation totaled $1,662,000 to offset the remaining deficiency for the FCC deregulated services. However, the ACC only adopted 50% of the imputation, or $831,000. [ACC Decision 58927, p. 21-23]

In comparison, Staff Adjustment No. C-17 has the effect of imputing additional revenues of approximately $3.5 million. Obviously, the value of the imputation adjustment has more than doubled since USWC's last Arizona rate case. I believe that any imputation of less than 100%

would be a disservice to those Arizona customers subscribing to the Company's intrastate regulated services.

Q. Has USWC proposed to increase the prices charged for any of the FCC deregulated services in the current proceeding in order to decrease or eliminate the net operating losses experienced by these services during the test year?

A. No. As indicated in the response to UTI 16-7(d), USWC has not proposed price changes to any of the FCC deregulated services in the pending rate proceeding – in contrast to the inside wire increases proposed by USWC in the last rate case. However, the Company has already increased the prices charged for the following FCC Deregulated Services during the 1999 test year:

Service Category	Effective Date
Enhanced Fax – Fax Power	4/1/99
Premises Services:	1/1/99
Business Unistar Business Trouble Isolation Business Time & Materials Line-Backer Line-Backer Plus Wire Maintenance	

Source: Data Request No. UTI 16-5.

Q. In the response to UTI 3-19, the Company has represented that the ACC regulates all FCC deregulated products – except for interstate Billing & Collection and those services which have been preemptively deregulated by the FCC. Do you have any comments on the conceptual characteristics of regulated services?

A. Yes. In my opinion, there are several characteristics which should reasonably be expected to apply to a regulated product or service:

- Product (or service) prices would be supported by tariffs, schedules, price lists or contracts filed with and approved by the Commission.
- Under flexible pricing options, the Commission would at least set minimum price floors, but could also set maximum prices and oversee the frequency and/or degree of price changes – due to cross-subsidization concerns.
- The Commission and/or the Commission Staff would be notified of and possibly participate in resolving customer billing, service quality and/or service provisioning complaints.
- The Commission would be notified of and/or approve the introduction or termination of individual product/service offerings.
- Commission authority would be sought as to whether a new service would be provisioned by USWC pursuant to Part 64 accounting rules or by a separate subsidiary or fully deregulated for intrastate purposes – to mitigate cross subsidization concerns.

Depending on the degree of authority conferred by the applicable statutes or constitutional provisions, the ACC could have broad latitude in deciding how closely it desires to oversee the FCC deregulated services allegedly "regulated" by the Commission. For comparison purposes, USWC has provided the following information through Staff discovery regarding the ACC's past practice of "regulating" the FCC deregulated services:

- Except for Premises Services, the ACC has not ordered USWC to submit pricing bands/ ranges, price lists or notices of price changes to either the Commission or the ACC Staff. [UTI 16-5 and UTI 16-8]
- Historically, the ACC has not directly regulated service quality in connection with USWC's FCC deregulated services. [UTI 20-31]
- USWC does not have any ongoing contact with the Commission or ACC Staff representatives regarding customer issues with service quality, product pricing, billing and/or service provisioning as it relates specifically to USWC's FCC deregulated services. [UTI 24-10]

Q. Does USWC believe that any revenue imputation is appropriate for ratemaking purposes?

A. No. According to the response to RUCO 8-5, USWC holds the "...opinion that deregulated products are priced on a competitive basis and that the imputation of additional revenues to these products cannot be supported." Further, the response to RUCO 10-11 further disagrees

with the concept of revenue imputation, indicating that "the deregulated products are appropriately priced based on TSLRIC and competitive forces" and that "fully distributed cost, is not an appropriate basis for pricing."

Interestingly, USWC does not recognize that its own approach to quantifying overall revenue requirement in this proceeding relies on fully distributed cost (FDC) for pricing purposes, albeit not for the FCC deregulated services. Under the Company's proposal, the revenue deficiency attributable to the difference between FDC based costs and the prices charged for the FCC deregulated services have been recognized above-the-line and are residually included in the prices USWC proposes be charged to those customers subscribing to USWC's intrastate regulated services.

The FCC Cost Allocation Manual ("CAM") resulting from Part 64 emphasizes direct cost assignment and "...allocates common cost to the nonregulated sector but leaves it wholly to the business judgment of the company and to the market place to determine how the company recovers (or fails to recover) those costs." [Report and Order CC Docket No. 86-111 (or R&O 86-111), par. 115] Discretionary pricing flexibility, dependent on market conditions, provides little certainty of the ongoing losses (or profits) of the FCC deregulated services that USWC has proposed be absorbed by regulated ratepayers.

As outlined in the table presented earlier in my testimony, USWC currently offers a variety of products/services generally identified as FCC deregulated services. The remainder of this testimony section will briefly discuss certain other related topics in order to further illustrate why the Staff's revenue imputation proposal has merit and should be adopted by the ACC.

Voice Messaging Service

Q. The earlier excerpt from the response to UTI 14-15 indicates that U S WEST favors State deregulation of FCC deregulated products. Has USWC undertaken any initiatives or filed any pleadings to seek the explicit deregulation of individual FCC deregulated services in Arizona?

A. On September 25, 1998, USWC filed a petition with the ACC requesting the deregulation of its voice messaging service (VMS), a copy of which was provided to Utilitech by the ACC Staff. Other than VMS, USWC has not sought and currently has no plans to seek explicit State deregulation of any other FCC deregulated service in Arizona – at lease according to USWC's response to UTI 24-5.

Q. What is the status of USWC's petition to deregulate VMS?

A. It is my understanding that USWC's petition is currently pending further action. I am not aware of any steps taken by USWC, the Staff or the ACC subsequent to the filing of this petition.

Q. So, is it correct that USWC has proposed State deregulation of VMS in Arizona at the same time that it is recommending above-the-line treatment of VMS for intrastate ratemaking purposes?

A. Yes. The Company's Confidential response to Data Request No. UTI 42-6 indicated that, during the 1999 test year, VMS reported [redacted] and experienced [redacted], representing a significant improvement in financial condition from the net operating loss reported for the original test year ended June 1998. [See Data Request Nos. UTI 3-19 and UTI 20-27.] Consequently, USWC's proposed inclusion of VMS above-the-line for ratemaking purposes has the effect of [redacted] the overall revenue requirement otherwise generated by the remaining FCC Deregulated Services, even though the Company is seeking State deregulation of this service.

Tariffs and Pricing

Q. Does the ACC require USWC to file tariffs for any of the FCC deregulated services?

A. According to the response to UTI 14-17, the ACC has not required USWC to file and maintain tariffs on the various FCC deregulated services, with the exception of Inside Wire Maintenance and related charges. In addition, USWC's response to UTI 16-8 states:

> The Company is not required, pursuant to ACC order, to submit pricing bands / ranges, price lists, or notices of pricing changes to either the Arizona Commission or the ACC Staff relative to FCC Deregulated Services.
>
> USWC does not provide such information because the Commission has neither ordered nor requested USWC to do so.
> [Data Request No. UTI 16-8]

Q. Could you generally describe the tariffs USWC has filed with the ACC for Inside Wire Maintenance and related charges?

A. USWC's inside wire services are "flexibly priced." While Commission rules require USWC to price all service above TSLRIC, there are no ACC rules which establish a procedure for setting maximum rates. Since January 1997, USWC has changed the price of Inside Wire Maintenance on three separate occasions – November 1, 1997; January 1, 1998; and January 1, 1999. [Data Request Nos. UTI 14-14, UTI 16-5 and RUCO 5-12]

Q. Do you have any estimates of the revenue effect of these three inside wire rate increases?

A. Yes. The following table summarizes USWC's Confidential responses to Data Request Nos. RUCO 5-12 and RUCO 10-1, which contain estimates of the annual revenue effect of each increase:

Wire Maintenance Rate Increases

Effective Date	Annual Revenue Estimate
November 1, 1997	[redacted]
January 1, 1998	[redacted]
January 1, 1999	[redacted]
Total	[redacted]

Fortunately, each of these changes have been in effect for the entire updated test year (i.e., calendar year 1999), thereby avoiding any need to annualize the effect of these increases. However, the existence of this pattern of changing the rates charged for the FCC Deregulated Services outside the context of a rate case underscores the need for Staff's proposed imputation adjustment.

If the test year net loss for the FCC Deregulated Services is recognized above-the-line for ratemaking purposes and the Company continues to increase the prices for such services subsequent to the test year, it is possible that such increases could shift the net operating loss experienced during the test year to a positive net operating income.

Accounting for FCC Deregulated Services

Q. You previously referred to the FCC's accounting for these deregulated services. Could you briefly explain the background of this accounting?

A. Yes. In April 1986, the FCC issued a Notice of Proposed Rulemaking concerning the methods of separating the costs of regulated telephone service from the costs of the nonregulated or deregulated activities of telephone companies and their affiliates. In a REPORT AND ORDER issued in CC Docket No. 86-111 [released February 6, 1987], the FCC adopted a fully distributed costing method which emphasized direct assignment based on cost causation,

required the development of Cost Allocation Manuals by the Bell operating companies, and segregated the costs of nonregulated services from the regulated costs subject to jurisdictional separations. The following excerpt appears in the introduction section of the REPORT AND ORDER in CC Docket No. 86-111:

> We proposed to develop a system of accounting separation that would inhibit carriers from imposing on ratepayers for regulated interstate services the costs and risks of nonregulated ventures. Our ultimate, statutory goal was to promote just and reasonable rates for services in the interstate jurisdiction. [footnote omitted] We tentatively concluded that, to achieve our purposes, it would be necessary to deter cost shifting both in the form of misallocation of joint and common costs and in the form of improper intracorporate transfer pricing. In this Order we affirm that conclusion by adopting (1) cost allocation standards and, for certain carriers, a requirement that a cost allocation manual be filed with this Commission; (2) rules for recording transactions between regulated telephone companies and their corporate affiliates, and (3) accounting procedures, audit requirements, and other implementation and enforcement mechanisms.
> [R&O 86-111, par. 1]

In the introduction to the U S WEST Cost Allocation Manual provided in response to Data Request No. UTI 1-15, the Company provided the following description of this allocation process implemented by the FCC:

> In its Joint Cost Order, the Commission [FCC] established a mechanism for separating the costs of providing regulated telephone service from the costs of providing Nonregulated products and services. The "primary purpose" behind the establishment of this mechanism was to "protect.. ratepayers from unjust and unreasonable interstate rates[.]" Joint Cost Order, 2 F.C.C. 2d at 1303. The Commission noted the necessity of "guarding against cross-subsidy of Nonregulated ventures by Regulated services, and that cross-subsidy can result either from the misallocation of common costs or from improper intracorporate transfer pricing."
> [Data Request No. UTI 1-15]

Q. Could you explain what is meant by a service being "subsidized" by other services?

A. It is my opinion that a subsidy or cross-subsidy occurs in situations in which one or more services derive benefits from other services without assuming adequate responsibility for the associated costs. Under residual pricing, the failure of a service to assume adequate cost responsibility can result in the shifting of costs to other services which, in turn, inappropriately assume responsibility for providing a subsidy, absent specific regulatory treatment to provide otherwise.

Q. Would the above-the-line recognition of the FCC deregulated services, as proposed by USWC, constitute a cross-subsidy of such services by the balance of the Company's Arizona intrastate regulated services?

A. Yes. In my opinion, the imputation of additional revenues as proposed by the Staff will protect against this cross-subsidy.

FCC DEREG – SEPARATIONS ADJUSTMENT

Q. Please describe ACC Staff Adjustments B-7 and C-18.

A. As a direct result of USWC's proposal to include the FCC Deregulated Services above-the-line for ratemaking purposes, the Company calculated higher composite, intrastate separation factors for use in allocating test year adjustments. These higher separation factors have been used by the Company and the Staff to compute the intrastate share of the individual adjustments posted to rate base and operating income. ACC Staff Adjustments B-7 and C-18 correct the intrastate separation of those adjustments to reflect the lower separation factors resulting from the exclusion of the FCC deregulated operations from the development of jurisdictional separations.

Q. Why are these adjustments necessary?

A. Because USWC has chosen to directly assign 100% of the revenues, expenses and net investment of certain FCC Deregulated Services to its Arizona intrastate operations, the composite separations factors computed and applied by the Company has the effect of over-allocating individual ratemaking adjustments to intrastate operations. These ACC Staff Adjustments B-7 and C-18 are necessary in order to correct this over-allocation.

Ultimately, the Commission will decide how to treat the FCC Deregulated Services for ratemaking purposes. If the Commission agrees with the Staff's FCC Deregulated Services revenue imputation approach or simply moves such services below-the-line, then ACC Staff Adjustments B-7 and C-18 are necessary to reflect the revised separation effect on all other revenue requirement adjustments.

However, the quantification of ACC Staff Adjustments B-7 and C-18 assume that the Commission would adopt all adjustments proposed by the Company and the Staff. In the event

that the Commission ultimately rejects certain adjustments or adopts revisions to other adjustments, it would be necessary to recalculate ACC Staff Adjustments B-7 and C-18 for consistency with the Commission findings.

Q. ACC Staff Adjustment C-18 decreases net operating income in excess of $2 million. Why does the change in composite intrastate separation factors have such a large impact on net operating income?

A. ACC Staff Adjustment C-18 was determined by applying the change in composite intrastate separation factors to the total adjustments proposed by USWC and the ACC Staff. As the net effect of the various adjustments grows larger in amount (either positively or negatively), the value of the separations change also increases.

For example, ACC Staff Adjustment C-13 recommends the capitalization of internal-use-software (SOP 98-1). Because of the magnitude of the decrease to expense associated with this adjustment, a decrease in the composite intrastate separation factor translates into a smaller allocation of the SOP 98-1 expense reduction to intrastate operations by increasing ACC Staff Adjustment C-18.

This example illustrates the interaction between the ratemaking adjustments and the jurisdictional separations process. For this reason, ACC Staff Adjustments B-7 and C-18 should be updated to reflect all applicable adjustments ultimately adopted by the Commission.

PROPERTY TAX CORRECTION

Q. Please describe ACC Staff Adjustment C-24.

A. ACC Staff Adjustment C-24 represents the correction required to the Company's proposed EOP property tax annualization included in USWC Adjustment P-01.

Q. How do the calculations underlying ACC Staff Adjustment C-24 compare the Company's annualization approach?

A. The two computational methods are very similar. USWC based its annualization on the 1999 final full combined cash value (not December 1999 times twelve), as determined by the Arizona Department of Revenue for property tax assessment purposes. USWC then applied an assessment ratio and average tax rate to determine the Arizona annualized property tax expense, which was then allocated to the Company's intrastate operations.

In the confidential response to Data Request No. UTI 45-11, the Company indicated that its annualization had used an incorrect weighted assessment ratio. ACC Staff Adjustment C-24 uses the correct assessment ratio.

Q. Are there any other differences between the Staff and Company annualization adjustments?

A. USWC's annualization calculation employs an unexplained intrastate separation factor of 71.77%. However, the Company's update rate filing is based on a composite intrastate factor of 72.49% for property and other tax expense, which is primarily property tax expense. ACC Staff Adjustment C-24 is calculated using the higher test year intrastate separation factor of 72.49%. This Staff adjustment then compares the intrastate portion of the revised annualized level to the amount of property tax expense included in the Company's update filing, plus the out-of-period correction to property tax expense discussed in ACC Staff Adjustment C-25.

TAX TRUE-UP ADJUSTMENTS

Q. What is the purpose of ACC Staff Adjustments C-25 and C-26?

A. During the 1999 test year, USWC recorded certain journal entries that had the effect of correcting or truing-up certain accruals for property and other taxes (excluding income taxes) originally booked in calendar years 1994 through 1997. In addition, the Company also recorded true-up entries in January and February 2000 that related to calendar year 1999. ACC Staff Adjustment C-25 recognizes the test year effect of reversing the prior period entries and including the post-test year true-up entries for these other tax accounts.

ACC Staff Adjustment C-26 is similar to ACC Staff Adjustment C-25, but relates to income tax expense rather than other tax expense items. During the 1999 test year, USWC recorded certain journal entries that had the effect of correcting or truing-up certain income tax accruals originally booked during calendar years 1994 and 1998. This Staff adjustment recognizes the test year effect of reversing these true-up accounting entries related to prior periods.

Other Tax Accruals

Q. How did you determine that this adjustment was necessary?

A. Data Request No. UTI 43-20 sought the identification any adjustments that would be necessary to correct or normalize test year operating results, including the elimination of out-of-period and/or abnormal transactions, in a manner consistent with USWC's original filing. The Company's response identified and quantified an adjustment in other tax expense through Attachment E. However, in response to Data Request No. UTI 59-16, the Company supplied a revised quantification that further corrected Attachment E. ACC Staff Adjustment C-25 is based on the response to Data Request No. UTI 59-16.

Q. Is this adjusted necessary, regardless of the Commission's adoption of the Company's EOP or Staff's annualization adjustments?

A. Yes. Both the Company and Staff have proposed adjustments to annualize property tax expense (see USWC Adjustment P-01 and ACC Staff Adjustment C-24). So, in theory, the property tax portion of this adjustment could be avoided if the Commission adopted the Company's annualization without Staff's correction. However, ACC Staff Adjustment C-24 was assembled in a manner which corrects the Company's annualization of property tax expense and also considers the effect of the correction to property tax expense included within ACC Staff Adjustment C-25. So, in Staff's presentation, the property tax component of ACC Staff Adjustment C-25 is both necessary and appropriate.

With regard to the "other" tax corrections, the Company's response to Data Request No. UTI 59-17 confirms the Company's agreement that the remaining out-of-period adjustments are necessary, as USWC's Adjustment P-01 does not annualize Accounts 7240.2 through 7240.9. The calculations set forth on ACC Staff Adjustment C-25 provide further information concerning these tax accounts.

Income Tax Accruals

Q. What tax accruals are the subject of ACC Staff Adjustment C-26?

A. In November and June of 1999, the subject journal entries adjusted, or corrected, federal and state/ local income tax expense associated with periods prior to the test year.

Q. How did you determine that this adjustment was necessary?

A. As indicated previously, Data Request No. UTI 43-20 requested the Company to identify the various adjustments that would be necessary to correct or normalize test year operating results, including the elimination of out-of-period and/or abnormal transactions, in a manner consistent

with USWC's original filing. The Company's response provided an Attachment H, which documented and quantified this adjustment.

Q. Is this adjustment necessary, regardless of the Commission's adoption of the Company's EOP annualization adjustments?

A. Yes. The Company Adjustment P-01 does not adjust recorded income tax expense in a manner that would result in the elimination of these out-of-period transactions. Consequently, this adjustment should be recognized for ratemaking purposes irrespective of the test year annualization approach adopted by the Commission.

Q. Does the Company concur with that assessment?

A. Yes. USWC has expressed its concurrence in the response to Data Request No. UTI 59-12.

IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP

Q. Please briefly explain the nature of ACC Staff Adjustment C-27.

A. ACC Staff Adjustment C-27 excludes test year expenses related to non-product related corporate image advertising as well as the test year cost of USWC's sports sponsorships (i.e., the Olympic Games, Diamondbacks and Phoenix Suns) from the determination of overall revenue requirement.

Q. Could you describe image advertising?

A. Image advertising refers to forms of non-product related advertising activities intended to stimulate goodwill, build name recognition or create a favorable public image of USWC and its family of products and services. Examples of image or non-product advertising would include sponsoring:

- an event when the Company's name or logotype is prominently displayed in programs, brochures, banners, etc.;
- the publication cost of pamphlets, brochures, or other literature that prominently displays the Company's name or logotype; or
- television or radio programs or generic advertisements that identify USWC as a sponsor.

USWC's "Life's Better Here" brand campaign is a specific example of non-product advertising designed to build brand awareness and corporate recognition. Olympic and other sports sponsorships also serve to improve the public's awareness of U S WEST.

Q. How does USWC account for the costs that you propose to disallow?

A. USWC generally records the cost of these types of image building efforts in Account 6722, External Relations Expense. However, a very small portion of the test year cost of Olympic sponsorship has been recorded in Account 6535 (Engineering Expense), Account 6611 (Product Management Expense) and Account 6612 (Sales Expense).

Q. What is the amount of the proposed disallowance of image building costs?

A. Including both image advertising and sports sponsorships, the Staff's Arizona intrastate adjustment would decrease operating expense by about [redacted] [See USWC responses to Data Request Nos. UTI 64-22, UTI 65-8 and RUCO 28-14.]

Q. Has the Commission previously disallowed image advertising costs?

A. Yes. At page 25 of his direct testimony, Company witness Redding recognizes that the Commission has disallowed image advertising in the past, but offers the following explanation for not proposing a similar disallowance:

> In a competitive environment a company's "brand" is an important segment of its competitive success. Because of these changed conditions I am not removing image advertising from the calculation of the revenue requirement.
> [Redding Direct, p.25]

During the 1999 test year, the focus of the Company's "brand" promotion concerned the image of U S WEST. However, with the consummation of the recent merger, Qwest is the surviving entity, not U S WEST.

Q. Was the U S WEST "brand" an important ingredient to the merger with Qwest?

A. Apparently so. The Company specifically discusses the value of the U S WEST brand to Qwest in response to Data Request No. UTI 62-7:

> The U S WEST brand is one of the foundations on which the merger with Qwest was predicated. It is a valuable name with a valuable heritage. The merger with Qwest builds on that for the future.
> [Data Request No. UTI 62-7]

In the context of the merger, the Company's response to Data Request No. UTI 62-6 seems to convey a somewhat different impression upon consummation of the merger:

> The Company's brand and identity strategy is a corporate-wide effort that is not unique to a particular segment of the business. Effective with the merger with Qwest, it focuses on the transition from the U S WEST brand to that of Qwest over a 90 day period. This includes changing building and vehicle signage, logos on customer bills and stationary, sponsorships, and similar activities. It focuses on the evolution of the company from a voice and data to an integrated voice, data and internet/broadband service provider. Documents in the company's possession associated with the underlying strategic decisions are highly proprietary, highly confidential and commercially sensitive. As such, they are not provided herewith.
> [Data Request No. UTI 62-6]

For a valuable "brand" that was one of the foundations on which the merger was predicated, Qwest seems intent to quickly and expeditiously cleanse the U S WEST name and logo from the surviving corporation's image – an image that U S WEST has spent millions of dollars to build and maintain.

Q. Why should the costs of such institutional/goodwill advertising be excluded from the determination of the Company's regulated rates?

A. In my opinion, the cost of this type of advertising should be excluded from the ratemaking process because ratepayers do not receive any direct tangible benefit from such advertising.

Q. Why might USWC decide to incur potentially unrecoverable image building costs, particularly in light of past regulatory decisions disallowing such costs?

A. U S WEST, now Qwest, is a diversified company serving fourteen western states and seeking growth into new markets. Because of the visibility of the Company's regulated telephone operations, it is possible for the Company to leverage its brand name and business reputation to benefit the entry into new markets or the introduction of new services. Image advertising and branding campaigns provide a controllable opportunity to get the corporate name, business reputation and logotype before the public and favorably position the Company for new opportunities. It is difficult to quantify any tangible benefits that consumers of the Company's

regulated services might receive. After all, the money spent on image advertising during 1999 was for U S WEST, not Qwest.

Q. Has the Company allocated the cost of its image advertising to its unregulated affiliates?

A. No. Several discovery requests have been submitted in order to evaluate whether and to what extent USWC's affiliates may have helped fund the costs of the U S WEST image advertising campaigns. The following excerpts address this subject:

- USWC does not assign or allocate the expenses incurred for brand advertising to any regulated products or business units. Some portion of the brand advertising expenses are assigned to Part 64 deregulated products. The brand advertising expenses are budgeted and funded on a corporate level. USWC's brand advertising expenses are not billed to any other affiliates.
  [Data Request No. UTI 7-15]

- USWC does not allocate or assign its non-product advertising costs to other companies. Each Company does their own non-product advertising.
  [Data Request No. UTI 15-15]

- Each of U S WEST's affiliates, e.g., U S WEST Advanced PCS and U S WEST DEX, do their own product line awareness, or brand advertising. This advertising includes the "U S WEST" name; therefore, it would be improper to allocate part of the U S WEST only brand advertising to these affiliates.
  [Data Request No. UTI 26-6]

- U S WEST DEX does not separately identify product vs. non-product specific advertising expense.

  U S WEST Wireless does some awareness campaigns, which would be considered brand-type advertising. There expenses are not tracked separately from their product advertising expenses.

  None of the other USW affiliates perform any non product specific advertising.
  [Data Request No. UTI 19-10]

Although U S WEST DEX and U S WEST Wireless may do some undisclosed level of brand-type advertising, it is possible that the Company's unregulated affiliates derive indirect benefits from USWC's past image advertising efforts without helping to fund the cost thereof.

Q. The response to Data Request No. UTI 7-15 indicated that a portion of the brand advertising expenses incurred by USWC are assigned to Part 64 deregulated products. Does ACC Staff Adjustment C-27 have the effect of eliminating the portion of image advertising costs attributed to the FCC Deregulated Services?

A. No. Staff Adjustment No. C-27 only reverses the image advertising and Olympic sponsorship costs associated with USWC's regulated Arizona intrastate operations. In a separate testimony section, I discuss the Staff's recommended treatment of FCC Deregulated Services which would incorporate these brand related costs.

Q. Has USWC contended that its customers receive benefits from image or brand advertising?

A. Yes. Mr. Redding also states:

> To the extent U S WEST is successful in promoting its brand and loyalty to that brand, it means lower losses to competition. To the extent the Company can retain customers, the less likely it is to suffer revenue shortfalls and have to come to this Commission for additional revenues. Image advertising is done by all of the Company's competitors and is a normal part of advertising in a competitive environment.
> [Redding Direct, p.25]

It is possible, but not proven, that USWC's more competitive services could indirectly benefit from image advertising. However, USWC has not demonstrated that promoting its imagery in a favorable light will influence growth in business or residence access lines or customer decisions to purchase other discretionary services such as call waiting. While individual customers might be receptive to and express awareness of the Company's branding efforts, this

type of image building is not cost free and does not directly support the development of new products or promote the sale of specific existing products.

Q. Has USWC incurred product-specific advertising costs in addition to the image advertising that Staff proposes to disallow?

A. Yes. USWC has incurred substantial product-specific advertising costs, which have been fully reflected in Staff's revenue requirement proposal. Over the past several years, the Company significantly increased its expenditures on regulated product advertising, as illustrated by the following graph:

CONFIDENTIAL GRAPH

Clearly, the Company's test year expenditures for product-related advertising are significant and have increased dramatically over the past several years. The following table further demonstrates the substantial product advertising amounts USWC has expended historically and the uncontested amounts recorded during the 1999 test year:

USWC-AZ
Product Advertising Expense
Regulated Operations

Year	Amount
1996	[redacted]
1997	[redacted]
1998	[redacted]
1999	[redacted]

Confidential UTI 11-16 & 60-4.

On a total State basis, the test year advertising expense recorded in Account 6613, Product Advertising, is approximately [redacted] on regulated products, which the Staff has not proposed to reduce or disallow.

Q. How does the Company's test year expenditures on image advertising compare to prior years?

A. According to the response to Data Request No. UTI 19-8, USWC did not have a brand advertising campaign prior to 1997. As indicated by the following graph, the Company has also substantially increased its expenditures on non-product image advertising since 1997.

CONFIDENTIAL GRAPH

In my opinion, the Staff's proposal to allow the significantly higher test year product advertising costs and disallow the image advertising costs reasonably balances the Company's need to market its products and get its name before the consuming public, without requiring ratepayers to fund unsupported levels of image advertising. It should be noted that this graph specifically applies to image advertising costs and does not include expenses incurred by the Company for the Olympic Games or other sports sponsorships.

Q. Should the Commission adopt your recommendation to disallow the image and brand advertising costs, is it possible that the Company might still be able to indirectly recover those costs?

A. Yes. In his direct testimony, Staff witness Brosch discusses the continued growth in revenues and margins realized by USWC in the State of Arizona. Under traditional regulation as well as some forms of alternative regulation, the Company retains all margin growth realized between rate case test years due to what is commonly identified as regulatory lag. So, to the extent that the Company's product advertising is successful in helping grow margins between rate cases, those additional margins will be retained by USWC and mitigate the disallowance of image advertising costs.

Q. Why do you believe that the cost of Olympic sponsorship represents a form of image advertising?

A. U S WEST (now Qwest) will present itself to the global community and enhance its public image through linkage with the Olympic games, much like non-product image advertising. Research results indicate that Olympic sponsorship bestows benefits important to sponsor companies. According to the forward to the "Olympic Market Research Analysis Report" supplied in response to Data Request No. UTI 26-10, "[p]ublic opinion of such companies is positive and sponsors derive highly prized image values and other commercial benefits."

The following excerpts from this same report further discuss the relationship between Olympic sponsorship and public opinion:

> **Sponsorship of the Olympic Games raises the public's opinion of the sponsoring company**
> Sponsorship of the Olympic Games has always been seen very favourably, and has not declined over the years - on average, around 30% of respondents feel more favourable towards a company because they are an Olympic sponsor. This means that Olympic sponsorship actually creates a positive impact for the companies involved among one-third of the population and offers quite a competitive point-of-difference.
>
> . . .
>
> Not only does Olympic sponsorship increase favourability towards the sponsoring company, but it also raises the public's opinion of that company. Almost one third of respondents in the 1996 nine country study said that their opinion of the sponsoring company was raised as a result of their Olympic sponsorship. Among spectators interviewed at the Atlanta Summer Games, this factor was even higher - 45% of spectators said that their opinion of the sponsoring companies was raised because they were associated with the Olympic Games.
>
> **Public Opinion of Olympic Sponsor Companies is positive**
> Olympic sponsorship bestows many positive attributes on the companies involved. They are perceived as being highly reputable (57% of respondents from the 1996 nine country study agreed) and leaders within their industries (59% agreement, 1996 nine country study). Olympic sponsor companies are also seen as being dedicated to excellence (53% agreement) and offering the highest quality products (46%). More importantly, this imagery has remained fairly consistent over the last eight years.
>
> . . .
>
> Almost eight in ten of the general public interviewed in the nine country study (1996) understood that the use of the Olympic Rings on product packaging or in advertising indicated that the company had paid money for the right to do so, and there is evidence to suggest that awareness among the general public of payment for acquisition of rights has been high for the last five years.
>
> . . .
>
> However, there is less agreement as to whether the rights acquisition has impacted on product price. Less than half of the general public agreed that the price was impacted

> by Olympic sponsorship, and again, this finding has been fairly stable over a five year period, or has in fact, declined.
> [Data Request No. UTI 26-10]

I do not question that Olympic sponsorship will enhance the public image of the Company. In my opinion, the issue instead focuses on whether regulated ratepayers should be required to fund the cost of sponsoring the Sydney Olympic Games. While the general public may be uncertain as to whether the cost of Olympic sponsorship serves to increase the price of a sponsor's products, there is no question that the Company seeks explicit ratemaking recovery of the Arizona allocated share of its sponsorship costs through the rates to be charged regulated customers – even though any favorable image enhancement may serve to benefit Qwest in unregulated markets.

Q. What quantifiable ratepayer "benefits" are expected to result from the use of the Olympic Rings in U S WEST advertising campaigns, which would not have occurred in the absence of such sponsorship?

A. This very question was posed to the Company through Data Request No. UTI 4-15(a). The Company's response to this question is reproduced below:

> The benefit ratepayers receive from U S WEST's Olympic sponsorship is a more competitive and financially healthy U S WEST. Market research supports that customers want to do business with Olympic sponsors and view these companies as leaders in their industries which offer high quality products and services. The Company's sponsorship was entered into for competitive purposes and for customer loyalty purposes.
> [Data Request No. UTI 4-15]

USWC did not provide any quantification of the economics of engaging in this form of image enhancement.

In contrast, the Company does undertake marketing effectiveness analyses to evaluate the relative benefits of specific consumer product marketing campaigns. [See USWC's response to UTI 11-21 and UTI 17-15.] Those analyses evaluate the economics of individual product campaigns by comparing incremental revenues with the related marketing costs. As indicated in the response to Data Request No. UTI 17-14, the marketing effectiveness analyses encompass product promotion costs, but do not consider "non-product brand marketing costs."

Q. You previously indicated that the Company was undertaking a variety of steps to replace the U S WEST name and logo with that of Qwest. Do these steps include a change in Olympic sponsorship so as to further remove U S WEST from public view?

A. Yes. According to the response to Data Request No. UTI 66-3, Qwest will not change the terms of the Olympic sponsorship agreement, but will change the name promotion to "Qwest" – in order to "be in the marketplace with one single brand."

Q. In your opinion, do other sports sponsorships represent a form of image advertising?

A. Yes. I believe that sports sponsorships should generally be considered a form of image advertising, comparable to the Olympic sponsorship costs. The level of costs incurred by the Company for sports sponsorships has also increased dramatically in recent years. On an Arizona intrastate basis, the confidential response to Data Request No. RUCO 2-24 indicated that USWC incurred [redacted] for the sponsorship of the Diamondbacks and Phoenix Suns during the test year encompassed by the Company's original filing (i.e., the twelve month period ended June 1998). In comparison, the Company's update to calendar 1999 contains [redacted] of intrastate sponsorship expense (confidential response to Data Request No. UTI 65-8). Using the Company's December 1999 times 12 annualization methodology, USWC has only sought to recover [redacted] (per UTI 65-8). ACC Staff Adjustment C-27 recommends the elimination of all sports sponsorship costs recorded during the test year.

1 Q. Do you believe that the Company should not engage in sports sponsorship activities such as
2 the Olympic Games, the Diamondbacks and the Phoenix Suns?
3 A. It is not my position that the Company should terminate this type of sponsorship activity.
4 Instead, I believe that ratepayers should not be required to fund such activities, particularly in
5 the absence of demonstrable ratepayer benefits. To the extent that ratepayers are not required
6 to fund these activities as involuntary contributors, the Company should be allowed to engage
7 in such sponsorships of its own choosing.

FAS87 PENSION ASSET

1 Q. What is the purpose of ACC Staff Adjustment B-3?

2 A. Staff Adjustment No. B-3 represents the elimination of the Company's proposal to include a
3 pension asset in rate base. Referring to USWC Adjustment P-04, the Company has proposed
4 to include a pension asset of $66,221,000 in rate base for intrastate ratemaking purposes.

5 Q. If USWC has proposed to include a $66.2 million pension asset in rate base, why does Staff
6 Adjustment No. B-3 remove only $42.3 million from rate base?

7 A. The amount shown on USWC Adjustment P-04 as the Company rate base allowance does not
8 recognize, or is shown gross of, the related deferred income tax reserves. While the deferred
9 income tax reserves are not included within, or netted against, the Company's specific pension
10 asset rate base adjustment, these amounts were nevertheless reflected in the quantification of
11 rate base through the deferred income tax reserves employed as a rate base offset. If the
12 Company's proforma pension asset adjustment is to be excluded from rate base, I believe that
13 the companion deferred income tax reserves should be similarly reversed.

14 **Pension Cost Accounting**

15 Q. Could you please describe the events or circumstances which gave rise to the recording of a
16 pension asset?

17 A. Yes. In December 1985, the Financial Accounting Standards Board (FASB) issued FAS87
18 concerning employers' accounting for pension costs. Although issued in 1985, FAS87 was first
19 effective for fiscal years beginning after December 15, 1986, which the Company adopted for
20 financial accounting purposes effective January 1, 1987.

21 Prior to FAS87, the amount of pension costs distributed to expense and capital accounts was
22 equal to the level of contributions actually made to the pension fund. It was only after the

adoption of FAS87 that pension costs expensed/capitalized and pension contributions began to diverge.

Q. Since the adoption of FAS87, has the company continued to record positive pension expense in its accounting records?

A. No. Beginning with the adoption of FAS87 in 1987, the Company began recording negative pension costs (a pension credit) instead of positive pension costs. It is several years' accumulation of this pension "credit" which has resulted in the pension asset the Company now seeks to include in rate base.

Q. How have negative pension costs resulted in a pension asset?

A. Pension costs are normally thought of as being positive (or an added cost) in determining a company's total cost of providing service. However, as implied by the reference, negative pension costs are actually recorded as a credit or a decrease to the appropriate expense and capital accounts, thereby resulting in a corresponding debit (or increase) to the pension asset account.

On a total State basis, the following table summarizes the annual pension credits to expense and capital accounts recorded by USWC since the adoption of FAS87:

Total Arizona – Net Pension Credits
(000's)

	Qualified Pension Credit				
Year	Expense	Capital	Total	NonQualified Expense	Net Pension Credits
1987	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1988	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1989	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1990	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1991	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1992	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1993	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1994	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1995	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1996	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1997	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1998	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1999	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	($101,004)	($12,525)	($113,529)	$9,152	($104,377)

Sources: USWC confidential responses to UTI 20-5 and UTI 46-13S1.

Q. Why do the net pension credits shown in the above table not tie to the $66.2 million pension asset that the Company has proposed to include in rate?

A. The above table reflects annual pension credits on a total Arizona basis, including the cost of the Company's non-qualified retirement plan. One major difference between the amounts included in this table (Total State) and the amount the Company has proposed to include in rate

base (Intrastate) is the jurisdictional separation process which apportions the pension costs between the interstate and intrastate jurisdictions. In addition, the response to Data Request No. UTI 54-4 indicates that, at least for 1999, the capitalized pension credit represents an estimate based on the percentage of payroll costs capitalized. In any event, I have not attempted to reconcile these amounts with the Company's rate base recommendation.

Staff Approach

Q. Could you briefly outline the rate base concept?

A. Yes. Rate base is commonly viewed as being comprised of net utility asset investments used to provide service to ratepayers, which have not yet been recovered from ratepayers. When utility investors provide the necessary funds to support these company investments, those amounts are generally included in rate base to allow the investors an opportunity to earn a return on invested capital. Similarly, funds advanced, reimbursed, or otherwise paid for by ratepayers are properly excluded from rate base.

With respect to the pension asset, the initial direct testimony of Company witness Redding (page 15) represents that its investors have effectively "contributed the cash" associated with the reduction in revenue requirements resulting from the inclusion of the pension credit in the ratemaking process – thereby justifying the inclusion of the pension asset in rate base.

Q. In your opinion has the existence of a pension credit resulted in a substantial decrease to the cost of service in each year since 1987?

A. No. For that to be the case, negative pension costs would need to have been included in the cost of service or somehow separately flowed through to customers "as recorded" each year since the adoption of FAS87. In my opinion, the Company needs to demonstrate that cumulative pension credits of at least $66.2 million (intrastate), from 1987 through the 1999 test year, have been flowed through to its ratepayers to support its pension asset request.

Q. Do you believe that ratepayers have received the benefit of these pension credits merely as a result of the Company recording the negative pension costs?

A. No. To the extent that the Company's rate base treatment is premised on the "as recorded" benefit concept, I disagree with that premise for several interrelated reasons. First, I do not believe that it is possible to accurately quantify the accumulated net pension recoveries from or benefits provided to ratepayers. In order to prepare such a calculation, I believe that it would be necessary to reconcile the amount of actual pension costs recovered from ratepayers with the amounts actually contributed to the pension fund since the establishment of the pension plan. Such a quantification would be significantly complicated by the fact that the level of pension costs charged to expense over the years does not necessarily equate to the amount of pension costs recovered from ratepayers (i.e., included in cost of service) or contributed to the pension plan.

Second, the Company's pension plan and pension accounting have existed for decades. By focusing on the accounting entries underlying the "pension credits the Company recorded in the late 80's and early 90's" that result in the pension asset balance, the Company has excluded from consideration a substantial portion of the history which underlies the pension fund, pension accounting and cost of service. Assuming that net recoveries from ratepayers can be accurately quantified, the Company appears to have inappropriately relied on its balance sheet accounting records for purposes of determining the amount that is includable in rate base. From a cost of service perspective, data provided by the Company for the period 1987 through 1999 does not appear to support the position that ratepayers have substantially benefitted from the pension credits, at the expense of the Company's investors, from a cost of service perspective.

Third, USWC has sought to include the entire pension asset balance in rate base even though the Company has not demonstrated that 100% of these benefits have been actually flowed

through to its ratepayers. Unless the Company can somehow demonstrate that the negative pension costs have unquestionably been flowed through to its customers, USWC's rate base proposal would charge ratepayers with a return on funds they never received -- thereby, unnecessarily benefitting Company investors.

Q. Why did you conclude that the Company inappropriately relied on its accounting records for purposes of determining the rate base allowance for pension credits?

A. In my opinion, the ratemaking treatment of pension credits, or negative pension costs, did not commence in 1987 with the adoption of the FAS87 and is not fully reflected in the Company's accounting records. In many situations, it may be possible to clearly point to an occurrence or event and establish whether ratepayers or investors have paid for or benefitted from a particular transaction. However, in this case, it is my opinion that the overall evidence does not support the Company's contention that investors have "contributed the cash required to fund this reduction in revenue requirements generated by the pension credits" in the amount of the $66.2 million (intrastate) included in rate base.

For ratepayers to have benefitted from the recording of negative pension costs, it is my opinion that the Company would have to allege that costs are recovered from ratepayers as recorded or that the ratepayers have benefitted through reduced revenue requirements to the detriment of its investors. I do not accept, nor do I believe that the Company can sustain either representation. The question of cost recovery with regard to negative pension expense has a substantial historical context which, if ignored, could lead to inappropriate conclusions.

Q. Please explain.

A. Prior to FAS87, the amount of pension costs charged to expense/capital accounts and contributed to the pension fund were equal. Subsequent to FAS87, the Company has recorded negative pension costs and made no further contributions to its pension fund. In order to

establish whether ratepayers have inappropriately benefitted to the investors detriment, neither the act of recording costs nor making contributions necessarily establish the pension cost amount that ratepayers have "invested" in or "benefitted" from through the cost of service.

Pension funding is basically determined from a comparison of pension plan assets with the expected pension liability. The pension plan assets are comprised of prior contributions to the fund plus the actual returns received on the plan assets. Once the plan assets exceed the expected liability and meet certain provisions of the Internal Revenue Code, the plan is considered overfunded and no further tax deductible contributions can be made. However, the plan assets have accumulated over a long period of time, not just the last few years.

Since the adoption of FAS87, the Company has recorded negative pension costs for all plan years, but one, primarily due to the pension fund's favorable investment experience. The annual returns on pension plan assets have ranged from about 13% to over 23% in nine (9) of the thirteen (13) years since the adoption of FAS87 [USWC responses to Data Request Nos. UTI 20-7 and UTI 47-5]. It is these "stellar" returns that have primarily contributed to the negative pension expense being recorded by the Company, in accordance with FAS87, since 1987.

In order to establish that ratepayers have benefitted to the investors' detriment, it is my opinion that the Company would need to clearly demonstrate that the amount of pension credits flowed through to USWC's Arizona intrastate customers equal or exceed the cumulative pension asset the Company has proposed to include in rate base. However, I do not believe that such a situation can be demonstrated with regard to this issue.

Q. How does this position differ from the Company's presentation on this issue?

A. Although the Company's allegation of ratepayer benefits will be discussed later in more detail, there are two major differences. First, USWC's filed evidence does not address or evaluate the value of pension credit benefits that customers are alleged to have received. Second, it appears that the Company has effectively assumed that the recording of negative pension costs equates to ratepayer benefits. While this theory has some limited application in situations where alternative forms of regulation are based on a sharing of earnings above predetermined thresholds, I do not believe that this process would apply to the Company's Arizona operations.

Q. In your opinion, has the Company taken the position with regard to these pension credits that ratepayers have benefitted at the expense of its investors?

A. Yes. However, I do not believe that ratepayers have thus far received substantial benefits that would justify the inclusion of a significant pension asset in rate base.

Q. Since the Company's adoption of FAS87 in 1987, how does the amount of pension costs included in cost of service compare to the pension credits recorded by the Company?

A. While the Company seems to argue that costs or benefits are recovered from or provided to ratepayers when the expense is booked in order to support including the pension asset in rate base, the amount of pension costs actually recorded by the Company varies significantly from year to year, as previously shown. Although I do not believe that it is possible to accurately quantify the accumulated net pension recoveries from or benefits provided to ratepayers, I have prepared a series of calculations which attempt to estimate the level of pension credit benefits ratepayers might have received since the adoption of FAS87.

Relying on USWC responses to Staff/UTI discovery in Docket E-1051-93-183 (Staff Data Request Nos. 191, 386-388) and Data Request No. UTI 20-5 in the pending proceeding, the following table was assembled to show the amount of pension credits allegedly flowed through

1 to ratepayers in each proceeding immediately preceding or following USWC's adoption of
2 FAS87.

Arizona Intrastate – Net Pension Expense
(000's)

ACC Docket	Order Date		Ratemaking Pension Expense
84-100	1/10/86		$12,200
88-146	3/01/89	(a)	(600)
91-004	7/15/91	(a)	(9,900)
93-183	1/03/95		(9,000)

Sources: USWC response to UTI 20-5.
Note (a): Resolved by negotiated settlement.

On its face, this table would seem to indicate that the rates in effect since early1989 have
4 resulted in pension credits being flowed through to ratepayers. However, after further review
5 and analysis, I do not believe that this information demonstrates that ratepayers have materially
6 benefitted from the pension credits.

7 Q. Please explain.
8 A. Appendix SCC-1 represents an analysis of the amount of pension expense explicitly included
9 in the Company's rates, starting with the rate case immediately preceding the adoption of
10 FAS87. Recognizing that two of the rate cases before this Commission in the late 1980's -
11 early 1990's (i.e., E-1051-88-146 and E-1051-91-004) were resolved by negotiated settlement,
12 I have estimated that ratepayers may reasonably be assumed to have provided USWC with
13 cumulative positive pension expense up to $64.8 million, as compared to the negative $66.2
14 million of pension credits that the Company proposes to include in rate base as a pension asset.

Q. How does Appendix SCC-1 quantify the amount of pension cost included in the cost of service resulting from Dockets E-1051-88-146 and E-1051-91-004?

A. Because these two Dockets were stipulated settlements, Appendix SCC-1 assumes that the amount of pension cost included in the preceding litigated rate case continued in full force and effect.

Q. Why was the analysis presented by Appendix SCC-1 start in 1986?

A. Calendar year 1987 represents the year in which USWC adopted FAS87. The rate order immediately preceding the adoption of FAS87 was implemented by order dated January 10, 1986. [Decision No. 54843, dated December 31, 1995, Docket No. E-1051-84-100.] By starting the analysis in 1986, it is possible to capture the transition to FAS87 and recognize that customer rates did not change immediately upon adoption of this accounting change. Consequently, it would be possible to examine how closely the cost of service allowance for this item has followed the recorded pension credits (or alleged ratepayer "benefits") the Company seeks to include in rate base.

Since the test year in Docket No. E-1051-84-100 was calendar year 1984 and the next rate case was Docket No. E-1051-84-100 with an order issued March 1, 1989 adopting a negotiated resolution, any rates in effect during the intervening period (i.e., calendar year 1986, 1987, 1988 and through February 1989) would not have reflected any pension credits associated with FAS87. Consequently, any positive pension costs included in the development of the rates effective during this period would tend to offset or mitigate the net amount of pension credits included in the cost of service since the FAS87 adoption.

Q. In describing Appendix SCC-1, you indicated that two of the rate cases (i.e., E-1051-88-146 and E-1051-91-004) were resolved by negotiated settlement. Why do you believe that this is important?

A. In assessing the amount of pension credits flowed through to ratepayers, it is imperative that only those orders which specifically address the various components of cost of service be considered.

- Docket No. E-1051-88-146 represented an earnings complaint proceeding that was styled as a Commission examination of the Company's rates and charges. By Decision 56471, the Commission rescinded its earlier order finding for an interim rate reduction of $33.4 million and adopted a negotiated settlement offered by the parties to implement a permanent rate reduction.

- In Docket No. E-1051-91-004, the parties again presented the Commission with a negotiated settlement agreement, which contained the following provision:

> 23. Except as otherwise expressly provided in this Agreement, all the provisions of this Agreement have been negotiated for Settlement purposes only, and no party to this Agreement has approved, accepted, agreed to or otherwise consented to any method for determining return on equity or investment, rate base, cost of service, or any allocation method or rate design formula underlying any of the rates, charges, terms and conditions set forth in this Agreement.
> [Settlement Agreement appended to Decision 57462]

Settlement agreements are typically non-specific, by design. The negotiation process entails any number of compromises by each participant in the interest of reaching a resolution or common ground that each party finds acceptable. Such settlements leave the Commission unaware of important details, instead only presenting the final outcome as set forth in the agreement. By its very nature, a settlement agreement reflects a compromise that can be valued in various ways, not necessarily reflecting the filed positions of any particular party. As a result, I am unable to conclude what amount of any pension credits were embedded within the test years used in either of these proceedings or whether any credits were partially or fully flowed through to benefit ratepayers, to the detriment of the Company's investors.

Q. If the assumption were to be made that it was reasonable to go behind these negotiated settlements in order to identify the amount of pension costs included in rates, have you attempted to estimate that effect on the calculations set forth in Appendix SCC-1?

A. Yes. Appendix SCC-2 attempts that very calculation. If the Commission were to conclude that it was proper to step behind the explicit language and basic underpinnings of settlement agreements, Appendix SCC-2 would indicate that ratepayers may have participated in cumulative negative pension expense of approximately $42 million. If the Commission were to endorse this premise, the amount of the net pension asset (net of related deferred income tax reserves) included in rate base should not exceed 63% of the amounts set forth on ACC Staff Adjustment B-3, supported as follows:

Description	Ref.	Pension Asset
Cumulative Pension Credits Included In Rates	**(a)**	$42,029
USWC's Proposed Pension Asset	**(b)**	66,221
Ratepayer Percentage of Pension Credits		63.47%

Note (a): Appendix SCC-2.
Note (b): USWC Adjustment P-04.

Q. Do you believe that all elements of the cost of service included in past rates should be reconciled with current cost levels to determine prospective rate treatment for each item?

A. No. As a matter of ratemaking policy, I do not recommend that the Commission rely solely on or otherwise reconcile past decisions in establishing cost of service for future periods. However, it is my opinion that the consideration of past Commission rate orders are indeed relevant in demonstrating the Company's failure to meet its burden to establish that investors have some claim to inclusion of the pension asset in rate base.

If the funded status and related earnings of the pension plan were created solely with investor funds, I could understand the Company's concerns on this issue. On the other hand if ratepayers are assumed to have substantially funded the Company's past pension contributions with USWC retaining a material portion of the pension credits, then the inclusion of the Company's "pension asset" in rate base would improperly charge ratepayers a return on funds retained by the Company and would result in a windfall to investors. As discussed above, I do not believe that the Company has demonstrated that ratepayers have benefitted from the pension credits to the detriment of investors. For these reasons, the Commission should reject the Company's rate base request.

Company Position

Q. What is the basis for the Company's claim that the pension asset should be included in rate base?

A. At pages 15-16 of his initial direct testimony filed in this proceeding, Company witness Redding briefly discusses USWC's rationale for including the pension asset in rate base. Mr. Redding generally refers to the test year pension credits as a "non-cash" item, which should be treated consistently with the pension asset. The following excerpt appears in this portion of Mr. Redding's testimony, further explaining why the Company has proposed that the pension asset be included in rate base:

> The customer will benefit from the pension credit in the form of reduced revenue requirements, similar to the past when they benefited [sic] from pension credits the Company recorded in the late 80's and early 90's. Pension credits, which are a non-cash item, reduce the revenue requirement. However, this reduction is a cash item. By this I mean that the revenues collected from customers are lower because of the inclusion of the pension credit in the development of the revenue requirement. Since the earnings of the pension plan cannot be withdrawn, the Company's investors have to contribute the cash required to fund this reduction in revenue requirements generated by the pension credits. The equitable balance between the Company's customers and its investors is to flow through the pension credits to the

> customers and to allow the accumulated pension asset resulting from the pension credits to earn a return as part of the rate base. This reimburses the investors. [Redding Direct, pages 15-16]

As indicated above, it is the Company's view that the pension asset represents investor supplied funds. In essence, the Company has proposed rate base inclusion of the pension asset on the basis that ratepayers have benefitted through a lower cost of service because the pension credits reduced revenue requirements and because the Company recorded pension credits in the late 80's and 90's. Accordingly, the Company has proposed that the recorded pension asset should be included in rate base as ratepayer compensation for the use of investor funds.

Q. Do you agree with the Company that its investors have contributed the additional cash required to "fund" reduced revenue requirements generated by the pension credits?

A. No. Other than providing a general reference to customers benefitting from "reduced revenue requirements, similar to the past when they benefited [sic] from pension credits the Company recorded in the late 80's and early 90's," Mr. Redding does not provide any definitive or comprehensive analysis of the amount of pension credits ratepayers are alleged to have actually received through the ratemaking process. Instead, I believe that the Company seeks to generally and improperly combine its historical accounting for pension costs with presumed ratemaking effects in an attempt to convince the Commission that USWC's customers have benefitted to the detriment of its investors.

Q. Have you made any further inquiries into the details underlying the Company's position on this issue?

A. Yes. Data Request No. UTI 20-4 was submitted specifically to obtain additional information regarding the Company's position on ratepayer benefits. The following passage was provided in partial response to this discovery request:

> Mr. Redding and Mr. Grate subscribe to the generally accepted ratemaking principle that rates based on sound cost-of-service ratemaking principles will, nonetheless, likely be either inadequate or excessive because revenues actually collected during a rate effective period will likely be, respectively, either less than costs actually incurred or more than costs actually incurred. If utility rates are inadequate, then the available remedy is for the utility to file for a rate increase. Conversely, excessive utility rates may require the filing of a complaint-style investigation by the regulatory agency, its staff or another party. Ratepayers benefit from the recordation of expense credits because they reduce costs actually incurred which, in turn, cause a revenue requirement reduction that helps to either obviate the need for a rate increase filing by the utility or to support a complaint of excessive rates by a regulator or other party.
> [Data Request No. UTI 20-4(a)]

Based on this theory, the Company then postulates that the potential for rate increase filings or complaint reductions effectively serves as the balance to ensure that ratepayers benefit from cost reductions (i.e., pension credits) as they arise. The response to Data Request No. UTI 20-4 further discusses this point, as follows:

> For the reason stated in response to subpart "a," Mr. Redding and Mr. Grate believe that ratepayers receive the benefit of reduced expenses (i.e. pension credits) regardless of whether a specific year's reduced expenses are used to establish cost of service in ratemaking proceeding. Specifically, reduced expenses reduce revenue requirement and reduced revenue requirement benefits ratepayers.
> [Data Request No. UTI 20-4(b)]

Using this logic, the Company essentially concludes that the pension asset must have been funded by its investors – since ratepayers have benefitted from negative pension costs, while investors were required to absorb the resulting short-fall in earnings.

Q. Do you agree with this premise?

A. I understand the Company's position, but respectfully disagree. Anticipating the Company's position on this subject, subpart (d) to Data Request No. UTI 20-4 asked whether it would then follow that ratepayers immediately incur or fund increases in expense that are recorded by the

Company, regardless of the extent to which those amounts are explicitly recognized in the ratemaking process. Not too surprisingly, the Company's response, reproduced below, declined to symmetrically apply its theory of ratepayer benefit to also apply to funding costs increases:

> No. Ratepayers do not immediately incur or fund increases or decreases in expenses (or revenues or ratebase for that matter) because changes in the elements of revenue and cost that comprise revenue requirement do not reflect themselves in rate immediately. See the response to part "a."
>
> So long as the parties to the ratemaking process are vigilant, however, all changes in expenses, revenues and ratebase are recognized in the cost-of-service ratemaking process because once known and measurable, they can be included in a measurement of revenue requirement. From that measurement, the parties to the ratemaking process can determine whether filing a rate case or complaint is justified.
> [Data Request No. UTI 20-4(d)]

It is true that a common simplifying assumption in the ratemaking process is that costs are recovered as expensed. If this premise of cost recovery was globally applied and true without exception, utilities would have absolutely no need to obtain regulatory authority to defer or seek explicit recovery of any incurred cost, as the act of recording such costs as a current period expense would provide the needed recovery. Under such a theory, the Company would not have needed to seek Commission authority in prior dockets to defer and amortize one-time transition costs (e.g., compensated absences, merit awards, medical & dental costs) or request the explicit recovery of costs associated with FAS112 or FAS106. Even the Company's response to Data Request No. UTI 20-4(c) recognizes the limitations of this argument and seems to undermine any symmetry to its position.

Nevertheless, I do not believe that one can simply assume that an ever vigilant ratemaking process will ensure that "all changes in expenses, revenues and ratebase are recognized in the cost-of-service ratemaking process." All parties including the Commission have competing

demands for limited resources. As interested as regulatory commissions are in ensuring that regulated rates are no higher or lower than necessary, it has been my experience that regulatory agencies are often hesitant to commit the required resources to pursue and process formal earnings complaint cases – particularly in the context of the likely discovery challenges surrounding a complaint investigation and the obligation to process other filed applications within more typically stringent time frames.

Q. In your opinion, how does this theory of "as recorded" cost recovery relate to the traditional ratemaking process?

A. Whenever a rate case is filed by a utility, it assumes a risk that the rates filed and ultimately approved will either be inadequate or excessive, no matter what test year approach or series of adjustments are proposed by the parties. Generally, utility rates are authorized based on a known and measurable test year cost of service regardless of the actual level of costs which might be incurred during the rate-effective period. If utility rates are inadequate, then the available remedy is to timely file for a rate increase. Conversely, excessive utility rates normally require the filing of a complaint-style investigation by the commission staff or a consumer group, as utilities are rarely willing to voluntarily initiate base rate reductions.

It is widely accepted that cost based utility rates, once established by a ratemaking body, are deemed to be just and reasonable until such time as a moving party carries its burden of proof to establish that said rates are no longer just and reasonable. Costs incurred by the utility are often presumed to be covered by existing rates, regardless of whether the cost of service study underlying said rates included a specific allowance for that unique cost. Otherwise, the result could entail an endless reconciliation process comparing each element of actual costs during the rate-effective period with the cost of service details underlying the preceding rate case order. However, this presumption does not extend to the actual adjustment of utility rates

charged ratepayers between rate cases to track specific cost levels, such as negative pension expense or represcription changes.

It is also generally recognized that to allow utilities to collect additional funds from ratepayers in the future simply because expenses were incurred which had not been specifically provided for in the determination of the existing base rates is considered retroactive ratemaking. While past expenses are frequently employed in quantifying or developing the prospective cost of service on which overall rates are based, it is improper to establish future rates at levels intentionally designed to recover past losses or under-recoveries due to historical imbalances in the matching of rates and actual expenses.

In spite of the realities of the ratemaking process, the Company has basically relied on an "as recorded" cost recovery theory to support an allegation that the prospective ratemaking process should be modified to recognize that past accounting practices have allegedly benefitted ratepayers (i.e., negative pension costs) to the detriment of its investors. In my opinion, the Company must assume an even greater burden to demonstrate the existence of the alleged "investor contribution" than has been presented in this proceeding.

Q. Do you have any further comments on this issue?

A. Yes. In Docket No. E-1051-93-183, the Commission was presented with a very similar ratemaking issue associated with the pension asset and FAS87 pension credits. The ACC adopted the Staff's recommendation in that rate case. The following excerpt appears at page 5 of the Decision No. 58927:

> We concur with the Company that the overfunded pension assets which were contributed by shareholders should be included in rate base. It would be unfair to permit ratepayers to benefit by reduced expenses resulting from capital invested by Company shareholders. However, at the same time it would be equally unfair to include the overfunded pension assets in rate base if ratepayers have previously

> provided those funds to the Company. Although the Company has presented evidence in an effort to demonstrate that since 1986 the shareholders have provided the monies which resulted in the current overfunded pensions asset, Staff's analysis has raised significant questions as to the accuracy of the Company's claim. Even if we were convinced of the accuracy of the Company's number for the 1976-1993 period, we would still not be able to conclude that shareholders have advanced excess pension amounts from the inception of the pension account. Based on all the above, we find the Company has not presented sufficient evidence to clearly demonstrate that its shareholders have advanced the excess pension amounts. Accordingly, we must deny the Company's request to include the net amount of overfunding of $36,213,000 in rate base.
> [Arizona Docket No. E-1051-93-183, Decision No. 58927, page 5]

In spite of this language, the Company declined to directly address this issue in direct testimony.

Conclusion

Q. Please summarize your recommendation on this issue.

A. I do not believe that the Company has adequately demonstrated that ratepayers have received substantial pension credit benefits to support the inclusion of the entire pension asset in rate base. Although some pension credits have been returned to ratepayers through a reduction in revenue requirements, it is my opinion that the amount of any such benefits are relatively limited in comparison to the pension asset balance. For the reasons previously set forth, the Commission should deny the Company's request to include a pension asset in rate base and similarly remove the related deferred income tax reserves from rate base.

Q. Does this conclude your direct testimony?

A. Yes.

U S WEST COMMUNICATIONS, INC.
DOCKET NO. T-1051B-99-105
Analysis of Pension Costs Included in Revenue Requirement

				Arizona Intrastate (000's)	
Year	ACC Docket	Order Date	Assumed Months in Effect	Ratemaking Pension Allowance	Estimated Pension Credit in Rates
1986	84-100	1/10/86	12	$12,200	$12,200
1987	84-100		12	12,200	12,200
1988	84-100		12	12,200	12,200
1989	84-100		2	12,200	2,033
	84-100 (a)	3/01/89	10	12,200	10,167
1990	84-100 (a)		12	12,200	12,200
1991	84-100 (a)		6.5	12,200	6,608
	84-100 (b)	7/15/91	5.5	12,200	5,592
1992	84-100 (b)		12	12,200	12,200
1993	84-100 (b)		12	12,200	12,200
1994	84-100 (b)		12	12,200	12,200
1995	93-183	1/03/95	12	(9,000)	(9,000)
1996	93-183		12	(9,000)	(9,000)
1997	93-183		12	(9,000)	(9,000)
1998	93-183		12	(9,000)	(9,000)
1999	93-183		12	(9,000)	(9,000)
					$64,800

Note (a): The pension costs from Docket 84-100 are assumed to continue due to the settlement in Docket 88-146.

Note (b): The pension costs from Docket 84-100 are assumed to continue due to the settlement in Docket 91-004.

If negotiated settlements are treated as resolutions without any finding on specific costs and/or recoveries, a reasoned assumption would look to the results from the previous most recently litigated case to determine the amount of pension expense.

U S WEST COMMUNICATIONS, INC.
DOCKET NO. T-1051B-99-105
Analysis of Pension Costs Included in Revenue Requirement

				Arizona Intrastate (000's)	
Year	ACC Docket	Order Date	Assumed Months in Effect	Ratemaking Pension Allowance	Estimated Pension Credit in Rates
1986	84-100	1/10/86	12	$12,200	$12,200
1987	84-100		12	12,200	12,200
1988	84-100		12	12,200	12,200
1989	84-100		2	12,200	2,033
	88-146 (a)	3/01/89	10	(600)	(500)
1990	88-146		12	(600)	(600)
1991	88-146		6.5	(600)	(325)
	91-004 (a)	7/15/91	5.5	(9,900)	(4,538)
1992	91-004		12	(9,900)	(9,900)
1993	91-004		12	(9,900)	(9,900)
1994	91-004		12	(9,900)	(9,900)
1995	93-183	1/03/95	12	(9,000)	(9,000)
1996	93-183		12	(9,000)	(9,000)
1997	93-183		12	(9,000)	(9,000)
1998	93-183		12	(9,000)	(9,000)
1999	93-183		12	(9,000)	(9,000)
					($42,029)

Note (a): Per USWC response to UTI 20-5, booked amount assumed as pension credit included in both settlements.

If negotiated settlements are not treated as resolutions without any finding on specific costs and/or recoveries, the above tabulation would reflect the net pension expense credits conveyed to ratepayers – even though two of the proceedings that involved the introduction of negative pension costs were negotiated settlements.

EXHIBIT
S-15
admitted

PREPARED SURREBUTTAL TESTIMONY OF
STEVEN C. CARVER
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US WEST COMMUNICATIONS, INC.
DOCKET NO. T-1051B-99-105

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BEFORE THE
ARIZONA CORPORATION COMMISSION
PREPARED SURREBUTTAL TESTIMONY OF
STEVEN C. CARVER

US WEST COMMUNICATIONS, INC.
DOCKET NO. T-1051B-99-105

Q. Please state your name and business address.

A. My name is Steven C. Carver. My business address is 740 North Blue Parkway, Suite 204, Lee's Summit, Missouri 64086.

Q. Are you the same Steven C. Carver who filed direct testimony on behalf of the ACC Staff in this proceeding?

A. Yes.

Q. Are you aware that U S WEST has undergone a name change during the pendency of this docket?

A. Yes. As indicated in my direct testimony, U S WEST and Qwest Communications ("Qwest") recently consummated a merger of the two companies. Although Qwest is the surviving corporation, the pending docket was filed and has, by and large, been processed prior to completion of the merger. For reference purposes, my surrebuttal testimony will continue to address the Company as "USWC" or "U S WEST" – rather than Qwest.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony will address portions of the rebuttal testimonies of two Company witnesses. In the context of the rebuttal testimony of Mr. George Redding, I will address test year results; the Company's end-of-period ("EOP") non-labor expense annualization; SOP 98-1; post-test year wage & salary increases; image advertising and Olympic sports sponsorship costs; and clarify the Staff's position on FCC Deregulated Services imputation. Concerning Mr. Grate's rebuttal testimony, I will discuss both the incentive compensation and pension asset issues.

EXECUTIVE SUMMARY

Q. Has the Company's rebuttal evidence caused you to revise any of the adjustments that are addressed in your direct testimony?

A. No. Based on my review of the Company's rebuttal filing, I have not identified any modifications that are required to the quantification of the various adjustments set forth in my direct testimony. Based on recommendations to be addressed in the surrebuttal testimony of Mr. William Dunkel, I have reflected a few relatively minor revisions to the depreciation annualization set forth on ACC Staff Adjustment C-15. This revised schedule has been attached as Surrebuttal Appendix SCC-5.

Q. Please describe the differences in the approach to the test year between the Company and Staff.

A. In general, the rebuttal testimony of Mr. Redding discusses the basic regulatory theory underlying the ratemaking process (page 3) and presents a "test" of the proposals of the Company, Staff and RUCO "to see if they fulfill the purpose of a properly adjusted test year" (pages 8-9). I disagree with Mr. Redding's conclusion for two reasons:

1. the purpose of an historic test year is <u>not</u> to estimate precise levels of net operating income or rate base expected to be experienced in future periods, and
2. his "test" results offer inconsistent and misleading comparisons.

Q. Please summarize the status of the difference between the Company and Staff in the annualization of non-labor operating expenses.

A. In general, the Company based its annualization of non-labor operating expenses using a "December 1999 times 12 methodology." In rebuttal, Mr. Redding presents a graph (Rebuttal Exhibit GAR-R2) purporting to show that the Company's method yields reasonable results, while the Staff and RUCO methodologies result in revenue requirements that are "sorely deficient." This result was predetermined even before Mr. Redding assembled this exhibit –

because the comparison is flawed. If the Company's analysis is modified to exclude the effect of Staff proposed adjustments (image advertising/ sports sponsorship, incentive compensation, service quality, and SOP 98-1) from historic cost levels, the result shows that the Staff's proposed level operating expense is more representative than the level recommended by the Company.

Q. Does your surrebuttal testimony address other issues covered by Mr. Redding's rebuttal testimony?

A. Yes. Mr. Mr. Redding and I disagree on the appropriate regulatory treatment for internal-use software. I recommend capitalization consistent with SOP 98-1 while Mr. Redding supports continued expensing. We also disagree on the ratemaking treatment of post-test year wage and salary increases as well as image advertising and Olympic/ sports sponsorship costs. The Company proposes inclusion while the Staff recommends exclusion of such costs.

Mr. Redding concurs with the "end result" but not the methodology proposed by the Staff with regard to FCC Deregulated Services. However, because of the approach employed, my surrebuttal testimony clarifies the Staff's position on the interrelationship between FCC deregulated services and the jurisdictional separation of various other adjustments proposed by the parties.

Q. Please summarize your surrebuttal regarding the incentive compensation issue.

A. Mr. Grate suggests that the costs of all Company's incentive compensation plans are reasonable and recommends their inclusion in revenue requirement. I discuss the ABP, STIP and LTIP incentive compensation plans and explain why the cost of these plans are not reasonable to be borne by the Company's Arizona ratepayers. Generally, these incentive plans are primarily driven by corporate-wide financial results or surveys to assess the perceptions of the Company by both customers and non-customers. Corporate-wide objectives do not address

or define performance expectations that are unique to Arizona or the specific work activity of common groups of employees. The surveys do not focus on service quality in Arizona. The Company has not demonstrated the degree to which these corporate-wide objectives have resulted in achievement levels unlikely to be attained in the absence of such plans or created benefits for Arizona ratepayers that could not have been attained otherwise.

Q. Please summarize your surrebuttal regarding the pension asset issue.

A. Mr. Grate and I also disagree on whether the pension asset should be included in rate base. Both my direct and surrebuttal testimonies as well as Mr. Grate's rebuttal testimony discuss this issue in significant detail. Mr. Grate contends that "ratepayers always benefit" from the Company's recording of pension credits, but this concept of cost recovery is not consistently followed by the Company. I contend that the Company has failed to demonstrate that ratepayers have received the full benefit of the pension credits such that the pension asset should be excluded from rate base.

TEST YEAR RESULTS

Q. Beginning at page 3, line 12 of his rebuttal testimony, Mr. Redding discusses the basic regulatory theory of the ratemaking process. Do you agree that the objective of the regulatory process is to establish prospective rates that will be in effect during future periods?

A. Yes. In Arizona, utility rates are typically based on an historic, but adjusted, test year. Any change in overall revenue requirement is only implemented, by definition, on a prospective basis.

Q. At page 4, line 7, Mr. Redding states:

> "The purpose of the test year is to estimate, to the best extent possible, the conditions that will exist when rates from this proceeding will go into effect."

Do you agree?

A. I generally concur with this statement, but feel compelled to qualify the nature of my concurrence. A test year is used to determine the various components of the ratemaking equation (rate base, revenues, expenses and weighted cost of capital) in order to quantify overall revenue requirement and establish tariff rates. It is these resulting tariff rates that are effective in future periods.

Unless a fully forecasted test year is employed, the ratemaking framework does not attempt and should not be presumed to estimate the level of rate base, revenues, expenses and weighted cost of capital expected to occur during the rate effective future period. When an historic test is used, the adjusted test year data does not typically represent the level of volumes/ quantities and prices expected in the future rate-effective period. So, the results from the historic test period should not be expected to match future levels of rate base, revenues, expenses and capital costs.

Q. If an historic test year can not be expected to match or predict future levels of rate base, revenues, expenses and capital costs, can a regulated entity reasonably expect to have an opportunity to earn a reasonable return on its investment?

A. Yes. In the context of an historic test year, it is known that each component of the ratemaking formula will change immediately following the end of that historic period. So, instead of trying to estimate or predict future revenue or expense levels, the historic test year ultimately results in a series of relationships between the various components of the ratemaking formula (rate base, revenues, expenses and capital weighted costs). The resulting revenue requirement is then used to determine tariff rates and charges that will be applied to actual levels of customer subscriptions to the various products and services offered subsequent to the test year. It is expected that future customer subscription levels will be different from the levels on which test year revenues were established – just as future levels of rate base and expenses are also expected to be different.

As long as the test year reasonably balances the various components of the ratemaking formula, the resulting prices charged to future customers will still afford the utility an opportunity to earn a reasonable return on investment – even if the test year was not specifically designed or intended to forecast the level of revenues and expenses expected to be realized during the rate effective period.

In order to achieve a reasonable "balance," it is important to consistently value quantities or volumes (access lines, minutes of use, employee levels, number of bills mailed, number of magazine subscriptions, number of professional memberships, etc.) and prices (wage/ salary rates, postage costs, renewal rates, etc.). If consistency is not achieved for those items materially influencing the cost of service, the resulting revenue requirement may yield results that skew (either high or low) the utility's opportunity to achieve a return other than that authorized.

1 Q. Has any party to this proceeding suggested that a forecast test year be employed?
2 A. No. However, it is a forecast test year, not an historic test year, that is explicitly designed to
3 quantify future levels of revenue, expense and investment.

4 Q. In the context of a fully forecasted test year, are forecast estimates of quantities and prices
5 undertaken?
6 A. Yes. While a forecast test year may be valued using an average or year-end approach, it is
7 imperative that volumes and prices be consistently forecast into the future. So, a forecast test
8 year is a "best efforts" attempt to estimate future quantities and prices. In my experience, the
9 use of a forecast test year does not simplify the ratemaking process – it changes the types of
10 valuation issues that arise between the parties.

11 Q. Beginning at page 8 of his rebuttal, Mr. Redding presents a "test" of the proposals of the
12 Company, Staff and RUCO "to see if they fulfill the purpose of a properly adjusted test year."
13 Are you familiar with this portion of Mr. Redding's rebuttal testimony?
14 A. Yes. Referring to the table on page 9 of his rebuttal testimony, Mr. Redding annualizes the
15 actual net operating income realized during the first five months of 2000, adds the net
16 operating income ("NOI") value of the recommendations of the various parties and then
17 quantifies a return on investment using May 2000 average net investment. This "test" was
18 used by Mr. Redding to conclude that the recommendations of the Staff and RUCO will
19 "completely miss the mark of approximating the conditions that will be in effect when rates
20 from this proceeding go into effect" and "will not provide sufficient revenues to generate the
21 required rate of return."

22 Q. Do you concur with Mr. Redding's conclusion?
23 A. No. I disagree with Mr. Redding's conclusion for two reasons. First, as discussed previously,
24 an historic test year was never intended to estimate, with precision, levels of net operating
25 income or rate base expected to be experienced in future periods. Nonetheless, it will certainly

provide a reliable basis for revenue requirement estimation purposes. Second, Mr. Redding's quantification of this "test" offers an inconsistent comparison and appears to be intentionally misleading.

Q. Could you please summarize your quantification concerns with respect to this table?

A. Yes. In quantifying the $61,973,000, the Company annualized the May 2000 intrastate NOI by simply multiplying the YTD as recorded intrastate net operating income by a factor of 12/5^{ths}. USWC has made no attempt to modify the "as recorded" NOI amounts for any of the following items, typically reviewed and adjusted during a rate case analysis of revenues and expenses:

- out-of-period or prior period journal transactions
- abnormal or non-recurring transactions
- proposed regulatory disallowances or accounting changes

Q. Why do you believe that Mr. Redding's "test" is inconsistent?

A. In quantifying the level of net operating income underlying the recommended revenue requirement, the Staff has proposed a variety of ratemaking adjustments. The NOI effect of these adjustments is included within the $4,261,000 deficiency contained in the Staff's direct filing that is identified as "Staff NOI Value of Revenue Requirement/ Deficiency" in Mr. Redding's table. However, the $61,973,000 (representing year-to-date May 2000 annualized net operating income) has <u>not</u> been similarly adjusted for consistency with the NOI deficiency proposed by Staff.

For example, the Staff's computation of the $4,261,000 NOI deficiency incorporates the imputation of Directory Revenues, the capitalization of Internal-Use Software consistent with SOP 98-1, the elimination of certain incentive compensation costs and the elimination of the costs of image advertising/ sports sponsorships. Each of these adjustments effectively decrease the Staff's proposed NOI deficiency. Further, the NOI deficiency, as well as the overall

revenue requirement, recommended by the ACC Staff reflects the elimination of test year costs and investment associated with the access line sale to Citizens Utilities. In order to present a meaningful comparison, Mr. Redding should have similarly adjusted the May 2000 YTD annualized NOI and rate base amounts to reflect comparable treatments for these items. Had he done so, the net effect would have been to increase the annualized May 2000 intrastate NOI above the $61,973,000.

Q. Why did you express concern that this "test" appears to be intentionally misleading?

A. ACC Staff Data Request No. UTI 69-11 specifically asked for an explanation of why the YTD May 2000 NOI was not adjusted to recognize the various Staff adjustments mentioned previously. To paraphrase the Company's response thereto:

> The purpose of the table was to compare recommended revenue requirements/deficiency with actual 2000 results. Ratemaking adjustments for directory advertising, image advertising, incentive compensation, access line sale, etc. are not made in actual results.
> [ACC Staff Data Request No. UTI 69-11]

If ratemaking adjustments were included in actual results, there would be no need for the ratemaking adjustments to begin with. It appears that the Company intentionally decided to <u>not</u> adjust the YTD May 2000 NOI or rate base amounts for out-of-period, abnormal, nonrecurring items or to otherwise reflect consistency with the Staff's proposed revenue requirement adjustments. This led me to conclude that the comparative results appeared to be intentionally misleading.

Q. Would the recognition of these various "consistency" adjustments influence the "Return on Avg. Net Investment" as presented in the table set forth on page 98 of Mr. Redding's rebuttal testimony?

A. Yes. In general terms, I would expect the returns on investment in the Staff and RUCO columns of this table to increase if these consistency adjustments were prepared. However,

I have not attempted to present alternative return calculations, because no detailed analyses have been conducted on the actual revenues or expenses recorded during the period January - May 2000 to identify and quantify other adjustments that may be required to properly restate revenues and expenses for comparative purposes. As indicated by the response to ACC Staff Data Request No. UTI 69-10, the Company's analysis does not incorporate any such adjustments.

Q. Why should any of these adjustments be of concern in presenting this type of comparison?

A. Mr. Redding's stated purpose was to "test" the proposals of the Company, Staff and RUCO "to see if they fulfill the purpose of a properly adjusted test year." Assume that the Commission were to agree with the Staff that all image advertising and sports sponsorship costs should be excluded from rates. If USWC/ Qwest makes the conscious decision to continue funding these types of activities, it is entirely reasonable for the Company to expect downward pressure on its achieved return – as rates were not intended to explicitly allow for recovery of these disallowed costs. By comparing the 9.68% Staff "Recommended Rate of Return" with Mr. Redding's calculation of the 4.06% Staff "Return on Avg. Net Investment", the Company is merely complaining that its earnings will be short and failing to recognize that some portion of the short-fall is controlled by the Company itself. This is not a valid criticism of the adjustment recommendations proposed by Staff.

EOP NONLABOR REVERSAL

Q. Beginning at page 11 of his rebuttal testimony, Mr. Redding is critical of your comments regarding the Company's end-of-period annualization adjustment. Are you familiar with that portion of Mr. Redding's rebuttal?

A. Yes. I have reviewed Mr. Redding's testimony and his allegations that my direct testimony attempts to discredit the Company's methodology by: "glossing over the details," "fogging the main point," "picking and choosing" or obfuscating the main purpose of the annualization.

Q. Do you agree with these criticisms?

A. Absolutely not. While I do not question Mr. Redding's representation, at rebuttal page 12, that the Company's EOP annualization adjustment "took a great deal of time and analysis," this does not change the fact that the Company's high-level annualization technique summarily over-rides millions of accounting transactions recorded each year for the sake of year-end "consistency."

Also, I find it incredible that Mr. Redding would make the claim that "estimates are not made more meaningful or accurate by being 'more detailed' or 'precise'." [Redding rebuttal, p. 14] The millions of transactions recorded each year are based on "detailed" invoices and other accounting records that must be "precise" and accurate. However, as shown by Mr. Redding's Rebuttal Exhibit GAR-R2, recorded intrastate expense levels fluctuate dramatically from month-to-month. As a consequence, I believe that such gyrations require and demand even more detail and precision – if a one-month times twelve annualization technique is employed.

Q. At pages 15 through 18, Mr. Redding introduces Rebuttal Exhibits GAR-R1, GAR-R2 and GAR-R3 which compare historical monthly results from the period January 1997 through May 2000 with overlays of the proforma levels proposed by Company, Staff and RUCO. Have you reviewed these graphs?

A. Yes. Mr. Redding contends that the comparisons between historic results and the Company's end-of-period proforma levels offered in my direct testimony present "apples and oranges." He believes that a more appropriate measure of the reasonableness of the adjustment results would be achieved by a comparison with future levels – thereby demonstrating that Staff's reliance on historical results is "misleading and inappropriate." In assembling these rebuttal graphs, Mr. Redding chose to exclude the effect of certain revenues and costs for comparison purposes:

- deregulated results,
- directory imputation, and
- sale of exchanges.

According to Mr. Redding (rebuttal, p. 20), the Company represents that these graphs "demonstrate that the Company's method, which was done at an overall level is not improved by digging around in the details." Interestingly, Mr. Redding concludes that Rebuttal Exhibits GAR-R1 and GAR-R3 show that the parties are "very close" in operating revenues (except for directory imputation) and "quite close" on total depreciation – presumably supporting his contention.

However, Mr. Redding goes on to state that the comparison "really falls apart" in the context of "Expenses Other than Depreciation" [Rebuttal Exhibit GAR-R2]. Mr. Redding contends that this exhibit shows that the Staff's recommended expense levels are "significantly below actual levels" being incurred and results in "suggested revenue requirements [that] are sorely deficient."

Q. Do you have any comments with respect to Rebuttal Exhibit GAR-R2?

A. It is not surprising that the results set forth on Rebuttal Exhibit GAR-R2 show the Company's expense levels much closer than amounts from the Staff's filing to the actual levels recorded

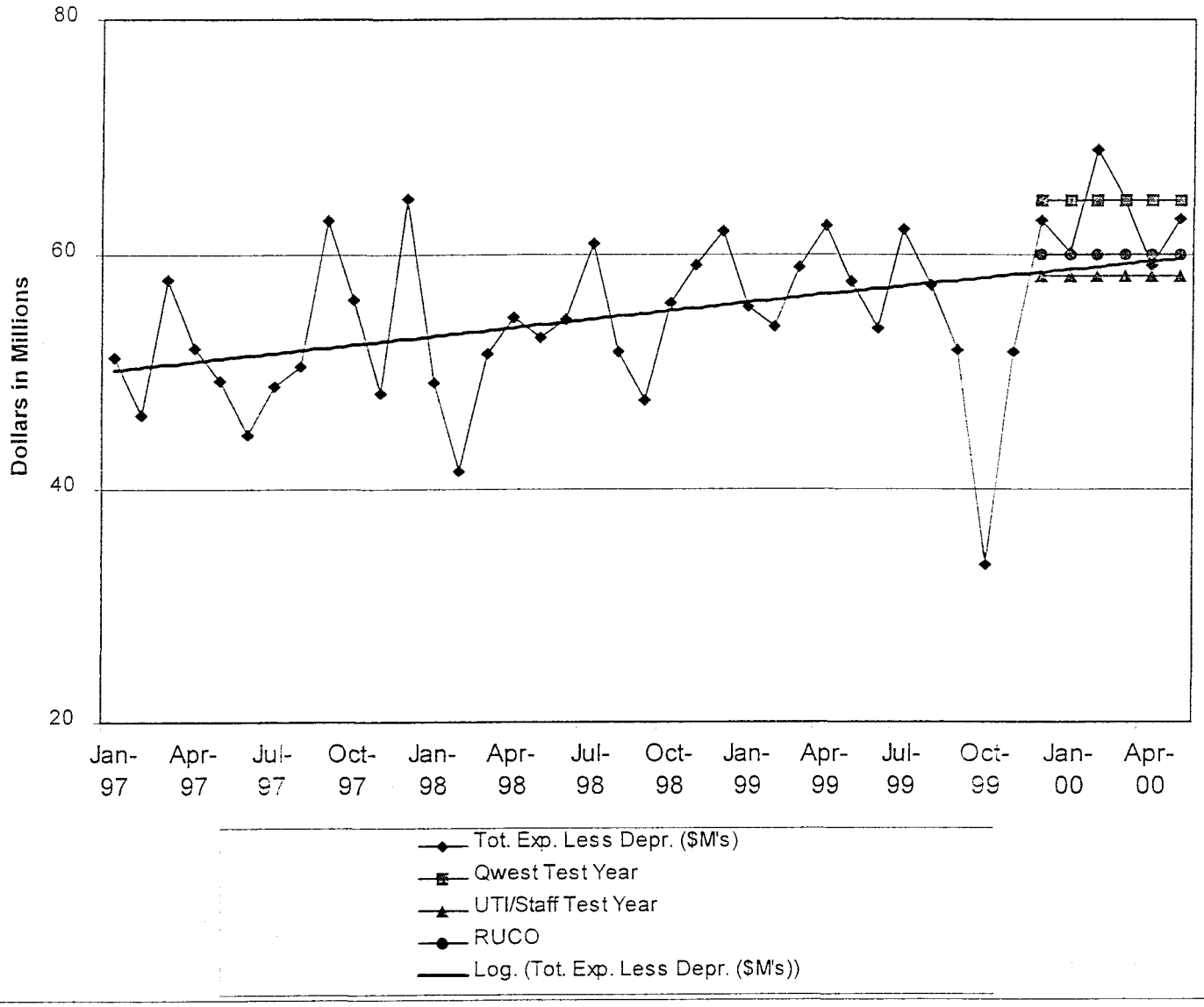
during January through May 2000. This result was predetermined even before Mr. Redding assembled the graph – because Rebuttal Exhibit GAR-R2 is flawed by its own form of the "apples and oranges" comparison for which the graphs in my direct testimony were criticized.

Q. Please explain.

A. The monthly data and the associated trend line for the period January 1997 through May 2000 set forth on Rebuttal Exhibit GAR-R2 are based on "per book" or "as recorded" results. Such amounts include the "as recorded" costs of image advertising/ sports sponsorship, incentive compensation, service quality, and SOP 98-1 that the Staff has proposed to disallow, in whole or in part, for ratemaking purposes. Since the Company has incurred such costs and has <u>not</u> proposed to disallow the cost of these items, it should be expected that Exhibit GAR-R2 would reflect a better "fit" between USWC's proforma expense levels and the regression trend line as well as the actual levels achieved subsequent to the test year. In essence, the graph does represent an "apples to apples" comparison for limited comparison with USWC's proforma expense levels.

However, this is <u>not</u> true for comparison with the Staff's filing. If the Company's analysis presented as Rebuttal Exhibit GAR-R2 is modified to <u>exclude</u> the costs associated with the Staff's proposed treatment of these items (image advertising/ sports sponsorship, incentive compensation, service quality, and SOP 98-1) from the monthly data and trend line, the resulting graph shows that the Staff's proposed expense level is more representative of ongoing conditions than the Company's – to paraphrase Mr. Redding's rebuttal testimony at page 16.

Although I remain concerned that the post-test year data has not been reviewed an analyzed in detail for possible adjustment, the following graph illustrates the result of simply modifying the recorded expenses underlying the Company's Rebuttal Exhibit GAR-R2 for "consistency" with these four Staff adjustments:



This revision to Rebuttal Exhibit GAR-R2 represents more of an "apples to apples" comparison with the Staff's filed revenue requirement.

Q. How can the same basic analysis appear to support both the Staff and Company proforma expense levels?

A. As filed, Mr. Redding (rebuttal page 17) used Rebuttal Exhibit GAR-R2 to support his conclusion that the Staff proposed revenue requirement was "sorely deficient." However, his "apples to oranges" comparison with the Staff's filed amounts essentially presumed that the Company should still be allowed to recover recorded expenses, even if the cost of service explicitly does not allow certain costs to be recognized for ratemaking purposes. For example, the Staff has proposed to disallow image advertising costs and capitalize SOP 98-1 costs. In the Company's historical data, these costs were recognized on an "as recorded" basis. So, this type of "apples to oranges" comparison would almost always show the Staff's proposed expense levels as being deficient. However, once the analysis is modified to exclude the disallowed or capitalized costs – consistent with the Staff's recommendations in this proceeding – the graph results show that the Staff levels are acceptable, by historical comparison standards, while the Company's proforma levels are excessively above the regression trend line.

Q. At rebuttal page 17, Mr. Redding indicates that his exhibits demonstrate just the opposite of the statement you made on page 20 of your direct testimony that "...it is notable that even dramatic post-test year increases in intrastate operating expenses, as presented in the underlying documentation, do not reach the extraordinarily high proforma level included in USWC's proposed revenue requirement." Do you care to comment?

A. Yes. There are several brief points that should be addressed in this regard. First, each data point on Mr. Redding's Rebuttal Exhibit GAR-R2 represents one month of data. In other words, the historical data points starting in January 1997 through May 2000 each reflect one month of expense. In contrast, each data point on the graph of Arizona intrastate operating expense set forth on page 19 of my direct testimony instead reflects twelve months of operating expense.

In order to prepare Rebuttal Exhibit GAR-R2, Mr. Redding was required to calculate an average monthly expense using the twelve months of overall expenses recommended by the Company, Staff and RUCO. As shown by Rebuttal Exhibit GAR-R2, recorded expense levels fluctuate significantly from month-to-month. So, a comparison of an average monthly "proposed" level, that has been smoothed by the averaging process, should be expected to graphically depict a different image than the graphs I used, which relied on rolling twelve months of data to enhance comparability and smooth gyrations in the underlying month-to-month amounts.

Second, as discussed in my direct testimony, recorded expenses are the product of both prices and quantities. The expenses recorded in the post-test year months of January through May 2000 include volume/ quantity and price level changes that were not explicitly considered in either the Staff or USWC proforma expenses.

Third, the expenses in the months of January through May 2000 represent post-test year data that the Staff has not analyzed or reviewed in detail. These expenses are presented on an "as booked" basis and have not been analyzed or adjusted to eliminate the effect of any abnormal transactions or unusual events included therein.

Finally, as indicated in the responses to ACC Staff Data Request No. UTI 69-11, UTI 69-15 and UTI 70-7, the objective of the Company in presenting Rebuttal Exhibit GAR-R2 was to compare recommended expense levels with actual 2000 results. So, the actual data was not adjusted to consider comparability with the proforma expenses recommended by Staff and RUCO.

SOP 98-1 (Internal-Use Software)

Q. Beginning at page 18 of his rebuttal testimony, Mr. Redding discusses his opposition to the adoption of SOP 98-1 for regulatory purposes. Do you have any general comments with respect to the Company's rebuttal position?

A. Yes. Mr. Redding has not introduced any new information that was unknown at the time Staff's direct testimony was filed.

Q. Referring to pages 19 and 20 of Mr. Redding's rebuttal testimony, do you have any comments with regard to the reference to the FCC's adoption of SOP 98-1 or the proposals to move USWC to price cap regulation in Arizona?

A. Yes. The footnote at the bottom of page 19 of Mr. Redding's rebuttal testimony refers to the FCC's decision to modify its price cap rules to exclude exogenous treatment of accounting changes that have no cash flow impact. The decision of how, when and whether to implement a price cap plan in Arizona is one for this Commission to make. While the findings of the FCC on this matter are informative, they are not determinative.

As outlined at pages 64-65 of my direct testimony, the Company has previously implemented a variety of "accounting changes" in Arizona that had no cash flow impact – outside the context of a rate proceeding. Nevertheless, USWC sought regulatory and ratemaking recognition of a variety of accounting changes that were similarly "not cash affecting," including:

- capital to expense shifts resulting from the adoption of the "new" uniform system of accounts prescribed by the FCC (i.e., Part 32);
- change in accounting from the cash method to the accrual method of accounting for compensated absences, merit awards and medical/ dental expenses;
- increase in the capitalization rules from $200 to $500 and then from $500 to $2,000, allowing the expensing of qualifying "small value" assets;
- adoption of revisions to depreciation accrual rates and depreciation reserve deficiency amortizations;

- adoption of the FAS87 accrual method of accounting for pension costs; and
- adoption of FAS106, which implemented a change from cash to accrual method of accounting for post-retirement benefits other than pensions.

All of these items, but the adoption of FAS87, had the effect of initially increasing the rates charged USWC's ratepayers. Although those changes were "not cash affecting" until included in the ratemaking process, the Company still sought regulatory approval and rate treatment.

The Commission has now received proposals from both the Staff and Company advocating the transition from rate of return to price cap regulation. Further, the Company has filed testimony discussing the changing landscape of competition in support of its request to recover significant image advertising and sports sponsorship costs from ratepayers.

Clearly, the Company desires decreased regulation and increased flexibility. But, USWC only seems interested in adopting generally accepted accounting principles for regulatory purposes when the near-term effect is to increase ratepayer costs.

Q Referring to page 19 of Mr. Redding's rebuttal testimony, he refers to these various accounting changes and states that they had "much longer lives, ranging from 7 year to 20 years" than the five year period used to amortize the cost capitalized in accordance with SOP 98-1. Do you have any comments on this point?

A. Yes. While there is no question that the range of 7 - 20 years is greater than five years, the Company has adopted SOP 98-1 for public financial disclosure purposes. However, I do not believe that a five year amortization period is sufficient justification to continue expensing the cost of internal-use softwre.

A five year amortization period is equivalent to an amortization rate of 20%. Referring to ACC Staff Schedule C-15, the Staff's annualization of book depreciation includes updated test year deprecation accrual rates in excess of 16% for five plant accounts (Account 2115, Garage

Work Equipment; Account 2122, Furniture; Account 2123.1, Office Equipment; Account 2431, Aerial Wire; and Account 2424, Submarine Cable Metallic). Referring to footnote (f) on revised ACC Staff Schedule C-15 (see Surrebuttal Appendix SCC-5), Mr. Dunkel has also proposed a three-year amortization (i.e., a 33.3% amortization rate) for the undepreciated investment in Account 2211, Analog Switching Equipment. In addition, the composite book deprecation rate for the $3.6 billion of Arizona intrastate depreciable investment set forth on ACC Staff Schedule C-15 is about 9.0%, which is equivalent to a composite amortization rate of about 11.1 years.

Q. At pages 20-21, Mr. Redding indicates that, in the first year of this accounting change, USWC/ Qwest would reduce software expense by approximately $420 million, but recognize amortization expense of $42 million. Is this amortization based on a ten-year amortization period?

A. No. In this portion of rebuttal testimony, Mr. Redding has assumed that only one-half of the annual amortization expense would be recognized in the year of adoption, with a full year of amortization commencing in Year 2 at $84 million.

Q. At page 21, line 13, Mr. Redding states that you have taken the first year impact, which is now behind the Company, and used that level of expense. Is he correct?

A. No. Mr. Redding's testimony is misleading on two points. First, ACC Staff Adjustment C-13 recognizes a full year of amortization within the test year, not the one-half year amortization as implied by Mr. Redding.

Second, Mr. Redding seems to criticize the Staff's adjustment for recognizing the first year impact. This is an interesting criticism, but not one of merit. Whenever an accounting change occurs, there must always be a first year. Because the Company implemented SOP 98-1 for <u>financial</u> reporting in 1999, the "first year" for financial purposes occurred in 1999. However, this accounting change has yet to be recognized for regulatory purposes, so the first year must

be considered once it is adopted for regulatory purposes. ACC Staff Adjustment C-13 does just that by reflecting the first year effect, including a full year of amortization not the one-half year convention suggested in Company rebuttal testimony.

Q. Beginning at page 22 and continuing through page 24, Mr. Redding discusses an automatic rider to capture the annual change in revenue requirement resulting from the regulatory adoption of SOP 98-1. Do you have any comments?

A. Yes. First, Rebuttal Exhibit GAR-R4 and the revenue requirement amounts set forth on page 23 of Mr. Redding's rebuttal testimony do not employ the one-half year convention referenced by Mr. Redding at pages 20-21. Second, Rebuttal Exhibit GAR-R4 effectively assumes that the entire return of 10.86% is equity based, which serves to slightly overstate the return on investment element of the revenue requirement model. Third, the revenue requirements set forth on page 23 of Mr. Redding's rebuttal show that the annual nominal dollar effect does not turn-around until year 2003 and, on a cumulative basis, does not turn-around until well after 2004 – more specifically in the year 2010.

Q. At page 23, Mr. Redding refers to a 1996 Arizona Court of Appeals decision resulting from ACC Docket No. E-1051-93-183 as precedent for implementing a rate rider to track the annual change in SOP 98-1 revenue requirement. Was that decision associated with a change in accounting, such as compensated absences, vacation accruals or FAS106 accounting for OPEB costs?

A. No. The Court of Appeals decision concerned the resolution of the Directory Imputation issue appealed by USWC following the last Arizona rate proceeding, not the annual revenue requirement effect of a change in accounting method.

Q. Has the Company previously proposed or implemented any rider mechanisms to capture the effect of any accounting changes?

A. No, not that I am aware of. In response to ACC Data Request No. UTI 70-9, the Company specifically indicated that it had not previously sought rate riders to capture the effect of any of the following accounting changes:

- expiration of the amortization of the one-time change in compensated absences;
- year to year changes in pension costs pursuant to FAS87 accounting;
- year to year changes in FAS106 accounting for OPEB costs, including the expiration of the TBO amortization;
- cessation of recording depreciation expense on plant accounts that are fully depreciated; or
- capital to expense shifts resulting from the adoption of the "new" uniform system of accounts prescribed by the FCC (i.e., Part 32).

[ACC Data Request No. UTI 70-9]

As mentioned previously, Mr. Dunkel has also proposed a three-year amortization for the undepreciated investment in Account 2211, Analog Switching Equipment (see Surrebuttal Appendix SCC-5). On an Arizona intrastate basis, this amortization proposal is equivalent to $18 million a year for three years. Maybe the Commission should also consider "tracking" the offsetting effect of this amortization when it expires in three years, if the Company's proposed tracker is given serious consideration.

Q. At rebuttal page 24, line 16, Mr. Redding states:

> "Since adoption of a price cap plan would end rate of return regulation, at least for the term of the plan, the Company could never recover these future cost increases without an automatic rider."

Do you have any information which would help interpret this portion of Mr. Redding's rebuttal testimony?

A. Yes. ACC Staff Data Request No. UTI 70-11 was submitted in order to specifically address this rebuttal testimony. According to the response to this discovery request: Tthe word "'never' is defined at least for the term of a price cap plan. Mr. Shooshan proposes a five year plan." However, this same response indicates that the Company does recognize that its revenues and expenses will change during the term of any price cap plan that may be adopted.

While no one can know with absolute certainty whether a combination of revenue growth, expense decreases and improving productivity may yield earnings gains during any time period or term of a price cap plan, the possibility does exist that other factors could mitigate or completely offset the SOP 98-1 changes that the Company has not suggested be tracked through a rate rider – such as the $18 million annual amortization that expires in three years.

Q. In your direct testimony, you recommend that the Commission reverse the rate base effect of a USWC proforma adjustment to recognize the depreciation reserve and deferred income tax reserve effects of the increase in depreciation expense due to the recent change in book depreciation rates. Is that correct?

A. Yes. The Staff has proposed a fairly stringent cut-off of the test year at the end of December 1999. Because USWC did not commence booking the revised depreciation rates reflected in ACC Staff Adjustment C-15 until subsequent to the 1999 test year, ACC Staff Adjustment B-1 proposes to exclude the proforma effect of USWC's capital recovery adjustment from rate base (i.e., both the accumulated depreciation reserve and accumulated deferred income tax reserve effects).

However, if the Commission were to adopt a rate rider mechanism or otherwise recognize additional changes in revenue requirement occurring subsequent to the test year, the Commission should, at a minimum, reject ACC Staff Adjustment B-1. Other options available for Commission consideration would include forecasting the growth in the depreciation reserve during the term of any adopted rate cap plan or establish yet another rider mechanism to flow the revenue requirement effect of the reserve growth through to ratepayers.

Q. Are you changing your position on the proposed treatment of the depreciation reserve?

A. No. But, if the Commission is inclined to adopt other post-test year changes or implement automatic rate riders, why not expand the scope to include other items as well?

Q. Do USWC's competitors follow SOP 98-1?

A. Yes. SOP 98-1 is applicable to all nongovernmental entities and was effective for financial statements for fiscal years beginning after December 15, 1998.

Q. Does the Company have any information concerning whether its competitors following SOP 98-1 for accounting or product pricing purposes?

A. Apparently not. The response to ACC Data Request No. UTI 70-10 indicates that the Company does not know how or whether its competitors recognize SOP 98-1 for regulated accounting or product pricing purposes. The Company's lack of information is in stark contrast to Mr. Redding's rebuttal testimony on image advertising/ sports sponsorship costs. At rebuttal page 39, Mr. Redding states: "Every large company I can think of, regardless of industry, engages in image advertising and includes in its price an element of that cost."

POST-TEST YEAR WAGE & SALARY INCREASES

Q. At page 27 of his rebuttal testimony, Mr. Redding disagrees with your direct testimony at page 69 where you state: "In a sense, the update of the test year from June 1998 to calendar year 1999 is an exercise encompassing an 18 month known and measurable period update." Do you have any comments on Mr. Redding's characterization of your testimony?

A. Yes. Mr. Redding characterizes this testimony as "incredible," "nothing could be farther from reality," and "pure obfuscation." Obviously, Mr. Redding and I disagree on this subject. The Company has sought recognition of the post-test year wage and salary increases on a piecemeal basis, attempting to find solace in not recognizing any changes to volumes subsequent to the test year.

The fact remains that every element of the ratemaking equation will and does change over time. The purpose of this portion of my testimony was to point to both the Company's original and update filings so as to observe that, despite an 18 month change in the test year, USWC's overall revenue requirement resulted in a fairly limited change – a fact not addressed by Mr. Redding. Wage and salary rates also changed during that 18 month period, but so did other prices and other volumes. As stated at page 69, lines 13-15, of my direct testimony, the net effect of this test year updated process resulted in "...a fairly limited change in the Company's filed revenue deficiencies – evidence demonstrating why piecemeal ratemaking should be avoided."

Q. At page 27, line 15, Mr. Redding appears to be rebutting a statement you made that is inconsistent with Mr. Brosch. Do you recall stating in direct testimony that the Staff has made no out-of-period adjustments?

A. No. I do not recall any such testimony. Unfortunately, Mr. Redding does not provide a citation to the testimony he purports to rebut. In any event, I have attempted to be careful in characterizing the Staff's approach as using a "relatively stringent" test year cut-off. This

phraseology appears on pages 15 and 68 of my direct testimony. Presumably, Mr. Redding was intending to rebut my testimony at page 68.

Q. Do you deny that the Staff has proposed to recognize certain changes that have or will occur subsequent to the test year?

A. No. I do not and have not taken such a position. Referring to page 15 of my direct testimony, I state:

> While the Staff has endeavored to apply a relatively stringent test year approach in order to consistently value the various components of the ratemaking equation, there are unique circumstances currently affecting the Company's operations which deserve and demand recognition in the quantification of overall revenue requirement. As the Commission is aware, the Company has negotiated, but not yet closed, an agreement to sell certain rural Arizona exchanges. Also, the pending rate proceeding is the result of a lengthy docket before this Commission concerning various revisions to USWC's Arizona depreciation rates, which was not concluded until after the 1999 test year. Further, the Company initiated a separate proceeding to transfer certain broadband assets to a non-regulated affiliate. Although the procedural schedule in the latter proceeding has been delayed, each of these matters uniquely affect the Company's operating results in the State of Arizona.
>
> Beyond adjustments for the exchange sale, depreciation accrual rates and broadband transfer, the Staff has proposed specific adjustments to annualize discrete, identifiable components of revenues and expenses to test year-end. Although the Company may attempt to characterize this approach as "picking and choosing" or leading "to a great deal of mischief," it is important to recognize that some revenues and expenses are reasonably stated at actual recorded levels, in the absence of detailed information demonstrating otherwise.
> [Carver Direct, p.15, Emphasis Added]

I chose brevity at page 68 of my direct, rather than restate what was already said earlier. In any event, I do not believe that my testimony at page 68 contradicts this excerpt from page 15. Further, the wage and salary increases granted in the year 2000 are neither unique nor compelling. The Company has a long history of granting annual increases in this manner.

Q. At page 28 of his rebuttal testimony, Mr. Redding introduces excerpts from your response to an unidentified discovery request in the pending New Mexico rate case to conclude that you have contradicted your own position. Is that true?

A. No. It is now Mr. Redding who tries his hand at obfuscation. My direct testimony does not state that no adjustments outside of the test year are ever warranted or adopted by other commissions. While Mr. Redding does accurately quote from my response to Data Request No. USW 02-202 in Utility Case No. 3008 currently pending before the New Mexico Public Regulation Commission, the excerpt is too selective, so as to be misleading. Surrebuttal Appendix SCC-1 represents a reproduction of the Company's interrogatory and my response in its entirety. The following bullet points more consistently summarize and highlight the nature of the full response contained in this appendix:

- The test year provides the commission's staff with auditable data.
- For rate-making purposes, only just and reasonable expenses are allowed.
- The commission must have a basis for estimating future revenue requirements, which is one of the most difficult problems in a rate case.
- A commission sets rates for the future, but has only past experience (expenses, revenues, demand conditions) to use as a guide.
- Philosophically, the <u>strict test year</u> assumes the past relationship among revenues, costs, and net investment during the test year will continue into the future. If these relationships are not constant, <u>the actual rate of return earned by a utility may be quite different from the commission allowed rate</u>.
- Commissions have adjusted test-year data for "known changes" that actually took place <u>during or after the test period</u> (such as a new wage agreement that occurred toward the end of the year).
- Due largely to inflation, a few commissions have modified the traditional historic test-year approach by using a forward-looking test year (either a partial or a full forecast) or by permitting pro forma expense <u>and revenue</u> adjustments.

[Surrebuttal Appendix SCC-1, Emphasis Added]

In my opinion, the test year portion of my direct testimony as well as my comments on page 68 are consistent with the spirit and intent of Surrebuttal Appendix SCC-1.

Q. At page 28, line 17, Mr. Redding states that out-of-period wage and salary adjustments qualify as known and measurable changes. Do you agree?

A. There is no question that these increases are known and can be measured. But the real issue is whether they should be recognized for regulatory purposes. Mr. Redding then proceeds to argue that I do not know what a test year is all about, tries to split hairs about terminology and points to his earlier quotes from the publications of others to support his contention.

Regulatory commissions have various test year approaches from which to choose in setting rates:

- Historic test years may rely on an average or year-end approach.
- An end-of-period historic test year may be coupled with a fixed, or predetermined, post-test year update period (e.g., 6 months beyond test year-end) within which all material known and measurable changes (both price and volume) are eligible for consistent recognition.
- Forecast test years may be fully or partially projected, including a combination of historic and forecast data.

The ultimate objective in selecting from this menu of test year options is the establishment of rates for the future that will provide the utility with an opportunity to earn a reasonable return on investment. Regardless of the test year approach, the various components of the ratemaking equation must be reasonably balanced – an objective agreed to by Mr. Redding at rebuttal page 30. USWC has sought to reach out beyond the test year for only wage and salary increases, in spite of the fact that similar increases occurred subsequent to the Company's original filing in this proceeding (based on the 12 months ended June 1998) but USWC's update filing (using the 12 months ended December 1999) resulted in "...a fairly limited change in the Company's filed revenue deficiencies."

Q. Do you have any final comments on this portion of Mr. Redding's rebuttal testimony?

A. Yes. Beginning at page 29, line7, Mr. Redding indicates that volumes can be adjusted outside of a historic test period, but the test year becomes a forecasted test year which is contrary to

Arizona Commission tradition. Although I do not agree with this view of what constitutes a forecast test year, there are two points which I believe are worthy of brief comment.

First, Mr. Redding quotes Dr. Alfred Kahn at page 5 of his rebuttal. One of Dr. Kahn's observations was that even reliance on historic test year data "fully verifiable and verified, graven in stone" is a form of projecting or estimating future costs. In this spirit, the recognition of any test year or post-test year changes is a form of projection or forecast of future conditions.

In response to ACC Staff Data Request No. 70-13, Mr. Redding states that his understanding of a forecasted test year is a "year based on estimates of revenues, expenses and investment rather than actual results." Even the recognition of a volume change one day beyond the historic test year would result in a forecast test year, according to the response to this discovery request. So, it would then appear that the Company has offered a forecast test year for the Commission's consideration, contrary to Arizona tradition, because it is based on estimates rather than actual costs.

Second, Mr. Redding quotes from several authors (pages 4 through 8 and page 28) on the subject of test year selection and post-test year known and measurable changes. None of these quotations state, suggest or imply that it is appropriate or permissible to reach out beyond the historic test year for the piecemeal recognition of isolated changes to the exclusion of all other known and measurable changes occurring during a similar time frame. Although the Staff has not suggested such an approach, it appears that Mr. Redding has attempted to construct a framework, relying on theories offered by others, to justify the Company's piecemeal approach to the year 2000 wage and salary increases.

Q. At rebuttal pages 26 and 30, Mr. Redding refers to and concurs with a correction adjustment proposed by RUCO witness Larkin. Were you aware of the need to correct an error in the Company's update filing?

A. Yes. The existence of this error was confirmed in the Company's response to ACC Staff Data Request No. UTI 46-4. Because of the Staff's proposal to eliminate USWC's entire post-test year wage and salary adjustment, it was unnecessary for the Staff to correct the Company's updated proforma adjustment for the August 2000 occupational increase. However, if the Commission does not concur with the Staff's proposed out-of-period elimination adjustment, it would be necessary and appropriate for the Commission to alternatively recognize this correction of the Company's adjustment.

Q. Do you have any further information concerning the subject of changes occurring subsequent to the test year?

A. Yes. On September 7, 2000, Qwest Communications International, Inc. announced that it will cut 11,000 jobs by the end of 2001 in an effort to lower costs and streamline operations. Qwest indicated that 4,500 of the jobs will be eliminated by the end of 2000, with the reduction of the remaining 6,500 positions occurring in 2001. Qwest plans also include the elimination of about 1,800 free-lance jobs by the end of 2001. According to information available at the time this testimony was finalized, the Company raised its revenue projections for full-year 2000 and 2001.

So, as the landscape continues to change, so do the "costs" underlying the provision of Arizona telecommunications service. While Arizona specific data is not available at this time, I can not help but wonder if the Company will suggest a separate rider or tracker mechanism to capture the Arizona portion of any resulting cost savings for the benefit of its regulated customers.

IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP

Q. Beginning at page 35, Mr. Redding's rebuttal testimony disagrees with your recommendation to exclude image advertising and Olympic/ sports sponsorship costs from revenue requirement. Specifically, he argues that: "image advertising supports the sale of all products...product-specific advertising is incomplete without the complementary image advertising...as competition grows and the public hears more brand names associated with telecommunications, image advertising becomes increasingly important..." How do you respond?

A. There are several points that merit consideration. I certainly understand the Company's concern about the public hearing more names associated with telecommunications. After all, during the test year, the Company spent almost [redacted] (Arizona intrastate) or about [redacted] (Total Arizona) to promote the U S WEST brand name. [See ACC Staff Adjustment C-27.] Now, the Company is trying to promote the Qwest brand and image to the public.

During the 1999 test year, the Company also spent about [redacted] (Total Arizona) on product advertising, which the Staff has not proposed to adjust or otherwise disallow. In order to evaluate the effectiveness of its product advertising, the Company's Consumer Services Group ("CSG") compiles campaign effectiveness reports to determine which product campaigns receive future funding. According to Company responses to Staff discovery, these campaign effectiveness reports are prepared to:

- evaluate the return of each campaign, compare returns from each campaign and to determine which campaign with modifications will be implemented for the future, and
- allow CSG to establish a priority of campaigns to maximize limited advertising and promotional budgets.

[ACC Staff Data Request Nos. UTI 71-3 and UTI 71-4]

Interestingly, the Company does not appear to analyze the "effectiveness" of promoting its "image" or even consider such promotional costs in evaluating the success of its product

campaigns – even though the cost of image promotion was about 64% of the Company's product advertising costs during 1999.

Q. At rebuttal pages 36 and 37, Mr. Redding quotes from a June 1999 publication that discusses brand advertising. Have you reviewed this pubication?

A. No. In response to ACC Staff Data Request No. UTI 71-6(a), the Company identified the source as a copyrighted work, indicating that Qwest had no right to copy or reproduce the word. Since the receipt of the Company's rebuttal testimony, I have had no time to locate, purchase and review this document.

Q. At line 14 of page 36, the quote selected by Mr. Redding starts with the phrase:

> "The market is hopelessly crowded. As a result: BRANDING IS MORE – NOT LESS – IMPORTANT THAN EVER...."

Do you know what "market" the author is referring to?

A. No. Mr. Redding's selective quotations provide no clues as to whether this is a generic statement that encompasses all business markets or is specific to telecommunications or some other specific business segment. However, the response to ACC Staff Data Request No. UTI 71-6 leads me to believe that the reference to "the market" is a general one. According to Mr. Redding, the cited publication was neither prepared for or at the request of the Company nor prepared for or in the context of the telecommunications or utility industries.

Q. At page 35 of his rebuttal, Mr. Redding quotes from your testimony and indicates that the Staff's disallowance is based on an incomplete chain of logic. How do you respond?

A. It is the Company that misses the point. As stated in my direct testimony, "USWC has not demonstrated that promoting its imagery in a favorable light will influence growth in business or residence access lines or customer decisions to purchase other discretionary services."

Regulatory agencies have been fairly consistent in disallowing the cost of non-product, image or goodwill advertising for many years. In fact, the ACC disallowed USWC's image

advertising costs in the last rate case (Decision No. 58927, page 30, Docket No. E-1051-93-183). More recently, the Public Service Commission of Utah addressed this issue and rejected recovery of such costs in rates, as discussed in the following excerpt from the order in USWC's most recent Utah rate proceeding:

> To decide this issue we evaluate two propositions. The first concerns whether the ratepayer-benefit test remains appropriate. If so, the second asks whether the Company met its burden to show that ratepayers did benefit sufficiently to permit recovery of the expense. Much of the Company's testimony argues that the ratepayer-benefit test no longer is appropriate, but we are not persuaded. The testimony does not show why a regulated firm's discretionary expenditure to enhance its corporate image should be recovered from ratepayers, particularly when this Docket must be adjudged in the traditional regulatory manner. We therefore reaffirm our previous ruling that corporate or external advertising expense is not recoverable in rates. The Company has not shown unambiguous ratepayer benefit. The argument that customers gain from advertising calculated to make them feel better about the Company is not persuasive. [UPSC Docket No. 97-0419-08, issued December 4, 1997]

Also, the Washington Utilities and Transportation Commission issued an order in a USWC rate case (Docket No. UT-950200) in early 1996. The portion of the order addressing the WUTC's findings on image advertising is reproduced below:

> The Commission accepts the Commission Staff proposed adjustment to remove the image advertising but not the allocated supervision. There appears to be little contest as to the specifics of the advertisements in question. Corporate image advertising is not shown to benefit the ratepayers. It is appropriately disallowed in telephone rate cases.
> [WUTC Docket No. UT-950200, Fifteenth Supplemental Order]

Nowhere in Mr. Redding's rebuttal testimony does the Company provide any quantification of the effectiveness of or ratepayer benefits derived from its test year expenditures for image advertising or related support for sports sponsorships.

Q. At rebuttal page 37, Mr. Redding indicates that your proposed disallowance of Olympic and sports sponsorship costs contain the same logic error as these activities "are really extensions of image advertising." Do you agree?

A. I do agree with Mr. Redding that the Company's Olympic and sports sponsorship activities are "extensions of image advertising" – that is why ACC Staff Adjustment C-27 combined the cost of these activities with image advertising in quantifying the Staff's recommended disallowance. However, I disagree with the "logic error" comment, for the reasons discussed previously.

FCC DEREGULATED SERVICES

Q. Referring to page 45 of Mr. Redding's rebuttal testimony, he states that he agrees with the financial end result of the Staff's two adjustments to include the FCC deregulated products in revenue requirement, but not with your methodology. Have you reviewed that testimony?

A. Yes. It does appear that Mr. Redding and I agree on the "end result" but not the methodology. So, I am uncertain whether there really is any revenue requirement issue, per se, for the Commission to address.

Q. What two adjustments is Mr. Redding referring to?

A. There are actually three Staff adjustments related to the FCC deregulated services issue that are discussed in my direct testimony. Beginning at page 77, I discuss ACC Staff Adjustment C-17 which concerns the imputation of sufficient additional revenues to ensure that the earnings deficiency associated with FCC deregulated services are <u>not</u> borne (or cross-subsidized) by the remainder of USWC's Arizona customers subscribing to the Company's intrastate regulated products and services.

At page 98, I also discuss ACC Staff Adjustments C-18 and B-7 which exclude USWC's above-the-line recognition of the FCC Deregulated Services from the calculation of composite, intrastate jurisdictional separation factors used in computing the intrastate share of the individual adjustments posted to rate base and operating income.

It is these three adjustments that I believe Mr. Redding was intending to reference.

Q. Given the nature of Mr. Redding's rebuttal testimony on this matter, do you have any final comments?

A. Yes. At pages 98-99 of my direct testimony, I discuss the rationale for ACC Staff Adjustments B-7 and C-18 and state that the quantification of these adjustments assumed that the

Commission would adopt all adjustments proposed in the direct testimony of the Company and the Staff. I go on to state that should the Commission ultimately reject or revise certain adjustments, it would be necessary to recalculate these ACC Staff adjustments for consistency with other Commission findings. Because of the magnitude of the Staff's proposed adjustment for SOP 98-1 (internal-use software), it is imperative that these separation adjustments (i.e., ACC Staff Adjustments B-7 and C-18) be updated and revised to conform with the Commission's final decisions on other ratemaking issues.

INCENTIVE COMPENSATION

Q. Beginning at page 3 of his rebuttal testimony, Mr. Grate discusses the proposals of Staff and RUCO on the recoverability of incentive compensation costs. Have you reviewed this testimony?

A. Yes. I have reviewed Mr. Grate's rebuttal testimony.

Q. Referring to page 5 of Mr. Grate's rebuttal testimony, he indicates that he does not oppose the removal of the test year expenses associated with LTIP, because this plan has expired and been replaced with a plan that will not generate any operating expense. Does this mean that Mr. Grate is recommending that the test year costs of this plan be eliminated?

A. Initially, I interpreted this portion of Mr. Grate's rebuttal testimony as concurring with the Staff's proposed elimination of the test year LTIP costs. However, the responses to ACC Staff Data Request Nos. UTI 71-1 and UTI 71-8 appear to indicate otherwise. It seems that the Company now believes that the test year incentive compensation costs are, in total, below the level the Company believes will be ongoing. So, Mr. Grate did not recommend the elimination of such costs. Based on this response, it appears that the Company is continuing to seek the recovery of expenses it will no longer incur, which is inconsistent with Mr. Grate's testimony on this issue in the pending New Mexico rate case.

Q. At rebuttal pages 5 through 7, Mr. Grate describes his opposition to the disallowances recommended by Staff and RUCO. Do you have any general comments on this testimony?

A. Yes. As indicated in my response to Company Discovery Request USW 2-38, it is my opinion that the ABP, STIP and LTIP incentive compensation plans do not result in costs that are reasonable to be borne by the Company's Arizona ratepayers. While the rationale for my opinions are presented in direct testimony, my conclusions are based on two basic premises that are first introduced at page 39 of my direct testimony.

The incentive compensation plan costs that the Staff has recommended be disallowed are primarily driven by corporate-wide financial results or surveys of customer perceptions of the Company. In general terms, these corporate-wide goals and objectives do not address or define specific service quality measures or performance expectations that are unique to the specific work activity of the individual Company employee or common groups of employees, which would most directly motivate employee work. The Company has not demonstrated the degree to which the corporate-wide goals and objectives have motivated the broad base of employees to perform at levels unlikely to be attained in the absence of such plans or that the plans have resulted in achievements benefitting Arizona ratepayers that could not have been attained without such plans.

Q. To what degree has the Company's incentive compensation plans improved financial performance, cash flow, cost cutting initiatives, productivity or reduced capital costs that would not have occurred in the absence of the incentive compensation plans?

A. I am unable to provide any definitive answer to that question. Through a series of discovery responses following the receipt of the Company's rebuttal testimony on this issue, the Company was requested to identify and quantify this very information. [See Company responses to ACC Staff Data Request No. UTI 71-10 through UTI 71-14.] The Company generally responded to these discovery requests stating: "Qwest does not possess the requested information. Qwest could not develop the requested information without a special study." A copy of these responses are provided as Surrebuttal Appendix SCC-2.

Q. In your opinion, should the Company have had this type of information readily available to provide in response to the Staff discovery?

A. At page 8 of his rebuttal testimony, Mr. Grate states, in part: "Incentive compensation is used to motivate employees to, among other things, improve financial performance and accomplish strategic objectives." Although I did not necessarily expect information responsive to each of these discovery requests, I am rather surprised that the Company was unable to provide any

data to demonstrate the tangible benefits it implies has been realized in Arizona from the existence of these incentive programs – that would not have been otherwise achieved – as support for the positions offered by Mr. Grate.

Q. At rebuttal page 20, Mr. Grate also states:

> "However, the point and purpose of financial performance incentive compensation is to motivate employees to achieve higher levels of financial performance than they would be motivated to achieve absent the incentive. When employees respond to that motivation and succeed in achieving better financial performance, employees, shareholders and ratepayers all prosper together."

Have any studies or analyses been prepared by, or for, the Company which demonstrate that employees have responded to this "motivation" and achieved better financial performance than could have been realized in the absence of the incentive compensation plans?

A. This question was posed to the Company through ACC Staff Data Request No. UTI 71-23. The only information supplied by the Company was a two-page excerpt from the 2000 Hay Compensation Information Services report (the "Hay Report") on short-term incentive plans, representing a compilation of survey information from 196 participating companies. This information was not specific to USWC/Qwest and provided no direct evidence establishing a cause and effect relationship between the specific financial objectives of the Company's ABP or STIP and improved financial results.

Although the narrative portion of the Company's response to ACC Staff Data Request No. UTI 71-23 pointed to this Hay Report stating that 50% of the companies surveyed believed that their short-term incentive plans were successful, the information supplied also indicated that 38% of the employees surveyed also believed that their companies' incentive plans need significant improvement.

Q. Referring to page 7 of Mr. Grate's rebuttal testimony, he states that "...nothing justifies disallowing the cost of the incentive compensation of that employee because the work the employee does cannot be divided between work for incentive pay and work for all other forms

of compensation." Have you suggested that the disallowance of the cost of the Company's incentive compensation plans can be justified on this type of basis?

A. No, I have not. Through the discovery process, the Company did ask me a related question (i.e., Company Discovery Request USW 2-1. The full text of that question and my response is reproduced as Surrebuttal Appendix SCC-4.

Q. At rebuttal pages 9-13, Mr. Grate introduces and discusses an illustration. At page 9, he indicates that this illustration will "demonstrate mathematically the process by which the benefit of improved financial performance inures to ratepayers." Have you reviewed that illustration?

A. Yes.

Q. At page 11 of his rebuttal testimony, Mr. Grate's illustration assumes that the two utility companies will end up paying exactly the same level of compensation to their respective employees. Was it Mr. Grate's intent to imply that USWC/ Qwest would have historically paid its employees exactly the same level of compensation with or without the incentive compensation plans?

A. No. According to the response to ACC Staff Data Request No. UTI 71-15, the purpose of this presentation was purely for illustration purposes. As a result, it should not be interpreted as a representation of the relative impact on the Company's financial results – with or without incentive compensation plans.

Q. In the context of this illustration, was it Mr. Grate's intent to imply that the expenses of USWC/ Qwest have always been lower historically as a direct result of its incentive compensation plans?

A. No. This question was also addressed by the Company's response to ACC Staff Data Request No. UTI 71-16. Again, this presentation was purely for illustration purposes and should not

be considered indicative of the Company's operations – with or without incentive compensation plans.

Q. Mr. Grate provides the following statement at page 22 of his rebuttal testimony:

> "Qwest adopted the CVA as a measure of service quality because the Company believes it directly measures customer satisfaction. Mr. Carver apparently believes that as measures of service quality, surveys are inferior to direct measures. Placing his own judgement about the best way to measure service quality above the judgement of Qwest's management, Mr. Carver concludes that management use of surveys instead of direct measures justifies disallowance. While Mr. Carver may prefer direct measures of service quality, he has not shown why his own judgement should be substituted for the judgement of Qwest's management in deciding how to measure service quality for purposes of paying incentive compensation. Nor has he offered substantial reasons that would demonstrate that service quality surveys are defective as measures of service quality such that they justify a disallowance."

Do you have any comments concerning Mr. Grate's rebuttal testimony on this subject?

A. Yes. I have not attempted to place my judgement above that of the Company's management, as Mr. Grate suggests. Instead, I have reviewed the structure and objectives of the Company's incentive plans and provided a recommendation to the Commission as to whether such costs are reasonable and should be borne by the Company's regulated customers. It is the Commission that will render a judgement on this issue, not I.

It is true that I believe that the CVA surveys are inferior to direct measures of service quality. This opinion was not formed in a vacuum, without considering information unique to the Company's survey process, as Mr. Grate seems to imply. According to the response to Data Request No. UTI 26-4, the CVA was not initially developed for compensation purposes. Instead, the CVA survey was to "help marketing and operations assess the company's relative strengths and weaknesses versus competition to make changes based on customer input." The primary applications for the CVA included: marketing, strategy, operations improvements and new product opportunity assessment.

The response to UTI 26-4 also stated that the CVA was introduced into compensation in 1998, about two years after the initial CVA pilot program, in order to reflect:

1. direct customer feedback on overall performance using surveys, rather than internal measures,
2. a comparison of the Company's performance versus competition,
3. the Company's relationship with its customers (service quality, price, product, brand) and
4. future market performance.

So, by integrating the CVA surveys into the incentive compensation structure, the Company explicitly eliminated the more traditional measures of service quality from direct consideration in exchange for customer and non-customer perceptions of the Company.

In this context, the Company's response to UTI 26-3 provided additional information of interest. First, customers who do not have any interaction (i.e., service installations, changes or billing questions) with the Company give the Company higher ratings than customers with recent interactions. Second, those customers with recent service interaction rate the Company's performance 5-10% lower. Third, nearly 40% of the Company's residential customers do not have any service or billing interaction with the Company during a six-month period. Fourth, brand or non-product advertising is viewed as one of the key drivers in creating value and can significantly enhance brand reputation and impact CVA scores.

So, the CVA surveys reflect perceptions that can be significantly influenced by interaction with the Company and by brand advertising campaigns. More "traditional" measures of service quality address the Company's ability to get the service installation or repair done right the first time and in a timely manner.

Q. At page 23 of his rebuttal, Mr. Grate states:

> "Instead of complaining that the 1999 STIP and ABP did not pay out on three of the five service quality measures, Staff should approve of the discipline with which Qwest executed its incentive compensation plans. The total cost of incentive compensation

> in the test year is substantially less than it would have been had all service quality targets been met. This lower level of cost shows that Qwest's incentive compensation plans have teeth. Instead of being grounds to disallow the service quality components, this test year cost savings resulting from rigorous application of the standards in the plans should be grounds for applauding the high standards of service quality the Qwest's plans have set and enforced."

Do you care to respond?

A. Mr. Grate offers some interesting observations, but none that are particularly useful in assessing the reasonableness of the service quality components of the Company's incentive plans. As indicated in the response to ACC Staff Data Request No. UTI 71-25, even Mr. Grate is not suggesting that it would have been reasonable or acceptable for the Company to apply its own service quality standards in any way other than rigorously. Any other application would have made a mockery of the process.

The perceptions of customers and non-customers throughout the Company's 14-State service territory does not directly address the quality of the service actually rendered or delivered in the State of Arizona. To the extent that Arizona customers are being asked to pay for the cost of improving service quality, both the costs sought for recovery and the improvement in quality should be based on Arizona operations – not costs or improvements in other State jurisdictions much less Company-wide perceptions that may not directly translate into the provision of higher quality Arizona service.

Q. Referring to the bottom page 23 and the top of page 24, Mr. Grate states in rebuttal:

> "Mr. Carver's argument that the service quality component of the STIP and ABP should be disallowed because the plans are too heavily weighted towards financial criteria makes no sense. First, Mr. Carver offered no reason why the plans' service quality components should be considered poisoned by the financial components. Further, in an attempt to support his position, Mr. Carver measures the weighting of the payout instead of the weighting of the plans. Because Qwest conscientiously enforced the service quality standards in the plans they paid out relatively little for service quality. Consequently, the 1999 plan payouts are weighted more heavily towards financials than are the base line criteria in the plans themselves. Inexplicably, Mr. Carver would have the Commission disallow the service quality components of the

> STIP and ABP because Qwest applied them with rigor, and the result is a relatively low payout for service quality in the test year."

How do you respond?

A. It is true that the Company paid out less for the "service" components of the ABP and STIP during 1999, because the objectives were not achieved. However, these plans are so heavily weighted towards financial criteria that excellent financial results could largely overcome unacceptable service quality in determining plan pay-outs.

Referring to pages 45 and 48 of my direct testimony, the STIP and ABP contain a 60% weighting of corporate financial results. Ignoring the portions of the Individual Business Unit objectives included in the ABP that are also reliant on financial results, employees participating in the Company's 1999 STIP and ABP could still achieve a near-target total bonus from exceptional financial performance even if no bonus is achieved for service quality.

Q. How did you make this determination?

A. Confidential Attachment J of the response to ACC Staff Data Request No. UTI 60-11 indicated that the maximum financial component pay-out for the 1999 STIP was [redacted]. Since 60% of both the STIP and ABP are based on corporate financial measures, employees could achieve a [redacted] pay-out (i.e., 60% financial weight times [redacted] maximum achievement) as compared to a 100% pay-out if the targets for both the financial and service quality components were met. Clearly, the weighting of the plan is an important factor in determining plan payouts.

Q. Mr. Grate also provides the following statement at page 24 of his rebuttal testimony:

> "Finally, Mr. Carver observes but fails to acknowledge the significance of the fact that company wide measures of service quality performance include Arizona among the 14 states measured. The weighting of the service quality results reflects the size of Arizona's operations in proportion to the size of the Company's 14 state operations. Likewise, the cost of these plans charged to Arizona operations reflects only the cost of Arizona operations, not the cost of the Company's total 14-state operation. Mr. Carver may prefer that the Company operate 14 separate incentive compensation plans, but his preference is hardly justification for disallowing their costs."

Do you have any comments on this testimony?

A. Yes. The Company's Arizona test year operating expenses include an allocation of the cost of the 1999 ABP and STIP incentive compensation plans. The costs of these plans are considered in the development of the Company's overall revenue requirement and based on corporate-wide targets and objectives, not Arizona specific targets and objectives. Both the financial and service quality measures, not just service quality, are based on Company-wide objectives. So, my concerns in this regard apply to both of these major elements of the ABP and STIP.

Referring to the responses to ACC Staff Data Request Nos. UTI 18-26 and UTI 25-5, the financial components of the Company's incentive plans are based on corporate results, not State results. Although individual State operations are part of the total corporate operations, the Company has indicated that individual State results are not separately tracked, are not specifically considered and are not available.

Similarly, the response to Data Request No. UTI 18-27 indicated that the service quality components of the incentive plans are also based on total Company measurements. More specifically, item (c) of UTI 18-27 sought additional information comparing the relative service quality achievements of the Arizona operations with the Company's consolidated operations. The Company responded by simply stating: "No state results are used for the calculation."

Since Arizona only represents about 15% of the Company's consolidated operations, the corporate-wide <u>benefits</u> alleged to result from these plans (e.g., improvements in financial condition or perceptions of the Company) are not necessarily realized or realizable in Arizona – because Arizona does not necessarily mirror the Company's consolidated operations. However, the accounting allocation of the costs of these plans basically assumes that Arizona's achievements and benefits are proportional.

Incentive plans are typically designed to motivate or improve employee performance. Because the Company's Arizona operations are only about 15% of the consolidated operations, stellar (or dismal) performance in Arizona would likely have limited impact on the consolidated results under the incentive plans. As a consequence, Arizona employees could perceive diminished incentives because the State's results are commingled with and diluted by those of the other 13-State operations, either positively or negatively.

Based on the responses to discovery submitted during this proceeding, the Company has stated that it does not maintain and has been unable to otherwise supply the information necessary to compare Arizona's achievements relative to those of the total Company operations. Because of the structure of the incentive plans and the cost allocation process employed, employee pay-outs and the apportionment of costs to Arizona are not based on the financial or service achievements attained in Arizona.

Q. Turning to Mr. Grate's rebuttal testimony beginning at page 28, he criticizes the Staff's position on the business unit component of the ABP as follows:

> "Mr. Carver, on the other hand, asserts he is unable to reach any conclusion about any of the business unit goals because he lacks sufficient information to evaluate the reasonableness of the business unit component of the ABP. He makes this allegation despite the fact that Attachment H in the response to Data Request No. UTI 60-11 contains over 60 pages of information that cover each business unit that charged costs to Arizona regulated operations. He asserts that in order to render an opinion, he must have copies of communications by business units to employees about the business unit goals and takes Qwest to task for not providing it. [Carver, p. 50, line 16 to page 51 line 2] Because he did not get what he wanted, he proposes to disallow all of the cost of the business unit portion of the ABP. [Carver, p. 49, line 10 to page 51 line 2.]"

> "Exhibits PG-2 and PG-3 respectively are the responses of which Mr. Carver complains to Data Request No. UTI 53-02 and Data Request No. UTI 60-11. To the best of my knowledge and belief, the responses provided to these data requests are true and correct. They apparently provide enough detail for at least one witness hostile to Qwest to render an opinion on them."

Do you care to respond?

A. Yes. Mr. Grate's rebuttal testimony only discusses part of the story underlying the business unit component of the ABP. ACC Staff Data Request No. UTI 53-2 sought information concerning the incentive compensation plans offered to U S WEST, Inc. personnel in 1999. ACC Staff Data Request No. 60-11 was submitted to update the Company's earlier response to ACC Staff Data Request No. 2-17 for information on the Company's incentive compensation plans in effect during calendar year 1999. Mr. Grate fails to mention that the responses to these two discovery requests were received by UTI on July 31, 2000 – days before the filing of Staff's direct testimony.

Mr. Grate chose to attach the responses to ACC Staff Data Request Nos. UTI 53-2 and UTI 60-11 to his rebuttal testimony as Rebuttal Exhibits PG-2 and PG-3, respectively. Although these rebuttal exhibits are voluminous, the specific business unit information is largely limited to a general listing of the performance targets, weighting factors and achieved results for the 1999 plan year. In some instances, this data provides an explanation of the business unit targets while other business unit summaries only provide a "one line" listing of each objective.

As stated in my direct testimony, the Company has not supplied any specific documentation of its communication of these objectives with the employees of each business unit. It is my contention that this type of employee communication could be of value in assessing the linkage of the business unit objectives with the work actually performed by the respective employees. Without such data, it is impossible to determine whether such communications conveyed meaningful information.

In order to further evaluate Mr. Grate's rebuttal testimony and follow-up the response to ACC Staff Data Request No. UTI 60-11 (Rebuttal Exhibit PG-3), ACC Staff Data Request No. UTI 71-31 sought additional information concerning the general duties, responsibilities and business objectives of each individual business unit. In my opinion, this information would have provided another approach to assess the linkage of the ABP business unit objectives with

the overall duties and responsibilities of each business unit through which the Company's employees report. Unfortunately, the Company response basically indicated that this information was not centrally organized and was not available without a special study. The response to ACC Staff Data Request No. UTI 7-31 is attached as Surrebuttal Appendix SCC-3.

Q. Are there any further comments associated with ACC Staff Data Request No. UTI 60-11 (Rebuttal Exhibit PG-3)?

A. Yes. This response contains duplicate information for 13 business units and data for 3 business units that are not allocable or assignable to Arizona. In order to further convey the complexity of the Company's incentive process, expenses for 11 business units do not originate at USWC, but rather at affiliates of USWC whose costs are separately allocated to USWC.

Q. Do you have any final comments concerning Mr. Grate's rebuttal testimony on incentive compensation?

A. Yes. On September 6, 2000, UTI received a copy of the complete 2000 Hay Compensation survey discussed previously in response to ACC Staff Data Request No. UTI 72-1. One portion of this report outlined the reasons that management and employees viewed the plans (short-term and annual incentive plans) as needing improvement. These "reasons" are reproduced below:

Among the reasons that **management** views plans *as needing improvement* are:

- inadequate "line of sight" to individual effort;
- payout/ pay insufficient;
- insufficient tie-in to individual performance;
- no differentiation between individuals (one size fits all);
- goals are unattainable (management trust issues);
- inadequate communication of plan objectives.

Among the reasons that **employees** view plans *as needing improvement* are:

- inadequate line of sight to individual effort;
- poor payout history or rewards too low to incent performance;
- plan design complicated, hard to understand, or inadequately communicated;

- lack of individual performance measures;
- perceptions of unfairness; and
- goals set are unrealistic, unattainable

[ACC Staff Data Request No. UTI 72-1]

According to the responses to several discovery requests received by UTI on September 1, 2000, the Company modified its ABP in January 1999 to incorporate objectives from the Performance Bonus Plan. [See responses to ACC Staff Data Request Nos. UTI 71-37, UTI 71-38 and UTI 71-39.] The following excerpt was obtained from these responses, which believe supports my concern:

> "Results adjustment for PBP" [as reflected in the confidential business unit information supplied in Rebuttal Exhibit PG-3] refers to an adjustment made for Operations and Technologies (O&T) managers on their quarterly Performance Bonus Plan (PBP).
>
> O&T established the PBP for the majority of O&T managers in January 1999 as a replacement for the Annual Bonus Plan (ABP). Budget for the PBP came from the budget that would have otherwise been used for ABP. The aim of the PBP was to focus O&T managers on improving key metrics like, for example, held orders and missed commitments. . . .
>
> The PBP for 1999 had 23 separate sub-plans: one for each of the 14 states and 9 others for centralized and headquarters functions. The intent of having sub-plans was to closely link managers to performance in jurisdictions and functions they served. . . .

As indicated at page 42 of my direct testimony, I have not proposed any disallowance of the cost of the Performance Bonus Plan. Based on the above responses, several of the ABP business unit objectives were modified in 1999 to tie-in with the PBP in order to "focus O&T managers on improving key metrics like, for example, held orders and missed commitments." As a result of this information, I am continuing to review this recent discovery in conjunction with the quantification set forth on ACC Staff Adjustment C-12 for possible further revision. Any modifications will be supplied upon the completion of my review.

FAS87 PENSION ASSET

1 Q. Have you review the rebuttal testimony of Mr. Grate on the pension asset issue?

2 A. Yes, I have.

3 Q. On page 42 of his rebuttal, Mr. Grate testifies as follows:

4 "One of the fundamental accounting concepts that first year accounting students learn
5 is that all assets on a balance sheet must be funded by liabilities or equity. Because
6 Qwest cannot withdraw funding money from the Pension Trust for negative expense
7 and must, instead, debit the Pension Asset, the source of funding for the Pension Asset
8 is Qwest's investors who provide the money to fund debt and equity on Qwest's
9 books."

10 How do you respond to this statement?

11 A. This statement is curious. It is true that fundamental double-entry accounting is based on the
12 concept that debits equal credits. It is also true that, on the balance sheet, total assets must
13 equal the total of liabilities and equity. However, Mr. Grate's implication that only investors
14 supply debt and equity funds to support the pension asset is an oversimplification.

15 First, a substantial component of the "equity" recorded on the balance sheet is comprised of
16 retained earnings or cumulative income retained by the Company. If the negative pension
17 credits have <u>not</u> been flowed through to the benefit of ratepayers, those pension credits would
18 have increased the recorded income and, theoretically, resulted in higher retained earnings.

19 Second, Mr. Grate oversimplifies the accounting process. According to the response to ACC
20 Staff Data Request No. UTI 69-12, the average year-to-date Intrastate net investment at May
21 2000 used for the charts at page 9 of Mr. Redding's rebuttal is approximately $1.63 billion.
22 However, the average Intrastate debt and equity capital from the same 1990 Report processor
23 supplied in response to ACC Data Request No. UTI 42-2 S1, Attachment H, is about of $1.33
24 billion. Clearly, the debit side of the balance sheet equals the credit side of the balance sheet,
25 but the process of matching debits with credits is not a simple as that implied by Mr. Grate.

Q. Referring to page 40, Mr. Grate makes the following statement:

> "As I explained in my testimony concerning incentive compensation, ratepayers always benefit from decreases in costs reflected in regulated results of operations under cost of service regulation. Pension Credits are negative costs that reduce revenue requirement. Because every financial period is a test period (regardless of whether it warrants a case before the Commission), every dollar recorded as Pension Credit has a direct effect on revenue requirement. If revenue requirement changes enough, a rate case and a rates change will be warranted. But whether or not a rate case occurs, and regardless of the outcome of the case, ratepayers always benefit from the revenue requirement dampening effect of Pension Credits."

Do you agree?

A. No. Mr. Grate posits that "ratepayers always benefit" from the Company's recording of pension credits. It does not seem to matter that the pension credits may fluctuate significantly from year-to-year, but ratepayers "always" benefit. If the Commission concurs with this theory, then the "as recorded" approach to ratemaking should be symmetrical. If pension credits "always" benefit ratepayers, would it also seem that positive expenses recorded by the Company are always recovered when recorded "because every financial period is a test period (regardless of whether it warrants a case before the Commission)". Interestingly, Mr. Redding does not appear to concur, as he has proposed a rate rider or tracker to capture the annual change in revenue requirement associated with the adoption with SOP 98-1.

Q. At rebuttal page 47, Mr. Grate states:

> "Mr. Carver's testimony is careful to couch his advocacy concerning the reconciliation requirement as his opinion. Mr. Carver's opinion-that the Company bears a burden of demonstrating through a reconciliation that cumulative Pension Credits (the negative pension expense) have been flowed through to its ratepayers-is not a generally accepted ratemaking principle. If it were, then the other elements of ratebase that are created by expense accruals (Accumulated Depreciation and Accumulated Deferred taxes) would also be subject to the same burden that Mr. Carver would impose on the Pension Asset. In fact, his position directly violates widely accepted ratemaking standards by contravening the rule against retroactive ratemaking."

Do you care to comment on this testimony?

A. Yes. First, the Company has the initial responsibility to present a prima facie case to support its requested rate relief. Once that case has been challenged, I believe that the burden does

shift to the Company to demonstrate that it has a right to include the pension asset in rate base – a burden that I do not believe that the Company has carried in this proceeding.

Second, this Commission determines the "generally accepted ratemaking principles" that apply in Arizona. In the last USWC rate case, this Commission concurred with my testimony on this issue and excluded the pension asset from rate base – concluding that "the Company has not presented sufficient evidence to clearly demonstrate that its shareholders have advanced the excess pension amounts." [ACC Decision No. 58927, page 5] As indicated at rebuttal page 53, Mr. Grate and I hold different opinions concerning the Commission's past findings.

Third, Mr. Grate seems to be critical of the fact that I express my opinions in testimony. This is a rather odd comment, particularly since a witness can only offer facts or opinions. I suppose that Mr. Grate only likes the opinions that are set forth in his rebuttal testimony.

Q. At page 48 of Mr. Grate's rebuttal, he states:

> "Mr. Carver asserts that the widely accepted presumption that accrued expenses have been recovered or flowed through in rates does not extend to Pension Asset. [Carver, p. 132, line 24 through p. 133, line 2] However, he fails to offer any sound reason why Pension Asset should not be subject to the same ratemaking principles that govern the other elements of ratebase."

On rebuttal pages 51-52, Mr. Grate further addresses your proposal using an analogy to reconciling the balance of the accumulated depreciation reserve. How do you respond?

A. I do not agree that such a reconciliation would be necessary or appropriate with regard to accumulated depreciation reserves, which I address briefly at pages 127-128 and 132-133 of my direct testimony.

Costs incurred by a regulated entity are often presumed to be covered by existing rates, regardless whether the cost of service study underlying said rates included a specific allowance for those unique costs. In my opinion and experience, this presumption is based on the premise that cost based utility rates are considered to be just and reasonable until such time as a moving

1 party carries its burden to establish that said rates are no longer just and reasonable (i.e., either
2 too high or too low).

3 Pension accounting changed dramatically with the adoption of FAS87. Prior to that change,
4 most companies (including USWC) based the amount of pension costs distributed between
5 expense and capital accounts on the level of contributions actually made to the pension fund.
6 Since the adoption of FAS87, USWC began recording negative pension costs that can and does
7 vary significantly from year to year. [See the table on page 118 of my direct testimony.]

8 Simply because the Company recorded negative pension costs, should regulators assume that
9 ratepayers have fully participated in and enjoyed lower rates as a direct result of the decrease
10 in recorded costs? If so, does that participation justify increasing rate base so that the utility
11 can earn a return on those "negative" costs through the pension asset? As discussed in direct
12 testimony, I do not believe that those questions should automatically be answered in the
13 affirmative.

14 The Company has sought to include a pension asset in rate base that arose from this accounting
15 change. In order to substantiate the inclusion of the pension asset in rate base, the Company
16 has argued that the associated pension credits have been flowed through to the benefit of
17 customers, thereby resulting in lower rates and investors being out-of-pocket for the
18 cumulative amount of the pension asset. In order to substantiate the claim for rate base
19 inclusion, particularly in light of the history associated with pension accounting, I have
20 proposed that the Company be required to clearly demonstrate that the cumulative pension
21 credits flowed through to ratepayers equal or exceed the cumulative pension asset proposed to
22 be included in rate base.

23 Certainly, regulated entities employ accrual accounting for purposes of recording depreciation
24 expense and maintaining the accumulated depreciation reserve. The depreciation accruals also

vary from year to year. However, unlike pension costs, the typical accounting for depreciation does not result from a radical change in accounting, leading to an newly created asset that is not directly "cash affecting" but which the company seeks to include in rate base.

Depreciation accrual rates change periodically and the level of depreciable plant generally increases over time. However, the depreciation accrual process has existed for many years and has not experienced the radical accounting change fostered by FAS87. Also, represcription changes have often been accompanied by rate proceedings, comparable to the current proceeding, unless the parties desired that the accrual rate change be implemented outside the context of a rate proceeding.

I have not suggested or recommended that the recovery of each and every cost of service item should be reconciled with past ratemaking decisions in establishing the cost of service for future periods. However, if ratepayers are to be required to pay a return through the ratemaking process on a pension asset balance (resulting from the recordation of negative pension costs), I believe that regulators must be assured that ratepayers have fully enjoyed reduced rates or somehow been provided the benefit of the negative costs resulting from the adoption of FAS87. In this context, the change in pension accounting and the requested inclusion of the pension asset in rate base requires a demonstration of ratepayer benefits, as discussed previously; otherwise the pension asset should be excluded from rate base.

Q. Does this conclude your prepared surrebuttal testimony?

A. Yes.

REPRODUCTION OF THE RESPONSE TO USWC DISCOVERY
NEW MEXICO PUBLIC REGULATORY COMMISSION
DOCKET NO. UTILITY CASE 3008

USW 02-202: In reference to the Direct testimony of Mr. Carver at pg. 21 lines 7-18, please provide the authority, regulatory commission orders, textbook passages, accredited scholarly writings, legal cases and other materials supporting Mr. Carver's assertion that in order for the ratemaking equation to function properly the components of the equation, in part, "must be reasonably representative of ongoing levels". Please provide copies of the supporting material.

Response (Carver): Staff objects to the request because the request as posed is overly broad and unduly burdensome. Mr. Carver based the cited testimony on his prior regulatory experience, spanning a period of almost 23 years. The process of exhaustively searching UTI files and reproducing copies of related materials has not been done and would entail the commitment of unreasonable resources.

Specifically preserving and without waiving the stated objections, Staff provides the following response in the spirit of cooperation. See pages 3 through 5 of Mr. Carver's direct testimony as well as the responses to USW 1-19a nd USW 1-160 for specific information concerning Mr. Carver's professional work experience in the regulatory field. Although reference material may be obtained and reviewed from time to time, Mr. Carver does not maintain a compendium of the specific information sought by the interrogatory. Nor did Mr. Carver specifically rely on any particular documents covered by the interrogatory in preparing the cited testimony. While the following excerpts on this subject appear *in publications in the possession of* Utilitech, it should be noted that Mr. Carver does not necessary concur with the compblete writings of the identified authors:

The Regulation of Public Utilities, p 196, Charles F. Phillips, Jr., July 1993.

> "The company, with the concurrence of the commission or its staff, will generally select a 'test year,' frequently the latest twelve-month period for which complete data are available. The purposes of such a test year are as follows. In the first place, the commission's staff must audit the utility's books. For rate-making purposes, only just and reasonable expenses are allowed; only used and useful property (with certain exceptions) is permitted in the rate base. In the second place, the commission must have a basis for estimating future revenue requirements. This estimate is one of the most difficult problems in a rate case. A commission is setting rates for the future, but it has only past

experience (expenses, revenues, demand conditions) to use as a guide. 'Philosophically, the strict test year assumes the past relationship among revenues, costs, and net investment during the test year will continue into the future.' [footnote omitted] To the extent that these relationships are not constant, the actual rate of return earned by a utility may be quite different from the rate allowed by the commission. [footnote omitted] For many years, commissions have adjusted test-year data for 'known changes'; that is, a change that actually took place during or after the test period (such as a new wage agreement that occurred toward the end of the year). More recently, due largely to inflation, a few commissions have modified the traditional historic test-year approach by using a forward-looking test year (either a partial or a full forecast) [footnote omitted] or by permitting pro forma expense and revenue adjustments."

The Regulation of Public Utilities, p 407, Charles F. Phillips, Jr., July 1993.

"The commissions use several methods to deal with the problem of attrition (inflation). First, they may modify or replace the historic or past test-year method by (1) adjusting historic test-year data for 'known changes;' [footnote omitted] (2) using a 'year-end' rate base, rather than an 'average' rate base, for the test period; [footnote omitted] or (3) using a fully 'projected' or 'forecast' test-year approach. [footnote omitted] While a year-end or projected rate base is more representative of the future period for which rates are being set, a year-end rate base creates a mismatch unless revenues and expenses for the test year are adjusted to reflect year-end conditions."

Other publications include: Rate-Making Trends in the 1980's, Public Utilities Reports, Inc., Publishers, December 1988; Public Utility Accounting: Theory and Application, James E. Suelflow, 1979. In addition, Utilitech's resource files include numerous regulatory orders and decisions, some of which address the subject matter of this interrogatory. Further, Mr. Carver has been responsible for developing and presenting regulatory training programs for commission staff's and consumer groups, including the discussion of test year matching and consistency issues in the context of the ratemaking formula.

Arizona
Docket No. T-1051B-99-105
UTI 71-010

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: 010

Re: Grate Rebuttal, page 8 (Incentive Compensation). Mr. Grate states, in part, that: "Incentive compensation is used to motivate employees to, among other things, improve financial performance and accomplish strategic objectives." Please provide the following:

a. Please identify and quantify the improvement in the Company's Arizona financial performance during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

b. Referring to the response to item (a) above, please quantify the relative effect of Arizona's improved financial performance on the Company's consolidated financial results on which the 1999 incentive compensation plans are based.

c. Please identify and quantify the specific strategic objectives that were accomplished in the Company's Arizona operations during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

d. Referring to the response to item (c) above, please quantify the relative effect of Arizona's achievement of the identified strategic objectives on the Company's consolidated results on which the 1999 incentive compensation plans are based.

e. Please provide a copy of all supporting documentation relied upon in responding to this request.

RESPONSE:

a. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

b. See response to (a).

c. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

d. See response to (c).

e. See response to (a) and (c).

Phil Grate
Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

Arizona
Docket No. T-1051B-99-105
UTI 71-011

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: C11

Re: Grate Rebuttal, page 8 (Incentive Compensation). Mr. Grate states, in part, that: "Employees cause improvements in financial performance by improving efficiency. They improve efficiency by innovating to cut costs and improve productivity. This improved productivity is embedded in the test year expenses." Please provide the following:

a. Please identify and quantify the specific cost cutting innovations implemented in Arizona during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

b. Referring to the response to item (a) above, please quantify the relative effect of Arizona's cost cutting innovations on the Company's consolidated costs on which the 1999 incentive compensation plans are based.

c. Please identify and quantify the improvement in productivity achieved in the Company's Arizona operations during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

d. Referring to the response to item (c) above, please quantify the relative effect of the improvement in Arizona's productivity on the Company's consolidated results on which the 1999 incentive compensation plans are based.

e. Please provide a copy of all supporting documentation relied upon in responding to this request.

RESPONSE:

a. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

b. See response to (a).

c. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

d. See response to (c).

e. See response to (a) and (c).

Phil Grate

Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

Arizona
Docket No. T-1051B-99-105
UTI 71-012

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: 012

Re: Grate Rebuttal, page 8 (Incentive Compensation). Mr. Grate states, in part, that: "Improvement in financial performance is the yardstick that measures the tangible results of reduced costs and increased productivity. If financial performance does not improve, then the results have not been achieved. The calculus of the benefit is straightforward. If costs decrease, earnings increase. If cash is spent more wisely, cash flow improves. So financial improvement is the inevitable result of productivity, cost reduction and cash preservation improvements." Please provide the following:

a. Please identify and quantify the specific cost decreases that resulted in earnings improvements in Arizona during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

b. Referring to the response to item (a) above, please quantify the relative effect of Arizona's cost decreases on the Company's consolidated costs on which the 1999 incentive compensation plans are based.

c. Please identify and quantify the specific changes in more wisely spending cash that improved cash flow in the Company's Arizona operations during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

d. Referring to the response to item (c) above, please quantify the relative effect of the improvement in Arizona's cash flow expenditures on the Company's consolidated results on which the 1999 incentive compensation plans are based.

e. Please provide a copy of all supporting documentation relied upon in responding to this request.

RESPONSE:

a. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

b. See response to (a).

c. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

d. See response to (c).

e. See response to (a) and (c).

Phil Grate
Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

Arizona
Docket No. T-1051B-99-105
UTI 71-013

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: 013

Re: Grate Rebuttal, pages 8-9 (Incentive Compensation). Mr. Grate states, in part, that: "The shareholder of a cost-of-service regulated business only gets the benefit of the financial improvement temporarily -- during the period of regulatory lag. Regulatory lag is the period between the time the benefit appears in results of operations and the time it becomes rate effecting, which is the period of one to two years that is required to conduct a rate proceeding (if one is required). When the financial improvement occurs, it becomes part of an historical test period and reduces revenue requirement derived from that test period. So the productivity improvements inure to the benefit of ratepayers in the form of higher test year earnings that lower revenue requirement and, thereby support lower rates for services." Please provide the following:

a. Please identify and quantify the specific Arizona financial improvements that shareholders have benefitted from during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

b. Please identify and quantify the cumulative improvements in Arizona's financial performance that have benefitted shareholders since the test year in the last Arizona rate case that would not have occurred in the absence of the incentive compensation plans.

c. Please identify and quantify the specific reductions in Arizona revenue requirements during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

d. Please provide a copy of all supporting documentation relied upon in responding to this request.

RESPONSE:

a. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

b. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

c. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

d. See response to (a), (b) and (c).

Phil Grate
Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

Arizona
Docket No. T-1051B-99-105
UTI 71-014

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: 014

Re: Grate Rebuttal, page 9 (Incentive Compensation). Mr. Grate states, in part, that: "Similarly, cash flow improvements benefit ratepayers by lowering the cost of capital because investors base the price they require for their capital on the cash flows of the enterprise." Please provide the following:

a. Please identify and quantify the reduction in the cost of capital in the pending rate proceeding resulting from improvements in Arizona cash flow during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

b. Please identify and quantify the reduction in the cost of capital in the pending rate proceeding resulting from improvements in the Company's consolidated cash flow during the 1999 test year that would not have occurred in the absence of the incentive compensation plans.

c. Please identify and quantify the reduction in the cost of capital in the pending rate proceeding resulting from improvements in the Company's consolidated cash flow since the Company's last Arizona rate case that would not have occurred in the absence of the incentive compensation plans.

d. Are improvements in cash flow the primary financial measure that investors rely upon in determining the price they require for their capital? Please explain.

e. Please provide a copy of all supporting documentation relied upon in responding to this request.

RESPONSE:

a. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

b. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

c. Qwest does not possess the requested information. Qwest could not develop the requested information without a special study.

d. Risk, cash flows, and returns available on alternative investments are the primary drivers of investors' required return on capital investments.

"In the most general terms, the value of a firm (and, hence, the cost of capital) depends on the expectations regarding cash flow, the perceptions of risk, and the characteristic of the alternative investments that investors face. All three elements present formidable modeling problems. The cash flow expectations are those of investors who must assess, among other things, the future course of the business and the future action of regulators."

(Howard E. Thompson, *Regulatory Finance*, Boston, MA: Kluwer Academic Publishers, 1991, p. 207)

e. See response to (a), (b) and (c).

Phil Grate
Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

Arizona
Docket No. T-1051B-99-105
UTI 71-031

INTERVENOR: Arizona Corporation Commission Staff (Utilitech)

REQUEST NO: 031

Re: Grate Rebuttal Exhibit PG-3 (Incentive Compensation). Referring to UTI 60-11, Attachment H, the Company provided a listing of weightings, targets and results for 49 (or 39) separate business units. Please provide the following:

a. Please separately identify and describe the general duties, responsibilities and business objectives of each of the 49 (or 39) individual business units.

b. For each of the 49 (or 39) individual business units, please explain the linkage between their respective duties/ responsibilities and the sub-component target objectives and weightings.

RESPONSE:

a. Qwest has no central repository where the general duties, responsibilities and business objectives of each business unit is identified and described. The requested information could not be obtained without a special study.

b. Qwest objects to this portion of request UTI 71-31 on the grounds that the request for "linkage" is vague. Notwithstanding this objection, Qwest responds that it has no central repository where the linkage between business units' respective duties/ responsibilities and the sub-component target objectives and weightings is explained. Each business unit is responsible for establishing target objectives and weightings that business unit senior managers deem appropriate for the circumstances of that particular business unit. The requested information could not be obtained without a special study.

Phil Grate
Director - Regulatory Finance
1600 7th Ave.
Seattle, WA

REPRODUCTION OF THE RESPONSE TO USWC DISCOVERY

ARIZONA CORPORATION COMMISSION

DOCKET NO. T-01051B-99-0105

USW 2-1. Please state all the reasons Mr. Carver believes that incentive compensation costs can be accorded a different recovery treatment in ratemaking than the costs of other forms of employee compensation. Specifically explain why the cost of an employee's incentive compensation could be disallowed while the other costs of compensating the same employee are not.

Response:

The Company incurs a multitude of costs, some employee related and others non-employee related, that are subject to review, evaluation, annualization and possibly even disallowance during the ratemaking process. The analysis and evaluation of these various categories of cost must consider the unique characteristics that drive the recognition and incurrence thereof. For example, the Company records both depreciation expense and amortization expense. Although both of these expense items represent forms of ratable recovery of an asset or deferred cost over time, the analysis, evaluation and annualization of depreciation is different from amortization and could lead to different ratemaking treatments.

Employee compensation also comes in different shapes and sizes. Employees typically receive base salaries and wages that are a function of time worked (hourly or monthly) and the rate of pay (hourly or monthly). For most employees, this form of compensation represents a substantial portion of their cash compensation. Employees are also typically eligible for vacation pay, sick leave, and other forms of paid absences that, within predefined parameters, allow employee absences without subjecting employees to reductions in pay. Certain employees may also be eligible for overtime or premium pay for time worked in excess of standard work requirements. Yet other employees may be eligible for incentive pay.

During a rate proceeding, each of these types or forms of compensation are reviewed and analyzed. Employee headcounts and periodic wage/salary increases are reviewed in the context of overall trends in regular or basic pay. When available, overtime/ premium hours and related dollars are also reviewed separately, as are overall levels of paid absences. In the context of a rate case using an EOP test year, these separate forms of

compensation and their unique drivers are individually analyzed and evaluated. As a result, it may be determined that annualization, normalization or disallowance adjustments are required to either increase or decrease recorded test year expense levels.

Incentive compensation is a unique form of employee compensation. Because incentive compensation is a discretionary form of compensation that requires conditions other than satisfactory work to precede or trigger any employee pay-out, the analysis of this compensation component properly includes a review and assessment of the provisions of such plans to determine whether the related test year costs are reasonable and should be borne by ratepayers. Although the individual employee has direct control over the quality and sufficiency of dispatching his/her day-to-day work activities in most situations, the individual employee has limited influence over the corporation's consolidated financial condition or survey results. Just because an individual employee may receive multiple forms of compensation (e.g., base pay, overtime pay, other paid time off as well as incentive pay), Mr. Carver does not believe that this "fact" is conclusive that each and every form of paid compensation the Company should automatically be deemed reasonable for recovery from ratepayers.

Please refer to Mr. Carver's direct testimony, beginning at page 39, for a discussion of the rationale for the Staff's proposal to exclude the cost of certain elements of the Company's incentive compensation plans from revenue requirement.

Witness: S[illegible]r
Prefiled Direct Testimony

[illegible]ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
PROFORMA DEPRECIATION ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule C-15
Page 1 of 1
Revised

LINE NO.	DESCRIPTION	ACCOUNT	TOTAL STATE 12/31/99 INVESTMENT	TOTAL STATE EXCHANGE SALE	%INTRASTATE	INTRASTATE 12/31/99 INVESTMENT	INTRASTATE EXCHANGE SALE	STAFF UPDATED TY ACCRUAL DEPR RATES	ACC STAFF PROFORMA DEPR. 12/31/99 INVESTMENT	ACC STAFF PROFORMA DEPR. EXCHANGE SALE
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1	Motor Vehicles	2112	$67,008	$2,204	0.7089	$47,502	$1,562	2.7%	1,283	42
2	Spec Purpose Vehicles	2114	25	0	0.7089	18	0	13.4%	2	0
3	Garage Work Equipment	2115	1,356	0	0.7089	961	0	18.1%	174	0
4	Other Work Equipment	2116	22,416	423	0.7089	15,891	300	13.8%	2,193	41
5	Buildings	2121	162,763	14,155	0.7089	115,383	10,034	2.9%	3,346	291
6	Furniture	2122	1,704	7	0.7089	1,208	5	21.2%	256	1
7	Office Equipment	2123.1	5,478	18	0.7089	3,883	13	19.2%	746	2
8	Company Communication Equip (a), (	2123.2	1,467	83	0.7089	1,040	59	0.0%	0	0
9	General Purpose Computers	2124	112,017	772	0.7089	79,409	547	4.5%	3,573	25
10	Analog Switching Equip	2211	138,599	49	0.7996	110,824	39	(f)	18,000	0
11	Digital Switching Equip	2212	819,226	51,289	0.7996	655,053	41,011	10.7%	70,091	4,388
12	Operator Systems	2220	7,080	0	0.9178	6,498	0	7.4%	481	0
13	Radio Systems	2231	35,323	14,698	0.6673	23,571	9,808	3.3%	778	324
14	Circuit Equip									
15	Circuit DDS	2232	8,492	418	0.6673	5,667	279	0.0%	0	0
16	Circuit Digital	2232	1,128,055	62,285	0.6673	752,751	41,563	8.9%	66,995	3[illegible]99
17	Circuit Analog	2232	48,900	5,422	0.6673	32,631	3,618	1.5%	489	54
18	Other Terminal Equip	2362	48,461	1,304	0.8273	40,092	1,079	7.1%	2,847	77
19	Public Tel Terminal Equip	2351	17,969	0	1.0000	17,969	0	n/a	0	0
20	Pole Lines	2411	46,617	9,703	0.7380	34,403	7,161	6.4%	2,202	458
21	Aerial Cable Met	2421	164,522	32,219	0.7380	121,417	23,778	9.6%	11,656	2,283
22	Aerial Cable Non-Met	2421	6,183	1,651	0.7380	4,563	1,218	9.3%	424	113
23	Underground Cable Met	2422	348,312	11,073	0.7380	257,054	8,172	7.8%	20,050	637
24	Underground Cable Non-Met	2422	86,984	2,944	0.7380	64,194	2,173	11.2%	7,190	243
25	Buried Cable Met	2423	1,256,424	132,260	0.7380	927,241	97,608	11.1%	102,924	10,834
26	Buried Cable Non-Met	2423	17,245	3,913	0.7380	12,727	2,888	6.7%	853	193
27	Sub Cable Met	2424	3	3	0.7380	2	2	192.0%	4	4
28	Sub Cable Non-Met	2424	0	0	0.7380	0	0	5.0%	0	0
29	Intra Building Cable Met	2426	41,023	2,718	0.7380	30,275	2,006	3.2%	969	64
30	Intra Building Cable Non-Met	2426	581	6	0.7380	429	4	9.5%	41	0
31	Aerial Wire	2431	8,799	4,368	0.7380	6,494	3,224	17.4%	1,130	561
32	Conduit Systems	2441	305,068	17,670	0.7380	225,140	13,040	2.3%	5,178	300
33	Total		$4,908,100	$371,655		$3,594,290	$271,191	9.0%	$323,874	$24,637
			(a)	(a)	(a)		(a)	(b)		
34	ACC Staff Proforma Intrastate Depreciation								323,874	
35	Add: Offbook Depreciation Annualization	(e)							4,178	
36	Less: USWC's Proforma Depreciation Adjustment [P-03]								(107,968)	
37	Less: Intrastate Per Book Depreciation [A/C 6561]	(c)							(222,881)	
38	ACC STAFF ADJUSTMENT TO RECOGNIZE THE TEST YEAR UPDATE TO THE DEPRECATION ACCRUAL RATES								($2,797)	

FOOTNOTES:

(a) Source: USWC response to UTI 52-14.
(b) Source: ACC Staff witness Dunkel.
(c) Source: USWC response to UTI 46-06 for A/C 6561.
(d) Source: USWC response to UTI 55-2.

(e) Offbook Depreciation Annualization

12/99 ST AFUDC/ CRADS	$153
12/99 AFUDC	195
Subtotal	$348
Annualization Factor	12
Annualized OBK Amount	$4,178

(f) 3-Year amortization of undepreciated amounts per ACC Staff Witness Dunk

Surrebuttal Appendix SCC-5
Page 1 of 1

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
INDEX TO ACC STAFF JOINT ACCOUNTING EXHIBIT
AND SUPPORTING SCHEDULES

EXHIBIT
S-16
admitted

08/07/00
05:01 PM

Schedule No.	Description	Witness
A	**CHANGE IN GROSS REVENUE REQUIREMENT**	S. Carver
A-1	REVENUE CONVERSION FACTOR	S. Carver
B	**SUMMARY OF JURISDICTIONAL RATE BASE**	S. Carver
B-1	UNRECORDED RETIREMENTS	M. Brosch
B-2	SOP 98-1 (INTERNAL-USE SOFTWARE)	S. Carver
B-3	FAS87 PENSION ASSET	S. Carver
B-4	CASH WORKING CAPITAL	M. Brosch
B-5	PROFORMA DEPRECIATION -- RESERVE REVERSAL	S. Carver
B-6	BROADBAND CABLE TRANSACTIONS (ASSET TRANSFER)	M. Brosch
B-7	FCC DEREG -- SEPARATIONS ADJUSTMENT	S. Carver
C	**SUMMARY OF OPERATING INCOME**	S. Carver
C-1	REVENUE ANNUALIZATION - RECURRING LOCAL SERVICE	M. Brosch
C-2	ANNUALIZATION OF INTRASTATE TOLL REVENUES	M. Brosch
C-3	REVERSAL OF ACCESS ANNUALIZATION	M. Brosch
C-4	MISCELLANEOUS REVENUE NORMALIZATION	M. Brosch
C-5	DIRECTORY IMPUTATION PER AGREEMENT	M. Brosch
C-6	BROADBAND CABLE TRANSACTIONS	M. Brosch
C-7	UNCOLLECTIBLES ANNUALIZATION	M. Brosch
C-8	SERVICE QUALITY PROGRAM COST ELIMINATION	M. Brosch
C-9	AFFILIATE TRANSACTION TRUE-UP NORMALIZATION	M. Brosch
C-10	EOP NONLABOR REVERSAL	S. Carver
C-11	YEAR-END WAGE & SALARY ANNUALIZATION	S. Carver
C-12	INCENTIVE COMPENSATION	S. Carver
C-13	SOP 98-1 (INTERNAL-USE SOFTWARE)	S. Carver
C-14	USWC PAYROLL ADJUSTMENT REVERSAL	S. Carver
C-15	PROFORMA DEPRECIATION ANNUALIZATION	S. Carver
C-16	INTEREST SYNCHRONIZATION ADJUSTMENT	S. Carver
C-17	FCC DEREGULATED SERVICES REVENUE IMPUTATION	S. Carver
C-18	FCC DEREG -- SEPARATIONS ADJUSTMENT	S. Carver
C-19	PUBLIC AFFAIRS/RELATIONS EXPENSE DISALLOWANCE	M. Brosch
C-20	US WEST INC. DEPARTMENTAL DISALLOWANCES	M. Brosch
C-21	EMPLOYEE CONCESSION ALLOCATION TO INTERSTATE	M. Brosch
C-22	DEPRECIATION ON UNRECORDED RETIREMENTS	M. Brosch
C-23	RESERVED	S. Carver
C-24	PROPERTY TAX CORRECTION	S. Carver
C-25	OUT OF PERIOD PROPERTY AND OTHER TAXES	S. Carver
C-26	OUT OF PERIOD INCOME TAXES	S. Carver
C-27	IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP	S. Carver
C-28	RENT COMPENSATION	M. Brosch
C-29	EXCHANGE SALE ALLOCATION ADJUSTMENTS	M. Brosch
C-30	RECIPROCAL COMPENSATION	M. Brosch
D	**CAPITAL STRUCTURE SUMMARY**	S. Carver
E	**RECONCILIATION OF POSITIONS**	S. Carver
F	**SEPARATION FACTOR COMPOSITES**	S. Carver

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
CHANGE IN GROSS REVENUE REQUIREMENT
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule A
Page 1 of 1

LINE NO.	DESCRIPTION	SOURCE	COMPANY PROPOSED AMOUNT ORIGINAL COST	COMPANY PROPOSED AMOUNT FAIR VALUE	ACC STAFF PROPOSED AMOUNT ORIGINAL COST	ACC STAFF PROPOSED AMOUNT FAIR VALUE
	(A)	(B)	(C)	(D)	(E)	(F)
1	Adjusted Rate Base	Sch. B	$1,422,100	$1,772,112	$1,435,287	$1,445,779
2	Required Rate of Return	Notes (a) & (b)	10.86%	10.86%	9.68%	9.61%
3	Required Operating Income	Line 1 * Line 2	154,440	192,451	138,936	138,936
4	Adjusted Net Operating Income	Sch. C	43,833	43,833	134,271	134,271
5	Operating Income Deficiency	Line 3 - Line 4	110,607	148,618	4,665	4,665
6	Gross Revenue Conversion Factor	Sch. A-1	1.7056	1.7056	1.6995	1.6995
7	Increase in Gross Revenue Requirements	Line 5 * Line 6	188,655	253,488	7,928	7,928
8	Add: Bellcore 3 Year Adjustment		(686)	(686)	(686)	(686)
9	Automatic Adjustment Revenue Req.	Note (c)	13,252	13,252	---Included in Line 7, above---	
10	Total Increase/(Reduction) in Gross Revenue Requirement		**$201,221**	**$266,054**	**$7,242**	**$7,242**
			Note (d)			

FOOTNOTES:

(a) USWC provided no information in its updated filing regarding fair rate of return on fair value, but in response to UTI 43-21S1, assigned the same cost of capital to both original cost and fair value rate base.

(b) Staff proposes rate of return on fair value at level required to earn required operating income and cost of capital

(c) Staff has included Reciprocal Compensation costs in the basic revenue requirement and opposes USWC proposed Automatic Adjustment mechanism for such costs (See testimony of M. Brosch)

(d) Revenue Requirement of $201,220,000 per USWC Exhibit GAR-S1 (Redding Supplemental Exhibits). Difference due to rounding.

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
REVENUE CONVERSION FACTOR
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	COMPANY REFERENCE	FACTOR PER COMPANY	STAFF REFERENCE	FACTOR PER ACC Staff
	(A)	(B)	(C)	(D)	(E)
1	Gross Intrastate Revenue		100.000000%		100.000000%
2	Less: Uncollectible Revenue	(a)	1.850900%	See Sched. C-7	1.490000%
3	Total Revenue	Ln1-Ln2	98.149100%		98.510000%
4	Less: Taxes on Local Revenue	(b)	0.106600%		-0.113700%
5	Taxable Income	Ln3-Ln4	98.042500%		98.396300%
6	Less: Effective State Income Tax	Line 5 * 8.00%	7.843400%		-7.871704%
7	Less: Effective Federal Income Tax	Line 5 * 32.2%	31.569685%		-31.683609%
8	Net Operating Earnings	Ln5-Ln6-Ln7	58.629415%		58.840987%
9	GROSS REVENUE CONVERSION FACTOR	Ln 1/Ln 8	1.7056		1.6995

FOOTNOTES:

(a) Based on Test Year End of Period Adjustment at Schedule C-7 and UTI 48-13.
(b) Includes Franchise and License taxes and Sales tax assumed.

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF JURISDICTIONAL RATE BASE
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION		COMPANY PROPOSED RATE BASE	ACC STAFF TEST YEAR ADJUSTMENTS	ACC STAFF PROPOSED RATE BASE
	(A)		(B)	(C)	(D)
	Original Cost				
1	Telephone Plant In Service	Note (a)	$3,566,015	($35,254)	$3,530,761
2	Short-Term Plant Under Construction		0	0	0
3	Materials and Supplies		18,386	0	18,386
4	Allowance for Cash Working Capital		(39,211)	(9,469)	(48,680)
5	Accumulated Depr & Amort Reserve		(1,923,025)	144,140	(1,778,885)
6	Accumulated Deferred Income Tax		(240,535)	(20,009)	(260,544)
7	Customer Deposits		(7,711)	0	(7,711)
8	Land Development Agreement Deposits		(18,040)	0	(18,040)
9	Other Assets & Liabilities		66,221	(66,221)	0
10	**END OF PERIOD RATE BASE - ORIGINAL COST**		$1,422,100	$13,187	$1,435,287
11	**Fair Value Rate Base**		$1,772,112		
12	Staff Rate Base Accounting Adjustments	Note (b)		13,187	
13	Staff Witness Dunkel RCND Study Adjustme	Note (c)		(339,520)	
14	Total Staff Fair Value Adjustments			(326,333)	
15	**END OF PERIOD RATE BASE - FAIR VALUE**				$1,445,779

FOOTNOTES:

(a) SOURCE: Adjusted Test Year per USWC Exhibit GAR-4 (Redding Supplemental Exhibit). Fair Value from UTI 58-02, Att. A. Staff adjustments at original cost also posted at fair value.

(b) SOURCE: Schedule B, page 2 of 2.

(c) SOURCE: Testimony/Exhibits of William Dunkel.

Witness: C. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF ACC STAFF RATE BASE ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule B
Page 2 of 2

LINE NO.	DESCRIPTION	ADJUSTMENT NUMBER / SCHEDULE REFERENCE B-1	B-2	B-3	B-4	B-5	B-6	B-7	TOTAL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	Telephone Plant In Service	($40,076)	($7,417)				$10,191	$2,048	($35,254)
2	Short-Term Plant Under Construction							0	0
3	Materials and Supplies							0	0
4	Allowance for Cash Working Capital				(9,469)			0	(9,469)
5	Accumulated Depr & Amort Reserve	40,076				107,968	(3,400)	(504)	144,140
6	Accumulated Deferred Income Tax			23,877		(43,403)		(483)	(20,009)
7	Customer Deposits							0	0
8	Land Development Agreement Deposits							0	0
9	Other Assets & Liabilities			(66,221)				0	(66,221)
10	**End-of-Period Rate Base**	$0	($7,417)	($42,344)	($9,469)	$64,565	$6,791	$1,061	$13,187

ADJUSTMENTS:

B-1 UNRECORDED RETIREMENTS
B-2 SOP 98-1 (INTERNAL-USE SOFTWARE)
B-3 FAS87 PENSION ASSET
B-4 CASH WORKING CAPITAL
B-5 PROFORMA DEPRECIATION -- RESERVE REVERSAL
B-6 BROADBAND CABLE TRANSACTIONS (ASSET TRANSFER)
B-7 FCC DEREG -- SEPARATIONS ADJUSTMENT

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
UNRECORDED RETIREMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION			PROPERTY VINTAGE	ARIZONA VINTAGE INVESTMENT AMOUNT	%INTRASTATE	INTRASTATE UNRECORDED PLANT RETIREMENT AMOUNT	INTRASTATE ACCUMULATED DEPRECIATION AMOUNT
	(A)			(B)	(C)	(D)	(E)	(F)
1	General Purpose Computers	361C	Account 2124	1989	$24,060	0.7089	$17,056	$17,056
2	Digital Switching Equipment	DEZ	Account 2212	1955	397	0.7996	317	317
3	Digital Circuit Equipment	CRD	Account 2232	1955	737	0.6673	492	492
4	Underground Metallic Cable	UGM	Account 2422	1925	10,104	0.7380	7,457	7,457
5	Buried Metallic Cable	BCM	Account 2423	1925	16,781	0.7380	12,384	12,384
6	Intra-Building Metallic Cable	IBM	Account 2426	1925	3,211	0.7380	2,370	2,370
7	Total				$55,290		$40,076	$40,076
					(a)	(b)		(c)
8	STAFF ADJUSTMENT TO RATE BASE FOR UNRECORDED RETIREMENTS				TELEPHONE PLANT IN SERVICE		($40,076)	
9					ACCUMULATED DEPRECIATION			$40,076
10					- NET PLANT			$0

FOONOTES:

(a) Source: USWC's RCND study, Exh. NHH-1, pages 26, 29, 34, 45, 48 and 53.
(b) Source: ACC Staff Schedule C-15.
(c) Accumulated Depreciation is reduced in same amount as retired Plant in Service under normal mass asset accounting pursuant to FCC Part 32.

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SOP 98-1 (INTERNAL-USE SOFTWARE)
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	AMOUNT
	(A)	(B)	(C)
1	USWC Proposed Adjustment to Correct Plant Investment for Out of Period Software Capitalization	Note (a)	($7,417)
2	ACC STAFF ADJUSTMENT TO RECOGNIZE COMPANY PROPOSED CORRECTION ADJUSTMENT		($7,417)

FOOTNOTE:
(a) Source: *USWC response to UTI 43-20, Attachment G.*

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
FAS87 PENSION ASSET
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	INTRASTATE AMOUNT
	(A)	(B)	(C)
1	USWC FAS87 Pension Asset Included in Rate Base	Note (a)	$66,221
2	Less: Accumulated Deferred Income Tax Reserve, Rate Base Offset	Note (b)	(23,877)
3	Net Pension Asset in USWC's Proposed Rate Base		$42,344
4	ACC STAFF ADJUSTMENT TO ELIMINATE USWC'S PROPOSED PENSION ASSET		($42,344)

FOOTNOTE:
(a) Source: USWC workpapers and Updated Adjustment P-04.
(b) Source: USWC response to UTI 43-10.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
CASH WORKING CAPITAL
TEST YEAR ENDING DECEMBER 31, 1999

ACC Staff
Schedule B-4
Page 1 of 1

Calculation of Composite Net Revenue Lag Days:

LINE NO.		Test Year Adjuste Revenues $000 (A)	Weighted Factor (B)	Revenue Lead (C)	Weighted Lead (D)	
1	Local Revenue	$937,608	74.45%	19.4	14.4	
2	Network Access Service	113,428	9.01%	42.0	3.8	
3	Long Distance Network Service	22,773	1.81%	42.5	0.8	
4	Billing and Collection Revenue	6,725	0.53%	42.0	0.2	
5	Miscellaneous Revenue	178,929	14.21%	24.6	3.5	
6	TOTAL REVENUE	$1,259,464	100.00%		**22.7**	Composite Revenue Lead/Lag Days

Calculation of Cash Working Capital Requirement:

		Test Year Adjuste Expenses $000 (A)	Expense Lag Days (B)	Net Lag Days (col B - rev. lag) (C)	Net Lag Factor (col C / 365 days) (D)	CWC Requirement (col D * col A) (E)
7	Maintenance	261,129	23.8	-1.1	-0.0030	(787)
8	Engineering Expense	10,079	27.3	-4.6	-0.0126	(127)
9	Network Operations	44,184	27.2	-4.5	-0.0123	(545)
10	Network Administration	1,894	25.3	-2.6	-0.0071	(13)
11	Access Expense	37,116	43.8	-21.1	-0.0578	(2,146)
12	Other Expense	960	33.7	-11.0	-0.0301	(29)
13	Customer Operations	187,393	29.1	-6.4	-0.0175	(3,286)
14	Corporate Operations	134,129	32.2	-9.5	-0.0260	(3,491)
15	Property Taxes	45,659	206.6	-183.9	-0.5038	(23,005)
16	Other Taxes (excluding Income Taxes)	3,231	-25.6	48.3	0.1323	428
17	Uncollectibles	16,000	22.7	0.0	0.0000	0
18	Depreciation Expense	325,396	22.7	0.0	0.0000	0
19	Current Federal Income Taxes	65,464	36.0	-13.3	-0.0364	(2,385)
20	Current State Income Taxes	16,830	61.1	-38.4	-0.1052	(1,771)
21	Deferred Income Taxes	(52,783)	22.7	0.0	0.0000	0
22	TOTAL OPERATING EXPENSES & INCOME	1,096,681				(37,157)
23	Interest Expense	50,522	92.7	-70.0	-0.1918	(9,689)
24	Federal Excise Taxes	20,796	N/A	-0.2	-0.0005	(11)
25	Sales Tax	62,755	N/A	-10.6	-0.0290	(1,822)
26	Average Benefit Liability					0
27	TOTAL MISCELLANEOUS ITEMS	$134,073				(11,523)
28	CASH WORKING CAPITAL REQUIREMENT - PER STAFF					(48,680)
29	CASH WORKING CAPITAL - PER USWC					(39,211)
30	STAFF ADJUSTMENT TO CASH WORKING CAPITAL					($9,469)

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
PROFORMA DEPRECIATION -- RESERVE REVERSAL
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	USWC PROPOSE ADJUSTMENT	ACC STAFF REVERSAL
	(A)	(B)	(C)	(D)
1	Accumulated Depr & Amort Reserve	(a)	($107,968)	$107,968
2	Accumulated Deferred Income Tax	(a)	43,403	(43,403)
3	Net Rate Base Effect		($64,565)	
4	ACC STAFF ADJUSTMENT TO REVERSE THE EFFECT OF USWC'S PROFORMA ADJUSTMENT TO RATE BASE FOR THE CHANGE IN BOOK DEPRECIATION RATES AUTHORIZED IN MAY 2000			$64,565

FOOTNOTE:
(a) Source: USWC workpapers and Updated Adjustment P-03.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
BROADBAND CABLE TRANSACTIONS (ASSET TRANSFER)
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	USWC ADJUSTMENT AMOUNT	STAFF ELIMINATION ADJUSTMENT AMOUNT
	(A)	(B)	(C)	(D)
1	Plant in Service Adjustment for Proposed Cable Asset Transfe	Co. WP's & RUCO 26-3A	($10,191)	$10,191
2	Accumulated Depreciation Reserve		(3,400)	3,400
3	Net Plant In Service	Line 1 - Line 2	(6,791)	6,791
4	STAFF ADJUSTMENT TO REVERSE/ELIMINATE USWC'S CABLE ASSET TRANSFER ADJUSTMENT			$6,791

Witness: [illegible]arver
Prefiled Direct Testimony

US WEST [illegible]MUNICATIONS
DOCKET NO. T-1051B-99-105
FCC DEREG -- SEPARATIONS ADJUSTMENT
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

[illegible] Staff
Schedule B-7
Page 1 of 1

LINE NO.	DESCRIPTION	Intrastate Adjustments			Composite Separation Factors			Ratio	ACC Staff Adjustment
		USWC Proposed	Staff Proposed	Total	USWC Proposed (incl. FCC Dereg)	Staff Proposed (excl. FCC Dereg)	Net Change	(H=G/E)	(I=H*D)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Original Cost								
1	Telephone Plant In Service	($133,092)	($37,302)	($170,394)	0.7230	0.7143	-0.0087	-1.20%	$2,048
2	Short-Term Plant Under Construction	0	0	0	0.0000	0.0000	0.0000	n/a	0
3	Materials and Supplies	0	0	0	0.7252	0.7029	-0.0223	-3.08%	0
4	Allowance for Cash Working Capital	(14,813)	(9,469)	(24,282)	1.0000	1.0000	0.0000	n/a	0
5	Accumulated Depr & Amort Reserve	(104,538)	144,644	40,106	0.7192	0.7102	-0.0090	-1.26%	(504)
6	Accumulated Deferred Income Tax	68,525	(19,526)	48,999	0.7452	0.7379	-0.0073	-0.99%	(483)
7	Customer Deposits	(2,015)	0	(2,015)	0.7387	0.7121	-0.0266	n/a	0
8	Land Development Agreement Deposits	0	0	0	0.7315	0.7315	0.0000	n/a	0
9	Other Assets & Liabilities	66,221	(66,221)	0	0.0000	0.0000	0.0000	n/a	0
10	END OF PERIOD RATE BASE AMOUNT	($119,712)	$12,126	($107,586)	0.7119	0.7031	-0.0087		$1,061
		(a)	(b)		(c)	(c)			

FOONOTES:
(a) Source: USWC Exhibit GAR-S4A and GAR-S4B, Company witness G. Redding.
(b) Source: ACC Staff Schedule B (excluding B-7).
(c) Source: ACC Staff Schedule F.

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF OPERATING INCOME
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	COMPANY ADJUSTED OPERATING INCOME	ACC Staff PROPOSED ADJUSTMENTS	ACC Staff ADJUSTED OPERATING INCOME
	(A)	(B)	(C)	(D)
	Revenues			
1	Local Service Revenues	$920,762	$16,846	$937,608
2	Network Access Service Revenues	115,252	(1,824)	113,428
3	Long Distance Network Service Rev.	22,413	360	22,773
4	Miscellaneous	131,842	53,812	185,654
5	Total Operating Revenue	$1,190,269	$69,195	$1,259,464
	Expenses			
6	Maintenance	262,322	(1,193)	261,129
7	Engineering Expense	10,745	(666)	10,079
8	Network Operations	49,225	(5,041)	44,184
9	Network Administration	2,212	(318)	1,894
10	Access Expense	1,423	35,693	37,116
11	Other	1,271	(311)	960
12	Total Cost of Svcs & Products	$327,198	$28,164	$355,362
13	Customer Operations	219,291	(31,898)	187,393
14	Corporate Operations	206,976	(72,847)	134,129
15	Property and Other Taxes	48,017	873	48,890
16	Uncollectibles	16,101	(101)	16,000
17	Tot Selling, General & Administrative	$490,385	($103,973)	$386,412
18	Other Operating Income & Expense	847	(366)	481
19	Depreciation Expense	328,884	(3,488)	325,396
20	Universal Service Fund	0	0	0
21	Link Up America	(117)	29	(88)
22	Total Operating Expense	$1,147,197	($79,634)	$1,067,563
23	**Income From Operations**	$43,072	$148,830	$191,902
	Taxes			
24	Federal Income Tax	($3,111)	48,654	$45,543
25	State & Local Income Tax	2,350	9,738	12,088
26	**Net Operating Income** (Line 23-24-25)	$43,833	$90,438	$134,271
		(a)	(b)	

FOOTNOTES:

(a) SOURCE: Adjusted Test Year per USWC Exhibit GAR-S5 (corrected per response to UTI 56-2).
(b) ACC Staff Schedule C, Page 3 of 3.

Witness: [illegible] ver
Prefiled Direct Testimony

[illegible] ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF ACC STAFF NOI ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

[illegible] Staff
Schedule C
Page 2 of 5

LINE NO.	DESCRIPTION	ADJUSTMENT NUMBER / SCHEDULE REFERENCE C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	SUBTOTAL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Revenues										
1	Local Service Revenues	$8,887							$7,960		$16,846
2	Network Access Service Revenues			(1,824)							(1,824)
3	Long Distance Network Service Rev.		360								360
4	Miscellaneous				(1,473)	41,340	3,657				43,524
5	Total Operating Revenue	$8,887	$360	($1,824)	($1,473)	$41,340	$3,657	$0	$7,960	$0	$58,907
	Expenses										
6	Maintenance						2,068				$2,068
7	Engineering Expense										0
8	Network Operations										0
9	Network Administration										0
10	Access Expense										0
11	Other										0
12	Total Cost of Svcs & Products	$0	$0	$0	$0	$0	$2,068	$0	$0	$0	$2,068
13	Customer Operations										0
14	Corporate Operations								(1,651)	1,087	(564)
15	Property and Other Taxes										0
16	Uncollectibles							(101)			(101)
17	Tot Selling, General & Administrative	$0	$0	$0	$0	$0	$0	($101)	($1,651)	$1,087	($665)
18	Other Operating Income & Expense										0
19	Depreciation Expense										0
20	Universal Service Fund										0
21	Link Up America										0
22	Total Operating Expense	$0	$0	$0	$0	$0	$2,068	($101)	($1,651)	$1,087	$1,402
23	**Income From Operations**	$8,887	$360	($1,824)	($1,473)	$41,340	$1,589	$101	$9,611	($1,087)	$57,505
	Taxes										
24	Federal Income Tax	$2,862	$116	($587)	($474)	$13,312	$512	$33	$3,095	($350)	$18,517
25	State & Local Income Tax	711	29	(146)	(118)	3,307	127	8	769	(87)	4,600
26	**Net Operating Income** (Line 23-24-25)	$5,314	$215	($1,091)	($881)	$24,722	$950	$61	$5,747	($650)	$34,388

ADJUSTMENTS:

- C-1 REVENUE ANNUALIZATION - RECURRING LOCAL SERVICE
- C-2 ANNUALIZATION OF INTRASTATE TOLL REVENUES
- C-3 REVERSAL OF ACCESS ANNUALIZATION
- C-4 MISCELLANEOUS REVENUE NORMALIZATION
- C-5 DIRECTORY IMPUTATION PER AGREEMENT
- C-6 BROADBAND CABLE TRANSACTIONS
- C-7 UNCOLLECTIBLES ANNUALIZATION
- C-8 SERVICE QUALITY PROGRAM COST ELIMINATION
- C-9 AFFILIATE TRANSACTION TRUE-UP NORMALIZATION

Witness: ver
Prefiled Direct Testimony

ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF ACC STAFF NOI ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

Staff
Schedule C
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LINE NO.	DESCRIPTION	PRIOR PAGE SUBTOTAL	ADJUSTMENT NUMBER / SCHEDULE REFERENCE C-10	C-11	C-12	C-13	C-14	C-15	C-16	C-17	SUBTOTAL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Revenues										
1	Local Service Revenues	$16,846									$16,846
2	Network Access Service Revenues	(1,824)									(1,824)
3	Long Distance Network Service Rev.	360									360
4	Miscellaneous	43,524								3,562	47,086
5	Total Operating Revenue	$58,907	$0	$0	$0	$0	$0	$0	$0	$3,562	$62,469
	Expenses										
6	Maintenance	$2,068	9,259	(6,660)	(155)		(6,527)			0	(2,015)
7	Engineering Expense	0	(453)	(171)	32		(143)			0	(734)
8	Network Operations	0	(1,996)	(1,265)	(202)		(1,099)			0	(4,561)
9	Network Administration	0	(192)	(58)	(20)		(50)			0	(319)
10	Access Expense	0	17,752	0	0		(41)			0	17,711
11	Other	0	(248)	(26)	0					0	(274)
12	Total Cost of Svcs & Products	$2,068	$24,122	($8,180)	($345)	$0	($7,858)	$0	$0	$0	$9,807
13	Customer Operations	0	(18,600)	(4,194)	(2,056)		(3,984)			0	(28,834)
14	Corporate Operations	(564)	(14,802)	(1,256)	(3,039)	(42,246)	(1,266)			0	(63,173)
15	Property and Other Taxes	0	0		0					4	4
16	Uncollectibles	(101)	0		0					0	(101)
17	Tot Selling, General & Administrative	($665)	($33,402)	($5,450)	($5,095)	($42,246)	($5,251)	$0	$0	$4	($92,105)
18	Other Operating Income & Expense	0	(366)							0	(366)
19	Depreciation Expense	0	0			9,933		(2,948)		0	6,984
20	Universal Service Fund	0	n/a							0	0
21	Link Up America	0	29							0	29
22	Total Operating Expense	$1,402	($9,617)	($13,630)	($5,440)	($32,313)	($13,109)	($2,948)	$0	$4	($75,651)
23	**Income From Operations**	$57,505	$9,617	$13,630	$5,440	$32,313	$13,109	$2,948	$0	$3,558	$138,120
	Taxes										
24	*Federal Income Tax*	$18,517	$3,097	$4,389	$1,752	$10,405	$4,221	$949	($37)	$1,146	$44,437
25	State & Local Income Tax	4,600	769	1,090	435	2,585	1,049	236	(9)	$285	11,040
26	**Net Operating Income** (Line 23-24-25)	$34,388	$5,751	$8,151	$3,253	$19,323	$7,839	$1,763	$46	$2,128	$82,642

ADJUSTMENTS:

- **C-10** EOP NONLABOR REVERSAL
- **C-11** YEAR-END WAGE & SALARY ANNUALIZATION
- **C-12** INCENTIVE COMPENSATION
- **C-13** SOP 98-1 (INTERNAL-USE SOFTWARE)
- **C-14** USWC PAYROLL ADJUSTMENT REVERSAL
- **C-15** PROFORMA DEPRECIATION ANNUALIZATION
- **C-16** INTEREST SYNCHRONIZATION ADJUSTMENT
- **C-17** FCC DEREGULATED SERVICES REVENUE IMPUTATION

Witness: [illegible]er
Prefiled Direct Testimony

U[illegible]ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF ACC STAFF NOI ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

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LINE NO.	DESCRIPTION	PRIOR PAGE SUBTOTAL	ADJUSTMENT NUMBER / SCHEDULE REFERENCE C-18	C-19	C-20	C-21	C-22	C-23	C-24	C-25	SUBTOTAL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Revenues										
1	Local Service Revenues	$16,846	$-0								$16,846
2	Network Access Service Revenues	(1,824)	0								(1,824)
3	Long Distance Network Service Rev.	360	0								360
4	Miscellaneous	47,086	0								47,086
5	Total Operating Revenue	$62,469	$0	$0	$0	$0	$0	$0	$0	$0	$62,469
	Expenses										
6	Maintenance	(2,015)	822								(1,193)
7	Engineering Expense	(734)	71								(663)
8	Network Operations	(4,561)	(479)								(5,041)
9	Network Administration	(319)	1								(318)
10	Access Expense	17,711	0								17,711
11	Other	(274)	(38)								(311)
12	Total Cost of Svcs & Products	$9,807	$377	$0	$0	$0	$0	$0	$0	$0	$10,184
13	Customer Operations	(28,834)	(16)								(28,851)
14	Corporate Operations	(63,173)	4,969	(756)	(1,142)	(471)					(60,573)
15	Property and Other Taxes	4	45						(1,238)	2,061	873
16	Uncollectibles	(101)	0								(101)
17	Tot Selling, General & Administrative	($92,105)	$4,998	($756)	($1,142)	($471)	$0	$0	($1,238)	$2,061	($88,652)
18	Other Operating Income & Expense	(366)	0								(366)
19	Depreciation Expense	6,984	(1,755)				(2,877)	0			2,352
20	Universal Service Fund	0	0								0
21	Link Up America	29	0								29
22	Total Operating Expense	($75,651)	$3,621	($756)	($1,142)	($471)	($2,877)	$0	($1,238)	$2,061	($76,453)
23	**Income From Operations**	138,120	($3,621)	$756	$1,142	$471	$2,877	$0	$1,238	($2,061)	$138,922
	Taxes										
24	Federal Income Tax	44,437	($1,166)	$243	$368	$152	$927	$0	$399	($664)	$44,696
25	State & Local Income Tax	11,040	(290)	60	91	38	230	0	99	(165)	11,105
26	**Net Operating Income** (Line 23-24-25)	$82,642	($2,165)	$452	$683	$282	$1,721	$0	$740	($1,233)	$83,122

ADJUSTMENTS:

- **C-18** FCC DEREG -- SEPARATIONS ADJUSTMENT
- **C-19** PUBLIC AFFAIRS/RELATIONS EXPENSE DISALLOW
- **C-20** US WEST INC. DEPARTMENTAL DISALLOWANCES
- **C-21** EMPLOYEE CONCESSION ALLOCATION TO INTERSTATE
- **C-22** DEPRECIATION ON UNRECORDED RETIREMENTS
- **C-23** RESERVED
- **C-24** PROPERTY TAX CORRECTION
- **C-25** OUT OF PERIOD PROPERTY AND OTHER TAXES

U[illegible]ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SUMMARY OF ACC STAFF NOI ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	PRIOR PAGE SUBTOTAL	ADJUSTMENT NUMBER / SCHEDULE REFERENCE C-26	C-27	C-28	C-29	C-30	C-31	C-32	C-33	TOTAL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Revenues										
1	Local Service Revenues	$16,846									$16,846
2	Network Access Service Revenues	(1,824)									(1,824)
3	Long Distance Network Service Rev.	360									360
4	Miscellaneous	47,086			165		6,561				53,812
5	Total Operating Revenue	$62,469	$0	$0	$165	$0	$6,561	$0	$0	$0	$69,195
	Expenses										
6	Maintenance	(1,193)									(1,193)
7	Engineering Expense	(663)		(2)							(666)
8	Network Operations	(5,041)									(5,041)
9	Network Administration	(318)									(318)
10	Access Expense	17,711					17,982				35,693
11	Other	(311)									(311)
12	Total Cost of Svcs & Products	$10,184	$0	($2)	$0	$0	$17,982	$0	$0	$0	$28,164
13	Customer Operations	(28,851)		(9)		(3,038)					(31,898)
14	Corporate Operations	(60,573)		(9,919)		(2,354)					(72,847)
15	Property and Other Taxes	873									873
16	Uncollectibles	(101)									(101)
17	Tot Selling, General & Administrative	($88,652)	$0	($9,928)	$0	($5,393)	$0	$0	$0	$0	($103,973)
18	Other Operating Income & Expense	(366)									(366)
19	Depreciation Expense	2,352				(5,840)					(3,488)
20	Universal Service Fund	0									0
21	Link Up America	29									29
22	Total Operating Expense	($76,453)	$0	($9,931)	$0	($11,233)	$17,982	$0	$0	$0	($79,634)
23	**Income From Operations**	138,922	$0	$9,931	$165	$11,233	($11,421)	$0	$0	$0	$148,830
	Taxes										
24	Federal Income Tax	44,696	$768	$3,198	$53	$3,617	($3,678)	$0	$0	$0	$48,654
25	State & Local Income Tax	11,105	(2,159)	794	13	899	(914)	0	0	0	9,738
26	**Net Operating Income** (Line 23-24-25)	$83,122	$1,392	$5,939	$99	$6,717	($6,830)	$0	$0	$0	$90,438

ADJUSTMENTS:

- **C-26** OUT OF PERIOD INCOME TAXES
- **C-27** IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP
- **C-28** RENT COMPENSATION
- **C-29** EXCHANGE SALE ALLOCATION ADJUSTMENTS
- **C-30** RECIPROCAL COMPENSATION
- **C-31** RESERVED
- **C-32** RESERVED
- **C-33** RESERVED

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
REVENUE ANNUALIZATION - RECURRING LOCAL SERVICE
TEST YEAR ENDING DECEMBER 31, 1999

ACC Staff
Schedule C-1
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CONFIDENTIAL

LINE NO.	DESCRIPTION	ACCOUNT #	Per Books December 99 Revenues Note (a)	Adjustment to Normalize Recorded Amount Note (b)	Annualized Revenues Normal Dec. * 12 Cols (C-D) * 12	Per Books Test Period Revenues Note (c)	Annualization Adjustment $000 Col E - Col F
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Local Service Recurring Revenue Accounts:						
1		5001.1100	$31,015,994	($1,225,067)	$357,491,124	$340,519,473	$16,971,651
2		5001.2100	26,556,726		318,680,712	312,074,014	6,606,698
3		5001.5100	861,065		10,332,780	9,232,500	1,100,280
4		5001.7100	15,056		180,672	190,627	(9,955)
5		5001.8100	45,913		550,956	694,473	(143,517)
6		5060.1110	4,974,328		59,691,936	66,892,894	(7,200,958)
7		5060.1210	10,205,934		122,471,208	113,565,200	8,906,008
8		5060.1310	17,581		210,972	208,744	2,228
9		5060.1510	5,271		63,252	1,070,790	(1,007,538)
10		5060.1610	(22,375)		(268,500)	(21,565)	(246,935)
11		5060.2100	1,132		13,584	13,674	(90)
12		5060.4100	58,879		706,548	67,475	639,073
13		5001.4110	87,649		1,051,788	1,230,661	(178,873)
14		5001.4210	166,684		2,000,208	1,538,567	461,641
15	Total Local Service Accounts Annualized by Staff		$73,989,837	($1,225,067)	$873,177,240	$847,277,527	$25,899,713
16	Add: Annualized Impact of Rate Changes Not Included Above:						
17	Directory Assistance Reduction	per UTI 44-04					[redacted]
18	Digital Services Non-recurring Charges	"					
19	Super Savings Plan Non-recurring Charges	"					
20	**Total Staff Annualized Local Service Revenues Per Above**						$21,331,345
21	Less: USWC's Proposed Local Service Annualization Adjustment (P-01 WP's)						12,444,486
22	Staff Adjustment to Restate Local Service Revenue Annualization						$8,886,859
23	STAFF ADJUSTMENT RESTATING LOCAL SERVICE REVENUE ANNUALIZATION - ROUNDED $000						$8,887

Footnotes :

(a) All amounts per Company Workpapers and MR4 Reports

(b) Elimination of Centrex Overbilling (UTI 42-09A), CRIS Posting Accruals (UTI 49-06) and Year-end Accrual Normalization (UTI 49-06). Same as Company-proposed normalizations to these accounts.

(c) All amounts per Company Workpapers and MR4 Reports

(d) USWC's proposed annualization of local revenues is included in adjustment P-01. The Company annualized many more revenue accounts, including non-recurring local revenues, directory assistance, message charges and resale revenue accounts.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
ANNUALIZATION OF INTRASTATE TOLL REVENUES
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	Per Books December 1999 Revenues Note (a)	Adjustment to Normalize Recorded Amount Note (b)	Annualized Revenues December * 12 Cols (C-D) * 12	Per Books Test Period Revenues Note (c)	Annualization Adjustment $000 Col E - Col F
	(A)	(B)	(C)	(D)	(E)	(F)
1	**Intrastate Toll Revenue Total:**					
2	December 1999 Total Toll Revenues	$2,282,937	0			
3	Total Fourth Quarter Toll Revenues	$2,282,937	$0	$27,395,244		
4	Staff Proposed Annualized Intrastate Toll Revenues				$30,341,703	
5	Staff Adjustment to Annualize Intrastate Toll Revenues *(Note d)*					($2,946,459)
6	Less: USWC's Proposed Adjustment to Annualize Intrastate Toll Revenues (Note e)					($3,306,458)
7	Staff Adjustment to Restate Intrastate Toll Revenue Annualization					$359,999
8	STAFF ADJUSTMENT TO RESTATE INTRASTATE TOLL REVENUE ANNUALIZATION - ROUNDED $000					$360

Footnotes :

(a) All amounts per Company Workpapers and MR4 Reports

(b) No adjustments to recorded values are required, since linear regression of toll revenues indicates December 1999 recorded values are consistent with revenue trends (see UTI 47-18)

(c) Staff methodology same as USWC, adjustment due to Company input data error.

(d) The annualized percentage reduction in toll revenues per Staff's adjustment 21.5%

(e) The annualized percentage reduction in toll revenues per USWC's adjustme 24.1%

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
REVERSAL OF ACCESS ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	INTRASTATE Arizona Amount
	(A)	(B)	(C)
1	USWC Proposed Access Revenue Annualization Adjustment	dj. P-01 Workpaper	$1,983,000
2	Normalization of Out of Period Access Revenues	UTI 43-20, Att. B	(159,421)
3	Staff Adjustment to Reverse USWC's Proposed Annualization		($1,823,579)
4	STAFF ADJUSTMENT TO REVERSE USWC's ACCESS REVENUE ANNUALIZATION - ROUNDED		($1,824)

Footnotes:

(a) The Company's adjustment is reversed due to the absence of any notable trend in state access revenues.

(b) Upon elimination of the annualization based upon December 1999, it is necessary to normalize out of period portionS of correcting entries for Percent Local Usage (UTI 47-16)

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
MISCELLANEOUS REVENUE NORMALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	AMOUNT
	(A)	(B)	(C)
1	USWC Proposed Adjustment to Annualize Miscellaneous Revenues	Company WP's	($5,100)
2	Less: Elimination of Reciprocal Compensation Embedded in USWC Adjustment	Company WP's	(9,881)
3	Annualization of Broadband Revenues Embedded in USWC Adjustment	Note (a)	7,946
4	Annualization of Rent Compensation Embedded in USWC Adjustment	Note (b)	462
5	Sub-total of Embedded Adjustments Within USWC's Proposed Miscellaneous Reven	Lines 2+3+4	(6,573)
6	Net Adjustment Proposed by USWC to Annualize Growth in Miscellaneous Revenues	Line 1 - Line 5	1,473
7	STAFF ADJUSTMENT TO REVERSE USWC's MISCELLANEOUS REVENUE ANNUALIZATION		($1,473)

Footnotes:

(a) USWC Annualization of Broadband Revenues Appears per Workpapers:

	Reverse Booked	Monthly ProForma	December 99 Net Adjustment	Annualized Net Adjustment
Other Rent Revenue	18,162	1,593	(16,569)	(198,828)
Corporate Operations Revenues	2,398	208	(2,190)	(26,280)
Misc. Other Acct. 5260	(19,481)	108	19,589	235,068
Total Adjustment for Broadband in USWC Filing			$830	$9,960
Times Intrastate Factor				79.78%
Broadband Revenue Annualization Embedded in USWC Miscellaneous Revenue Adjustment				$7,946

(b)

December 1999 Rent Compensation in Account 5240	3,762.7	
Times 12 to Annualize	12	months
	45,152	booked as negative revenues
Less: Per Books Rent Compensation	45,614	booked as negative revenues
Embedded Rent Compensation Adjustment (Redundant)	(462)	

(See also Schedule C-28 Rent Compensation)

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
DIRECTORY IMPUTATION PER AGREEMENT
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

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LINE NO.	DESCRIPTION	SOURCE	AMOUNT
	(A)	(B)	(C)
1	Directory Imputation Amount Per Stipulation in Docket No. E-1051-86-252		
2	Approved in ACC Decision No. 56020 dated June 13, 1988	Decision No. 56020	$43,000
3	Less: Value of Fees and Services Received from Dex in Test Period	Note (a)	(1,660)
4	STAFF ADJUSTMENT TO IMPUTE DIRECTORY REVENUES PER 1988 SETTLEMENT AGREEMENT		$41,340

Footnotes :

(a)	Consists of Publisher Products (per UTI 62-02B)	$855,753
	Administrative Services (per UTI 62-01A)	356,291
	Billing & Collection Service (per UTI 42-10)	447,584
		$1,659,628

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
BROADBAND CABLE TRANSACTIONS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	TEST PERIOD RECORDED $	INTRASTATE ADJUSTMENT PER STAFF
	(A)	(B)	(C)	(D)
1	**Recorded Test Period Revenues - Services Provided to BSI Inc.**	UTI 62-15A	$22,918	
2	Factor To Annualize 12 months / 10 Months	Ratio 12/10	1.200	
3	Annualized BSI Affiliate Revenues	Line 1 * Line 2	27,502	
4	Difference - Total State Revenue Adjustment	Line 3 - Line 1	4,584	
5	Intrastate Factor - Miscellaneous Revenues	Co WP's	79.78%	
6	Staff Revenue Annualization - BSI Affiliate Services	Line 4 * Line 5		3,657
7	**Recorded Test Period Negative Expenses - Services to BSI, Inc.**	UTI 62-16A	(5,724)	
8	Factor To Annualize 12 months / 10 Months	Ratio 12/10	1.200	
9	Annualized BSI Affiliate Negative Expenses	Line 1 * Line 2	(6,869)	
10	Difference - Total State Expense Adjustment	Line 3 - Line 1	(1,145)	
11	Intrastate Factor - Total Expenses	Sch. F, Total SG&A	71.84%	
12	Staff Expense Annualization - BSI Affiliate Services	Line 4 * Line 5		(822)
13	**Removal - Part 64 Broadband Expense Effects that Duplicate Affiliate Billings**	UTI 43-20A		2,890
14	STAFF ADJUSTMENT TO OPERATING INCOME TO ANNUALIZE BSI AFFILIATE TRANSACTIONS			$1,589

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
UNCOLLECTIBLES ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	TEST YEAR INTRASTATE AMOUNT
	(A)	(B)	(F)
1	Staff Proposed Adjusted Local Service Revenues	Schedule C-1	$937,608
2	Staff Proposed Adjusted Intrastate Access Revenues	"	113,428
3	Staff Proposed Adjusted Intrastate Toll Revenues	"	22,773
4	Total Revenues Subject to Uncollectibles	Lines 1+2+3	$1,073,810
5	Times USWC Proposed Normalized Uncollectibles Factor	UTI 48-13, Att. A	1.490%
6	Staff Annualized Uncollectibles Expense	Line 4 * Line 5	$16,000
7	Less: USWC's Annualized Uncollectible Expense	Schedule C-1	16,101
8	STAFF ADJUSTMENT TO ANNUALIZE TEST PERIOD INTRASTATE UNCOLLECTIBLE REVENUES		($101)

Witness: M. Brosch
Prefiled Direct Testimony

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US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SERVICE QUALITY PROGRAM COST ELIMINATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

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LINE NO.	DESCRIPTION	SOURCE	Test Period Revenue Amount	Test Period Expense Amount	Total Service Program Costs
	(A)	(B)	(C)	(D)	(E)
1	Recorded Arizona Service Quality Plan Financial Impact	UTI 42-11A	[redacted]		
2	Separation Factor for Account 6728	Co. Workpapers			
3	Total Intrastate Service Quality Impact	Line 1 * Line 2			
4	Less: Estimated Percentage Applicable to Citizens Exchange S	Note (a)			
5	Estimated Service Program Costs - Exchanges Being Sold	Line 3 * Line 4			
6	Program Costs Remaining in USWC Revenue Requirements	Line 3 - Line 5			
7	STAFF ADJUSTMENT TO EXCLUDE SERVICE QUALITY PLA	Note (b)	[redacted]		$9,611

Footnotes :

(a) Estimated Percentage for Citizens Exchange Sale based upon confidential information in UTI 51-02

(b) Revenues that are foregone must be imputed, while expense incurred are disallowed.

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
AFFILIATE TRANSACTION TRUE-UP NORMALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	ARIZONA RECORDED AMOUNT	INTRASTATE FACTOR	INTRASTATE AMOUNT	OUT OF PERIOD PROPOSED NORMALIZATION
	(A)	(B)	(C)	(D)	(E)
1	**OUT OF PERIOD AFFILIATE TRUE UP ENTRIES IMPACTING TEST PERIOD:**				
2	U S West Interprise America Inc. (for 1/98 through 12/98)	$54	71.80%	$39	($39)
3	U S West Business Resources Inc. (for 1/98 through 12/98)	(75)	70.48%	(53)	53
4	U S West Communications Services, Inc. (for 1/98 through 12/98)	235	71.80%	169	(169)
5	U S West Communications Services, Inc. (for 12/99 booked 2/00)	(713)	71.80%	(512)	(512)
6	USWC to Dex (for 2/98 through 12/98)	7	79.22%	6	(6)
7	U S West Dex, Inc. (for 7/98 through 12/98)	(18)	79.22%	(14)	14
8	U S West, Inc. (for 11/98, 12/98)	156	70.48%	110	(110)
9	U S West, Inc. (for 6/98, 12/98)	229	70.48%	161	(161)
10	U S West, Inc. (for 12/99 booked 2/00)	629	70.48%	443	443
11	U S West Information Technologies Inc. (for 1/98 through 12/98)	(2,430)	70.48%	(1,713)	1,713
12	U S West Information Techologies Inc. (for 1999 booked 4/00)	33	70.48%	23	23
13	U S West Long Distance, Inc. (for 1998)	(11)	70.48%	(8)	8
14	U S West Long Distance, Inc. (for 1999, booked 5/00))	(93)	70.48%	(66)	(66)
15	U S West Wireless, LLC (for 1998)	149	70.48%	105	(105)
16	TOTAL STAFF ADJUSTMENT TO NORMALIZE OUT OF PERIOD AFFILIATE ENTRIES				$1,087

Footnotes :

(a) All amounts derived from USWC's response to UTI 43-20, Attachment F.

(b) Separations Factors per Staff Schedule F.

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
EOP NONLABOR REVERSAL
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	USWC PROPOSED ADJUSTMENT	STAFF REVERSA ADJUSTMENT
	(A)	(B)	(C)	(D)
1	Maintenance	(a)	($9,259)	$9,259
2	Engineering Expense	(a)	453	(453)
3	Network Operations	(a)	1,996	(1,996)
4	Network Administration	(a)	192	(192)
5	Access Expense	(a)	(17,752)	17,752
6	Other	(a)	248	(248)
7	Total Cost of Svcs & Products		($24,122)	$24,122
8	Customer Operations	(a)	18,600	(18,600)
9	Corporate Operations	(a)	14,802	(14,802)
10	Property and Other Taxes	(a)		0
11	Uncollectibles	(a)		0
12	Tot Selling, General & Administrative		$33,402	($33,402)
13	Other Operating Income & Expense	(a)	366	(366)
14	Depreciation Expense	(a)		0
15	Universal Service Fund	(b)	1,370	n/a
16	Link Up America	(a)	(29)	29
17	Total Operating Expense		$10,987	
18	ACC STAFF ADJUSTMENT TO REVERSE USWC'S PROPOSED ANNUALIZATION OF NONLABOR EXPENSES USING THE DECEMBER 1999 TIMES 12 METHODOLOGY			($9,617)

FOOTNOTE:

(a) Source: USWC updated Adjustment P-01, End-of-Period Non-Labor.

(b) Source: Per USWC response to UTI 50-3, proforma USF and high cost fund amount should be "zero By not reversing this adjustment component, TY level is "zero".

ST COMMUNICATIONS
ET NO. T-1051B-99-105
YEAR-END WAGE & SALARY ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE

LINE NO.	DESCRIPTION		Salaries & Wages: Management Regular Payroll Expense (a)	Management Equivalent Employees (c)	Management Regular Pay Per Employee	Occupational Regular Payroll Expense (b)	Occupational Equivalent Employees (c)	Occupational Regular Pay Per Employee	Total
	(A)		(B)	(C)	(D)				
1	**Regular Pay Annualization**								
2	Oct-99								
3	Nov-99								
4	Dec-99								
5	Average Regular Pay								
6	Dec-99 Employee Level								
7	Times: Annualization Multiplier								
8	Annualization Adjustment - Regular Pay								
9	Add: Annualized Overtime/Premium Pay	(e)							
10	Add: TY Incentive Compensation	(d)							
11	Add: TY Termination Pay	(d)							
12	Add: TY Other Pay (not assignable)	(d), (h)							
13	ACC Staff Salary/Wage Annualization				$123,866,976			$246,450,544	370,317,520
14	Add: Benefits Loading (excluding Pensions &	(g)						20.737%	76,792,967
15	Add: Test Year Pension Expense	(j)							(18,034,372)
16	Add: Test Year Net PRB/OPEB Expense	(j), (k)							42,899,481
17	Total Benefits Expense								101,658,076
18	**ACC Staff Proposed Payroll & Benefits Expense**								471,975,595
							Salaries/Wages	Benefits	
19	Less: Test Year Expense	(f)					($365,705,291)	($99,673,981)	(465,379,272)
20	Less: USWC EOP Labor Annualization Adjustment (P-01)	(f)					(21,355,261)	(3,202,942)	(24,558,203)
21	Less: USWC Wage/Salary Increase Adjustment (P-02)	(i)					n/a	n/a	0
22	**ACC Staff Proposed Annualization Adjustment**						($387,060,552)	($102,876,923)	($17,961,880)

(000's)	Salaries & Wages		Benefits				
ACC ADJUSTMENT DISTRIBUTION	TY Distribution	Adjustment Distrib.	TY Distribution	Adjustment Distrib.	Total Arizona	%Intrastate	AZ Intrastate
Maintenance	50.35%	($8,431)	42.85%	($522)	($8,953)	74.39%	($6,660)
Engineering	1.24%	(208)	1.38%	(17)	(225)	76.16%	(171)
Network Operations	8.87%	(1,485)	16.34%	(199)	(1,685)	75.08%	(1,265)
Network Administration	0.44%	(73)	0.53%	(6)	(80)	72.38%	(58)
Access	0.00%	0	0.00%	0	0	n/a	0
Other	0.21%	(34)	0.15%	(2)	(36)	70.88%	(26)
Customer Operations	29.89%	(5,005)	32.23%	(393)	(5,398)	77.70%	(4,194)
Corporate Operations	9.00%	(1,506)	6.51%	(79)	(1,586)	79.22%	(1,256)
Total Operating Expense	100.00%	($16,743)	100.00%	($1,219)	($17,962)		($13,630)
	(f)		(f)			(f)	

ST COMMUNICATIONS
...KET NO. T-1051B-99-105
YEAR-END WAGE & SALARY ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE

FOOTNOTES:

(a) **Management Regular Pay Components**

	Oct-99	Nov-99	Dec-99
Basic Wages	[redacted]		
Paid Absence			
Short Period Sick			
Total			

Source: USWC Confidential response to UTI 42-5.

(b) **Occupational Regular Pay Components**

	Apr-98	May-98	Jun-98
Basic Wages	[redacted]		
Paid Absence			
Short Period Sick			
Total			

Source: USWC Confidential response to UTI 42-5.

(c) Source: USWC Confidential response to UTI 63-2.

(d) Source: USWC Confidential response to UTI 42-5.

(e) **Overtime Annualization**

	As Recorded	Multiplier	Annualized
Management Overtime	[redacted]		
1/99 -- 2/99			
3/99 -- 12/99			
Total Manag			
Occupational Over			
1/1/99 -- 8/14/			
8/15/99 -- 12/3			
Total Occup			
Totals			

Source: USWC Confidential response to UTI 42-5.

(f) Source: USWC Adjustment P-01 workpapers.

(g)

Benefits Loading	Benefits excl PRB	Salary/Wage	Benefits Factor
12ME December	[redacted]		
12ME December			
12ME December			

Source: USWC Confidential response to UTI 20-3, UTI 42-4, UTI 18-25 & UTI 42-5.

(h) TY Other Pay (not assigned) attributed to *Occupational for presentational* purposes.

(i) USWC Adjustment P-02 is reversed through a separate ACC Staff Adjustment.

(j) Source: USWC Confidential response to UTI 42-4.

(k) **Test Year Net PRB/OPEB Expense**

MR Basis Expense -- Test Year	[redacted]
OBK 172 -- Test Year	
Total	$42,899,481

Sources: USWC Confidential response to UTI 42-4 & USWC P-02 Workpapers.

Witnes /er
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CONFIDENTIAL

US WES UNICATIONS
DOCKE 1051B-99-105
INCENTIVE COMPENSATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SHORT-TERM INCENTIVE PLAN	LONG-TERM INCENTIVE PLAN	ANNUAL BONUS PLAN	IT-CAREER STRUCTURE BONUS	OCCUPATIONAL TEAM AWARDS	TOTAL ARIZONA AMOUNT	USWC %INTRASTATE (c)	INTRASTATE INCENTIVE COMPENSATION	STAFF ADJUSTMENT
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1	**Test Year Incentive Compensation Expense**									
2	Maintenance A/C 61xx	[redacted]					$209	0.7439	$155	($155)
3	Engineering Expense A/C 6535						(43)	0.7616	(32)	32
4	Network Operations A/C 6534						269	0.7508	202	(202)
5	Network Administration A/C 6532						28	0.7238	20	(20)
6	Access Expense						0	0.6065	0	0
7	Other						0	0.7088	0	0
8	Total Cost of Svcs & Products						463		345	(345)
9	Customer Operations A/C 66xx						2,646	0.7770	2,056	(2,056)
10	Corporate Operations A/C 67xx						3,836	0.7922	3,039	(3,039)
11	Property and Other Taxes						0	0.7249	0	0
12	Uncollectibles						0	0.9197	0	0
13	Tot Selling, General & Administrative						6,482		5,095	(5,095)
14	Total Expense						$6,945		$5,440	
		(a)	(a)	(a)	(a)	(b)				
15	ACC STAFF ADJUSTMENT TO DISALLOW THE TEST YEAR COST OF CERTAIN INCENTIVE COMPENSATION PLANS									($5,440)

FOOTNOTES:

(a) Source: USWC confidential response to RUCO 29-14S1, Attachment A.
(b) Source: USWC response to UTI 43-20, Attachment J.
(c) Source: ACC Staff Schedule F.

Witness: S. Carver
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
SOP 98-1 (INTERNAL-USE SOFTWARE)
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	REFERENCE	CALCULATION AMOUNT	ACC STAFF TEST YEAR ADJUSTMENT
	(A)	(B)	(C)	(D)
1	**EXPENSE REDUCTION**			
2	1999 Software Costs Eligible for Capitalization -- Total USWC	(a)	[redacted]	
3	Arizona Prorate Factor	(a)		
4	Total State Expense, Account 6724	Line 2 * Line 3		
5	%Intrastate	(b)		
6	Proforma Intrastate Operating Expense Reduction, Account 6724	Line 4 * Line 5		
7	**AMORTIZATION**			
8	Proforma Intrastate Amount Eligible for Capitalization	Per Line 6		
9	Amortization Period	(a)		
10	Annual Intrastate Amortization, Account 6564	Line 8 / Line 9		
11	**CORRECTION ADJUSTMENT**			
12	USWC Adjustment to Correct Test Year Accounting for SOP 98-1, Account 6724	(b)		
13	ACC STAFF ADJUSTMENT TO CAPITALIZE, AMORTIZE AND CORRECT TEST YEAR INTERNAL-USE SOFTWARE COST	Line 6 + Line 10 + Line 12		($32,313)

FOOTNOTES:
(a) Source: USWC confidential response to UTI 67-4.
(b) Source: USWC response to UTI 43-20, Attachment G.

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
USWC PAYROLL ADJUSTMENT REVERSAL
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	USWC'S PROFORMA WAGE, SALARY & BENEFIT EXPENSE ANNUALIZATION ADJUSTMENT: MANAGEMENT [3/1/00 Increase]	OCCUPATIONAL [8/15/00 Increase]	TOTAL	ACC Staff ADJUSTMENT
	(A)	(B)	(C)	(D)	(E)
1	Operating Expenses:				
2	Maintenance	$1,597	$4,930	$6,527	($6,527)
3	Engineering	145	(2)	143	(143)
4	Network Operations	644	454	1,099	(1,099)
5	Network Administration	14	36	50	(50)
6	Other Property, Plant & Equipment	3	38	41	(41)
7	Customer Operations	1,381	2,604	3,984	(3,984)
8	Executive, Planning & Legal	192	1	192	(192)
9	Accounting & Finance	198	39	238	(238)
10	External Relations	170	8	177	(177)
11	Human Resources	144	13	157	(157)
12	Information Management	354	12	365	(365)
13	Other Corporate	107	29	136	(136)
14	Total	$4,948	$8,161	$13,109	
		(a)	(a), (b)		
15	ACC STAFF ADJUSTMENT TO REVERSE USWC'S PROPOSED POST-TEST YEAR PAYROLL ADJUSTMENT				($13,109)

FOOTNOTE:
(a) USWC Adjustment P-02, Revised 5/3/00.
(b) Correct Occupational Annualization

	USWC Intrastate Annual. Wages	8/15/00 Increase 3.50%	FICA Impact 7.65%	Savings Plan 2.84%	Group Life 0.1812%	Revised USWC Adustment	Less: Amounts Per USWC Update	Informational Correction Adjustment
Maintenance	$110,453	$3,866	$296	$110	$7	$4,278	($4,930)	($652)
Engineering	(53)	(2)	(0)	(0)	(0)	(2)	2	0
Network Operations	10,174	356	27	10	1	394	(454)	(60)
Network Administrati	801	28	2	1	0	31	(36)	(5)
Other Prop, Plant &	844	30	2	1	0	33	(38)	(5)
Customer Operation	58,333	2,042	156	58	4	2,260	(2,604)	(344)
Exec, Planning & Le	21	1	0	0	0	1	(1)	(0)
Accounting & Financ	882	31	2	1	0	34	(39)	(5)
External Relations	170	6	0	0	0	7	(8)	(1)
Human Resources	290	10	1	0	0	11	(13)	(2)
Info Management	260	9	1	0	0	10	(12)	(2)
Other Corporate	656	23	2	1	0	25	(29)	(4)
Total	$182,831	$6,399	$490	$182	$12	$7,082	($8,161)	($1,079)

(Informational Only -- correction to USWC filing if ACC does not adopt Staff's proposed adjustment reversal.)

Witness: G. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
PROFORMA DEPRECIATION ANNUALIZATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	ACCOUNT	TOTAL STATE 12/31/99 INVESTMENT	TOTAL STATE EXCHANGE SALE	%INTRASTATE	INTRASTATE 12/31/99 INVESTMENT	INTRASTATE EXCHANGE SALE	STAFF UPDATED TY ACCRUAL DEPR RATES	ACC STAFF PROFORMA DEPR. 12/31/99 INVESTMENT	ACC STAFF PROFORMA DEPR. EXCHANGE SALE
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1	Motor Vehicles	2112	$67,008	$2,204	0.7089	$47,502	$1,562	2.8%	1,330	44
2	Spec Purpose Vehicles	2114	25	0	0.7089	18	0	13.7%	2	0
3	Garage Work Equipment	2115	1,356	0	0.7089	961	0	18.1%	174	0
4	Other Work Equipment	2116	22,416	423	0.7089	15,891	300	13.8%	2,193	41
5	Buildings	2121	162,763	14,155	0.7089	115,383	10,034	2.8%	3,231	281
6	Furniture	2122	1,704	7	0.7089	1,208	5	21.2%	256	1
7	Office Equipment	2123.1	5,478	18	0.7089	3,883	13	19.2%	746	2
8	Company Communication Equip (a), (d)	2123.2	1,467	83	0.7089	1,040	59	0.0%	0	0
9	General Purpose Computers	2124	112,017	772	0.7089	79,409	547	4.5%	3,573	25
10	Analog Switching Equip	2211	138,599	49	0.7996	110,824	39	16.2%	17,953	6
11	Digital Switching Equip	2212	819,226	51,289	0.7996	655,053	41,011	10.7%	70,091	4,388
12	Operator Systems	2220	7,080	0	0.9178	6,498	0	7.4%	481	0
13	Radio Systems	2231	35,323	14,698	0.6673	23,571	9,808	3.3%	778	324
14	Circuit Equip									
15	Circuit DDS	2232	8,492	418	0.6673	5,667	279	0.0%	0	0
16	Circuit Digital	2232	1,128,055	62,285	0.6673	752,751	41,563	8.9%	66,995	3,699
17	Circuit Analog	2232	48,900	5,422	0.6673	32,631	3,618	1.5%	489	54
18	Other Terminal Equip	2362	48,461	1,304	0.8273	40,092	1,079	7.1%	2,847	77
19	Public Tel Terminal Equip	2351	17,969	0	1.0000	17,969	0	0.0%	0	0
20	Pole Lines	2411	46,617	9,703	0.7380	34,403	7,161	6.3%	2,167	451
21	Aerial Cable Met	2421	164,522	32,219	0.7380	121,417	23,778	9.6%	11,656	2,283
22	Aerial Cable Non-Met	2421	6,183	1,651	0.7380	4,563	1,218	9.3%	424	113
23	Underground Cable Met	2422	348,312	11,073	0.7380	257,054	8,172	7.8%	20,050	637
24	Underground Cable Non-Met	2422	86,984	2,944	0.7380	64,194	2,173	11.2%	7,190	243
25	Buried Cable Met	2423	1,256,424	132,260	0.7380	927,241	97,608	11.1%	102,924	10,834
26	Buried Cable Non-Met	2423	17,245	3,913	0.7380	12,727	2,888	6.7%	853	193
27	Sub Cable Met	2424	3	3	0.7380	2	2	85.1%	2	2
28	Sub Cable Non-Met	2424	0	0	0.7380	0	0	5.0%	0	0
29	Intra Building Cable Met	2426	41,023	2,718	0.7380	30,275	2,006	3.2%	969	64
30	Intra Building Cable Non-Met	2426	581	6	0.7380	429	4	9.5%	41	0
31	Aerial Wire	2431	8,799	4,368	0.7380	6,494	3,224	17.4%	1,130	561
32	Conduit Systems	2441	305,068	17,670	0.7380	225,140	13,040	2.3%	5,178	300
33	Total		$4,908,100	$371,655		$3,594,290	$271,191	119.4%	$323,723	$24,625
			(a)	(a)	(a)		(a)	(b)		

34	ACC Staff Proforma Intrastate Depreciation		323,723
35	Add: Offbook Depreciation Annualization	(e)	4,178
36	Less: USWC's Proforma Depreciation Adjustment [P-03]		(107,968)
37	Less: Intrastate Per Book Depreciation [A/C 6561]	(c)	(222,881)
38	ACC STAFF ADJUSTMENT TO RECOGNIZE THE TEST YEAR UPDATE TO THE DEPRECIATION ACCRUAL RATES		($2,948)

FOOTNOTES:

(a) Source: USWC response to UTI 52-14.
(b) Source: ACC Staff witness Dunkel.
(c) Source: USWC response to UTI 46-06 for A/C 6561.
(d) Source: USWC response to UTI 55-2.

(e) Offbook Depreciation Annualization

12/99 ST AFUDC/ CRADS	$153
12/99 AFUDC	195
Subtotal	$348
Annualization Factor	12
Annualized OBK Amount	$4,178

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
INTEREST SYNCHRONIZATION ADJUSTMENT
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION		SOURCE	WEIGHTED COST OF DEBT	INTRASTATE AMOUNT
	(A)		(B)	(C)	(D)
1	ACC Staff's Adjusted Rate Base (original cost)		Sched. B		$1,435,287
2	ACC Staff's Weighted Cost of Long Term Debt		Sched. D	3.52%	
3	ACC Staff's Weighted Cost of Short Term Debt		Sched. D	n/a	
4	Total Cost of Debt		[line 2 + 3]		3.52%
5	Synchronized Interest Deduction per ACC Staff		[line 1 x 4]		50,522
6	Less: Annualized Deductible Interest per U S WEST		(a)		(50,407)
7	Interest Deduction Difference (ACC Staff - Company)		[line 5 - 6]		115
8	Income Tax Increase/(Decrease):				
9	Federal Income Tax	32.2000%	[line 7*Rate]		($37)
10	State Income Tax	8.0000%	[line 7*Rate]		(9)
11	ACC STAFF INCOME TAX ADJUSTMENT FOR INTEREST SYNCHRONIZATION		[line 9 + 10]		($46)

FOOTNOTE:

(a)

USWC Deductible Interest	Amount
Adjusted Intrastate Per Book	$45,442
USWC Adjustment to Synchronize Interest	4,965
Total USWC Adjusted Interest Expense	$50,407

Source: USWC workpapers (regulated intrastate) and Adjustment C-06.

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
FCC DEREGULATED SERVICES REVENUE IMPUTATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule C-17
Page 1 of 1

LINE NO.	DESCRIPTION	1990 Financials Total Part X	Remove Wireless, Payphone & Video	FCC Dereg Included ATL By USWC Direct Filing	**ACC Revenue Imputation Adjustment (c)**	ADJUSTED INTRASTATE RESULTS
	(A)	(B)	(C)	(D)	(E)	(F)
	Revenues					
1	Miscellaneous	$102,104	($16,626)	$85,479	**$3,562**	$89,041
2	Total Operating Revenue	102,104	(16,626)	85,479	**$3,562**	$89,041
	Expenses					
3	Maintenance	43,975	(5,977)	37,998		$37,998
4	Engineering Expense	831	258	1,089		1,089
5	Network Operations	6,897	(442)	6,454		6,454
6	Network Administration	12	0	12		12
7	Access Expense	0	0	0		0
8	Other	64	(31)	34		34
9	Total Cost of Svcs & Products	51,779	(6,192)	45,586	**$0**	$45,586
10	Customer Operations	26,493	(12,056)	14,436		14,436
11	Corporate Operations	26,416	(5,848)	20,568		20,568
12	Property and Other Taxes	2,813	(1,958)	855	4	859
13	Uncollectibles	411	(2)	408		408
14	Tot Selling, General & Administrative	56,133	(19,865)	36,267	**$4**	$36,271
15	Other Operating Income & Expense	510	(125)	385		385
16	Depreciation Expense	8,644	(4,134)	4,510		4,510
17	Universal Service Fund	0	0	0		0
18	Link Up America	0	0	0		0
19	Total Operating Expense	117,065	(30,317)	86,748	**$4**	$86,752
20	**Income From Operations**	(14,961)	13,692	(1,269)	**$3,558**	$2,289
	Taxes					
21	Federal Income Tax	(5,979)	4,904	(1,075)	**$1,146**	71
22	State & Local Income Tax	(1,370)	1,441	71	**285**	356
23	**Net Operating Income** (Line 22-24-25)	($7,612)	$7,347	($265)	**$2,128**	$1,863
		(a)	(a)		(b)	

FOOTNOTES:

(a) Source: USWC workpapers – Regulated Intrastate results (Interface-1990 Financials).

(b) REVENUE IMPUTATION ADJUSTMENT

Telephone Plant In Service	$103,903	($59,435)	$44,468
Short-Term Plant Under Construction	0	0	0
Materials and Supplies	1,189	(624)	565
Accumulated Depr & Amort Reserve	(39,385)	16,514	(22,870)
Accumulated Deferred Income Tax	(7,461)	4,417	(3,044)
Customer Deposits	(205)		(205)
End-of-Period Rate Base	$58,042	($39,128)	$18,914
Times: ACC Staff Proposed Rate of Return (ACC Schedule D)			9.68%
NOI Required			$1,831
NOI Available			($265)
NOI Deficiency			$2,096
Revenue Conversion Factor			1.6995
Revenue Deficiency Imputation			$3,562

U.. ..ST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
FCC DEREG -- SEPARATIONS ADJUSTMENT
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	Intrastate Adjustments: USWC Proposed	Intrastate Adjustments: Staff Proposed	Intrastate Adjustments: Total	Composite Separation Factors: USWC Proposed (incl. FCC Dereg)	Composite Separation Factors: Staff Proposed (excl. FCC Dereg)	Composite Separation Factors: Net Change	Ratio (H=G/E)	ACC Staff Adjustment (I=H*D)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Revenues								
1	Local Service	($34,172)	$16,846	($17,326)	n/a	n/a	n/a	n/a	$-0
2	Network Access Service	(5,827)	(1,824)	(7,651)	n/a	n/a	n/a	n/a	0
3	Long Distance Network Service	(7,905)	360	(7,545)	n/a	n/a	n/a	n/a	0
4	Miscellaneous	(10,594)	47,086	36,492	n/a	n/a	n/a	n/a	0
5	Total Operating Revenues	(58,498)	62,469	3,971					0
	Expenses								
6	Maintenance	(3,741)	(2,015)	(5,756)	0.7439	0.6377	-0.1062	-14.28%	822
7	Engineering Expense	35	(734)	(699)	0.7616	0.6842	-0.0774	-10.16%	71
8	Network Operations	7,650	(4,561)	3,089	0.7508	0.6342	-0.1166	-15.52%	(479)
9	Network Administration	160	(319)	(159)	0.7238	0.7196	-0.0042	-0.58%	1
10	Access Expense	(19,378)	17,711	(1,667)	0.6065	0.6065	0.0000	0.00%	0
11	Other	799	(274)	525	0.7088	0.6579	-0.0509	-7.18%	(38)
12	Total Cost of Svcs & Products	(14,475)	9,807	(4,668)	0.7350	0.6369	-0.0981	-13.34%	377
13	Customer Operations	29,048	(28,834)	214	0.7770	0.7180	-0.0590	-7.59%	(16)
14	Corporate Operations	20,485	(65,542)	(45,057)	0.7922	0.7048	-0.0874	-11.03%	4,969
15	Property and Other Taxes	(3,568)	828	(2,740)	0.7249	0.7129	-0.0120	-1.66%	45
16	Uncollectibles	0	0	0	0.9197	0.8995	-0.0201	-2.19%	0
17	Total Selling, General & Administrative	45,965	(93,549)	(47,584)	0.7818	0.7184	-0.0634	-8.11%	4,998
18	Other Operating Income & Expense	829	(366)	463	n/a	n/a	n/a	n/a	0
19	Depreciation Expense	89,170	4,107	93,277	0.7008	0.6876	-0.0132	-1.88%	(1,755)
20	Universal Service Fund	1,370	0	1,370	0.0000	0.0000	0.0000	n/a	0
21	Link Up America	(29)	29	0	0.0000	0.0000	0.0000	n/a	0
22	Total Operating Expense	122,830	(79,972)	42,858	0.7449	0.6819	-0.0629	-8.45%	3,621
23	**Income From Operations**	($181,328)	$142,441	($38,887)	0.5702	0.5735	0.0033	0.57%	($3,621)
		(a)	(b)		(c)	(c)			

FOONOTES:

(a) Source: Company Test Year adjustments per USWC Exhibit GAR-S5 (corrected per response to UTI 56-2).
(b) Source: ACC Staff Schedule C (excluding C-18).
(c) Source: ACC Staff Schedule F.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
PUBLIC AFFAIRS/RELATIONS EXPENSE DISALLOWANCE
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	Above the Line Arizona Charges	Below the Line Arizona Charges	Total Arizona Charges	TEST YEAR INTRASTATE AMOUNT
	(A)	(B)	(C)	(D)	(E)	(F)
1	Arizona Charges for Public Policy / Public Affairs Activities	UTI 61-06	$2,348	$203	$2,551	
2	Recorded Below-the-line Percentage	Col. D / Col. E		8%		
3	Restate Charges for 50 Percent Below-the-line Reclassification	Col. E * 50/50%	1,276	1,276	2,551	
4	Adjustment to Reclassify Public Policy / Public Affairs Costs	Line 3 - Line 1	(1,073)	1,073	0	
5	Intrastate Factor	Schedule F	70.48%			
6	Intrastate Adjustment Amount	Line 4 * Line 5	(756)			(756)
7	STAFF ADJUSTMENT TO PARTIALLY DISALLOW PUBLIC/COMMUNITY AFFAIRS					($756)

Witness: M. Brosch
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
US WEST INC. DEPARTMENTAL DISALLOWANCES
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION		SOURCE	ARIZONA INTRASTATE AMOUNT
	(A)		(B)	(C)
1	U S West, Inc. Parent Company Charges by Responsibility Center:			
2	President and CEO	RC 0210000	UTI 46-20A	[redacted]
3	Executive Vice President and CFO	RC 0100000	"	
4	Strategic Planning	RC 0220000	"	
5	Corporate Development	RC 0230000	"	
6	Retired Officer Support	RC 0304000	"	
7	Vice President - Public Relations	RC 0500000	"	
8	Foundation Operations	RC 0530000	"	
9	Cash Management	RC 0731000	"	
10	Delaware Legislative	RC 0811000	"	
11	Total USWI Departmental Charges for Partial Disallowance		Sum Lines 2 - 10	2,284
12	Staff's Disallowance Factor Applied to USWI Costs		Note (a)	50%
13	ACC STAFF ADJUSTMENT TO PARTIALLY DISALLOW USWI ALLOCATED COS		Line 11 * 12	($1,142)

Footnotes:

(a) In Decision No. 58927 at pages 25 through 31, the Commission disallowed either 50% or 100% of the costs in most of these RC's. Staff has applied the lower 50% disallowance factor, recognizing changes in the makeup of USWI since 1994.

Witness: M. Brosch
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
EMPLOYEE CONCESSION ALLOCATION TO INTERSTATE
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	INTRASTATE AMOUNT
	(A)	(B)	(C)
1	Test Period Employee Telephone Concession Benefits - Negative Revenues	UTI 52-13	[redacted]
2	Allocation Factor to Attribute Employee Benefits to the Interstate Jurisdiction	Note (a)	
3	ACC STAFF ADJUSTMENT TO ALLOCATE EMPLOYEE CONCESSIONS	Line 1 * Line 2	($471)

Footnotes:

(a) [redacted]

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
DEPRECIATION ON UNRECORDED RETIREMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION			PROPERTY VINTAGE	VINTAGE INVESTMENT AMOUNT	STAFF UPDATED TY ACCRUAL DEPR RATES	DEPRECIATION ON VINTAGE INVESTMENT	%INTRASTATE	INTRASTATE AMOUNT
	(A)			(B)	(C)	(D)	(E)	(F)	(G)
1	General Purpose Computers	361C	Account 2124	1989	$24,060	4.50%	$1,083	0.7089	$768
2	Digital Switching Equipment	DEZ	Account 2212	1955	397	10.70%	42	0.7996	34
3	Digital Circuit Equipment	CRD	Account 2232	1955	737	8.90%	66	0.6673	44
4	Underground Metallic Cable	UGM	Account 2422	1925	10,104	7.80%	788	0.7380	582
5	Buried Metallic Cable	BCM	Account 2423	1925	16,781	11.10%	1,863	0.7380	1,375
6	Intra-Building Metallic Cable	IBM	Account 2426	1925	3,211	3.20%	103	0.7380	76
7	Total				$55,290		$3,944		$2,877
					(a)	(b)		(c)	
8	ACC STAFF ADJUSTMENT TO REVERSE DEPRECIATION ON UNRECORDED RETIREMENTS								($2,877)

Footnotes:

(a) Source: USWC's RCND study, Exh. NHH-1, pages 26, 29, 34, 45, 48 and 53.

(b) Source: ACC Staff Schedule C-15.

(c) Staff Schedule F

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
RESERVED
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION
	(A)
1	RESERVED FOR FUTURE USE

Witness: S. Carver
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
PROPERTY TAX CORRECTION
TEST YEAR ENDING DECEMBER 31, 1999
(000's)

ACC Staff
Schedule C-24
Page 1 of 1

LINE NO.	DESCRIPTION	SOURCE	INTRASTATE AMOUNT
	(A)	(B)	(C)
1	Final Full Combined Cash Value	(a), (b)	[redacted]
2	Revised Statutory Assessment Ratio	(b)	
3	Assessed Value		
4	Average Tax Rate	(b)	
5	Total Arizona Annualized Property Tax		
6	%Intrastate	(c)	
7	Arizona Intrastate Annualized Property Tax		$49,661
8	Less: Intrastate Property Tax Included in USWC Updated Filing	(d), (e)	(50,465)
9	Less: OOP Property Tax Adjustment	(f)	(433)
10	ACC STAFF ADJUSTMENT TO CORRECT USWC'S YEAR-END ANNUALIZATION OF PROPERTY TAX EXPENSE		($1,238)

FOONOTES:

(a) Source: USWC workpapers supporting updated Adjustment P-01.
(b) Source: USWC response to UTI 45-11.
(c) Source: ACC Staff Schedule F.
(d) Arizona Intrastate Annualized Property Tax

AZ Property Tax Expense (MR5)		$69,394
USWC %Intrastate	(c)	0.7249
MR Basis Per Book		50,302
Add: USWC P-01 Property Tax Adjustme		163
USWC AZ Intrastate Annualized Property		$50,465

(e) Property tax effect of access line sale is handled through separate adjustment. This effect is intentionally excluded from the annualization adjustment calculation.
(f) Source: ACC Staff Schedule C-25.

Witness: S. Carver
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
OUT OF PERIOD PROPERTY AND OTHER TAXES
TEST YEAR ENDING DECEMBER 31, 1999
(000's)

LINE NO.	DESCRIPTION		REFERENCE	MONTH BOOKED	ACCRUAL ORIGINATING PERIOD	RECORDED TRANSACTION (whole dollars)	%INTRASTATE	TEST YEAR ADJUSTMENT (000's)
	(A)		(B)	(C)	(D)	(E)	(F)	(G)
1	Property Tax	7240.19	(a)	Sep-99	1994	[redacted]		
2		7240.19	(a)	Sep-99	1996			
3		7240.19	(a)	Sep-99	1997			
4	Subtotal		(c)					
5	Flat Rate License Tax	7240.30	(a), (b)	Jan-00	1999			
6	Use Tax	7240.91	(a)	Jun-99	1996			
7		7240.91	(a), (b)	Jan-00	1999			
8	Sales Tax Assumed	7240.93	(a), (b)	Jan-00	1999			
9	Total							
10	ACC STAFF ADJUSTMENT TO RECOGNIZE OUT-OF-PERIOD ADJUSTMENTS TO OTHER TAX EXPENSE							$2,061

FOOTNOTE:

(a) Source: USWC response to UTI 59-16.
(b) "Sign" intentionally not reversed on accruals recorded in 2000 that relate to test year operations.
(c) Adjustment for OOP property tax effects are considered in quantification of ACC Scheduled C-24 annualization adjustment.

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
OUT OF PERIOD INCOME TAXES
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION		REFERENCE	MONTH BOOKED	ACCRUAL ORIGINATING PERIOD	RECORDED TRANSACTION (whole dollars)	TEST YEAR ADJUSTMENT (000's)
	(A)		(B)	(C)	(D)	(E)	(F)
1	Federal Income Tax						
2	Operating ITC - Net	7210.1	(a)	Nov-99	1998	$75,374	($75)
3	Operating FIT	7220	(a)	Nov-99	1998	1,406,210	(1,406)
4		7220	(a)	Jun-99	1994	(424,348)	424
5	Deferred FIT - Net	7250.1	(a)	Nov-99	1998	(1,824,801)	1,825
6	Total Federal						768
7	State & Local Income Tax						
8	Operating ITC - Net	7210.2				n/a	0
9	Operating SIT/LIT	7230	(a)	Nov-99	1998	602,953	(603)
10		7230	(a)	Jun-99	1994	1,109,584	(1,110)
11	Deferred SIT/LIT - N	7250.2	(a)	Nov-99	1999	446,698	(447)
12	Total State						(2,159)
13	ACC STAFF ADJUSTMENT TO RECOGNIZE OUT-OF-PERIOD ADJUSTMENTS TO INCOME TAX EXPENSE						($1,392)

FOOTNOTE:
(a) Source: USWC response to UTI 43-20, Attachment H.

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

CONFIDENTIAL

LINE NO.	DESCRIPTION	SOURCE	TOTAL ARIZONA	% INTRASTATE	INTRASTATE AMOUNT
	(A)	(B)	(C)	(D)	(E)
1	Corporate Image Advertising, Account 6722 (External Relations	(a), (d)	[redacted]		
2	Olympic Sponosorship				
3	Account 6535 (Engineering Expense)	(b)			
4	Account 6611/12 (Sales Expense)	(b)			
5	Account 6722 (External Relations Expense)	(b)			
6	Account 6724 (Information Management Expense)	(b)			
7	Subtotal				
8	Sports Sponsorships				
9	Diamondbacks, Account 6722	(c), (d)			
10	Phoenix Suns, Acount 6722	(c), (d)			
11	Subtotal				
12	Total Image Advertising and Olympic Sponsorship				$9,931
13	ACC STAFF ADJUSTMENT TO ELIMINATE IMAGE ADVERTISING AND OLYMPIC / SPORTS SPONSORSHIP COSTS				($9,931)

FOOTNOTES:

(a) Source: USWC confidential response to UTI 64-22.
(b) Source: Value-in-Kind and cash payments per USWC response to RUCO 28-14.
(c) Source: USWC confidential response to UTI 65-8.
(d) Source: ACC Staff Schedule F.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
RENT COMPENSATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	TOTAL STATE AMOUNT	INTRASTATE AMOUNT 79.06%
	(A)	(B)	(C)	(D)
1	Company Proposed Annualized Arizona Rent Compensation	Company WPs	$48,091	
2	Test Period Recorded Rent Compensation - January through Dec 1999	"	45,614	
3	Company Proposed Annualization Adjustment P01	Line 1 - Line 2	$2,477	$1,958
4	December 1999 Times 12 - Annualized Rent Compensation Amount	Company WPs	45,152	
5	Corrected Annualization Adjustment - Overlap in Company's Adjustments	Line 1 - Line 5	2,939	2,323
6	**Incremental Staff Adjustment to Correct USWC's Overlapping Adjustments**	Line 5 - Line 3	462	365
7	Restated January 2000 Rent Compensation for Staff Rate of Return - Arizona Annual	Staff Workpaper StaffRevRPRG12000	47,420	
8	Less: Company Proposed Annualized Arizona Rent Compensation	Line 1	48,091	
9	**Staff Adjustment for Rent Compensation Rate of Return**	Line 7 - Line 8	(671)	(530)
10	STAFF ADJUSTMENT TO CORRECT AND RESTATE RENT COMPENSATION	Line 6 + Line 9		($165) Note (a)

Footnotes:

(a) Rent Compensation is recorded as Negative Miscellaneous Revenues

(b)

USWC's January 2000 Rent Compensation Study ROR	10.17%
Staff Proposed Overall ROR	9.68%
ROR Spread in Line 9 Adjustment	0.49%
Intrastate Dollars per Basis Point	(10.8)

Witness: M. Brosch
Prefiled Direct Testimony

CONFIDENTIAL

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
EXCHANGE SALE ALLOCATION ADJUSTMENTS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	SOURCE	INTRASTATE AMOUNT	STAFF ADJUSTMENT AMOUNT
	(A)	(B)	(C)	(D)
1	Arizona Total State Test Period Marketing Expenses	UTI 51-03	[redacted]	
2	Percentage of Arizona Revenues in Exchanges Being Sold	Note (a)		
3	Marketing Expenses Allocated by Staff to Exchanges Being Sold	Line 1 * 2		
4	Less: Marketing Expenses Allocated to Sold Exchanges per USWC	UTI 51-03		
5	Additional Marketing Expense Adjustment Required	Line 3 - Line 4		
6	Arizona Total State Test Period Corporate Operations Expenses	UTI 51-03		
7	Percentage Reduction in Corporate Expenses Assumed by Staff	Note (b)		
8	Corporate Expenses Allocated by Staff to Exchanges Being Sold	Line 6 * 7		
9	Less: Corporate Operations Expenses Allocated to Sold Exchanges per USWC	UTI 51-03		
10	Additional Corporate Operations Expense Adjustment Required	Line 8 - Line 9		
11	Depreciation for Exchange Sale at New Accrual Rates	Note (c)		
12	Allocated Per Books 1999 Depreciation Allocated to Exchange Sales by USWC	Co. W/P p-07		
13	Additional Depreciation Expense Adjustment Required			
14	ACC STAFF ADJUSTMENT TO REVISE EXPENSE ALLOCATIONS TO EXCHANGES SOLD			($11,233)

Footnotes :

(a) [redacted]
(b) See testimony of M. Brosch
(c) Source: ACC Adjustment C-15.

Witness: M. Brosch
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
RECIPROCAL COMPENSATION
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule C-30
Page 1 of 1

LINE NO.	DESCRIPTION	SOURCE	TEST PERIOD RECORDED REVENUES	TEST PERIOD RECORDED EXPENSES	NET COST OF INTRASTATE RECIPROCAL COMP.
	(A)	(B)	(C)	(D)	(E)
1	Recorded Test Period Reciprocal Compensation - Eliminated by	Co Adj. W/Ps	$6,561	$17,982	$11,421
2	ACC STAFF ADJUSTMENT TO RESTATE RECIPROCAL COMPENSATION AT TEST PERIOD RECORDED LEVELS				($11,421)

Witness: S. Carver
Prefiled Direct Testimony

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
CAPITAL STRUCTURE SUMMARY
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

ACC Staff
Schedule D
Page 1 of 1

LINE NO.	DESCRIPTION	CAPITAL RATIO	COST RATES	WEIGHTED COST
	(A)	(C)	(D)	(E)
	AS FILED BY USW: (a)			
1	Debt	47.60%	7.39%	3.52%
2	Common Equity	52.40%	14.00%	7.34%
3	Total Capital	100.00%		10.86%
	ACC STAFF PROPOSED: (b)			
4	Debt	47.60%	7.39%	3.52%
5	Common Equity	52.40%	11.75%	6.16%
6	Total Capital	100.00%		9.68%

FOOTNOTES:

(a) SOURCE: Capital Structure per USWC Exhibit GAR-2 (Redding Direct Testimony).
(b) ACC Staff Witness Hill Exhibit ___ (SGH-2), Schedule 14.

Witness: S. Carver
Prefiled Direct Testi

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
RECONCILIATION OF POSITIONS
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	SCH./ ADJ. NO.	DESCRIPTION	AMOUNT	DIFFERENCE IN PRETAX RETURN	REVENUE REQUIREMENT VALUE
		(A)	(B)	(C)	(D)
1	SCH. A	**USWC'S Revenue Requirement**			$201,221
2	SCH. B	**Return Difference At USWC'S Rate Base**	$1,422,100	-2.05%	(29,159)
3		Subtotal Revenue Requirement			172,062
				PRE-TAX RETURN	
4		**ACC STAFF RATE BASE ADJUSTMENTS**			
5	B-1	UNRECORDED RETIREMENTS	0	13.99%	0
6	B-2	SOP 98-1 (INTERNAL-USE SOFTWARE)	(7,417)	13.99%	(1,038)
7	B-3	FAS87 PENSION ASSET	(42,344)	13.99%	(5,924)
8	B-4	CASH WORKING CAPITAL	(9,469)	13.99%	(1,325)
9	B-5	PROFORMA DEPRECIATION -- RESERVE REVERSAL	64,565	13.99%	9,032
10	B-6	BROADBAND CABLE TRANSACTIONS (ASSET TRANSFER)	6,791	13.99%	950
11	B-7	FCC DEREG -- SEPARATIONS ADJUSTMENT	1,061	13.99%	148
12		Total Value of ACC Staff Rate Base Adustments	13,187		1,845
13		ACC Staff Rate Base Recommendation	$1,435,287		
				REVENUE CONVERSION MULTIPLIER	
14	SCH. A	USWC Net Operating Income	$43,833		
15		**ACC Staff NET OPERATING INCOME ADJUSTMENTS**			
16	C-1	REVENUE ANNUALIZATION - RECURRING LOCAL SERVICE	5,314	1.6995	(9,032)
17	C-2	ANNUALIZATION OF INTRASTATE TOLL REVENUES	215	1.6995	(366)
18	C-3	REVERSAL OF ACCESS ANNUALIZATION	(1,091)	1.6995	1,853
19	C-4	MISCELLANEOUS REVENUE NORMALIZATION	(881)	1.6995	1,497
20	C-5	DIRECTORY IMPUTATION PER AGREEMENT	24,722	1.6995	(42,014)
21	C-6	BROADBAND CABLE TRANSACTIONS	950	1.6995	(1,615)
22	C-7	UNCOLLECTIBLES ANNUALIZATION	61	1.6995	(103)
23	C-8	SERVICE QUALITY PROGRAM COST ELIMINATION	5,747	1.6995	(9,768)
24	C-9	AFFILIATE TRANSACTION TRUE-UP NORMALIZATION	(650)	1.6995	1,105
25	C-10	EOP NONLABOR REVERSAL	5,751	1.6995	(9,774)
26	C-11	YEAR-END WAGE & SALARY ANNUALIZATION	8,151	1.6995	(13,852)
27	C-12	INCENTIVE COMPENSATION	3,253	1.6995	(5,529)
28	C-13	SOP 98-1 (INTERNAL-USE SOFTWARE)	19,323	1.6995	(32,840)
29	C-14	USWC PAYROLL ADJUSTMENT REVERSAL	7,839	1.6995	(13,322)
30	C-15	PROFORMA DEPRECIATION ANNUALIZATION	1,763	1.6995	(2,996)
31	C-16	INTEREST SYNCHRONIZATION ADJUSTMENT	46	1.6995	n/a
32	C-17	FCC DEREGULATED SERVICES REVENUE IMPUTATION	2,128	1.6995	(3,616)
33	C-18	FCC DEREG -- SEPARATIONS ADJUSTMENT	(2,165)	1.6995	3,680
34	C-19	PUBLIC AFFAIRS/RELATIONS EXPENSE DISALLOWANCE	452	1.6995	(768)
35	C-20	US WEST INC. DEPARTMENTAL DISALLOWANCES	683	1.6995	(1,161)
36	C-21	EMPLOYEE CONCESSION ALLOCATION TO INTERSTATE	282	1.6995	(479)
37	C-22	DEPRECIATION ON UNRECORDED RETIREMENTS	1,721	1.6995	(2,924)
38	C-23	RESERVED	0	1.6995	0
39	C-24	PROPERTY TAX CORRECTION	740	1.6995	(1,258)
40	C-25	OUT OF PERIOD PROPERTY AND OTHER TAXES	(1,233)	1.6995	2,095
41	C-26	OUT OF PERIOD INCOME TAXES	1,392	1.6995	(2,365)
42	C-27	IMAGE ADVERTISING, OLYMPIC/SPORTS SPONSORSHIP	5,939	1.6995	(10,092)
43	C-28	RENT COMPENSATION	99	1.6995	(168)
44	C-29	EXCHANGE SALE ALLOCATION ADJUSTMENTS	6,717	1.6995	(11,416)
45	C-30	RECIPROCAL COMPENSATION	(6,830)	1.6995	11,607
46	C-31	RESERVED	0	1.6995	0
47	C-32	RESERVED	0	1.6995	0
48	C-33	RESERVED	0	1.6995	0
49		Total Value of ACC Staff Net Operating Income Adj.	90,438		(153,620)
50	SCH. A	ACC Staff Net Operating Income Recommendation	$134,271		
51		**OTHER REVENUE REQUIREMENT DIFFERENCES**			
52		Bellcore 3 Year Adjustment			0
53		Automatic Adjustment Revenue Requirement			(13,252)
54		Total Other Differences			(13,252)
55		RECONCILED REVENUE REQUIREMENT			$7,034
56		UNRECONCILED DIFFERENCE			208
57	SCH. A	**ACC STAFF REVENUE REQUIREMENT RECOMMENDATION**			$7,242

US WEST COMMUNICATIONS
DOCKET NO. T-1051B-99-105
CALCULATION OF PRE-TAX RETURN
TEST YEAR ENDING DECEMBER 31, 1999
INTRASTATE (000's)

LINE NO.	DESCRIPTION	WEIGHTED COST (SCH. D)	REVENUE CONVERSION MULTIPLIER (SCH. A-1)	PRETAX RETURN
	(A)	(B)	(C)	(D)
	RETURN PER ACC STAFF:			
1	Debt	3.52%	1.0000	3.52%
2	Common Equity	6.16%	1.6995	10.47%
3	ACC Staff Total Pretax Return	9.68%		13.99%
	RETURN PER USWC:			
4	Long Term Debt	3.52%	1.0000	3.52%
5	Common Equity	7.34%	1.7056	12.52%
6	USWC Total Pretax Return	10.86%		16.04%
7	**DIFFERENCE IN PRETAX RETURNS**			-2.05%

U; ;OMMUNICATIONS
DO NO. T-1051B-99-105
SEPARATION FACTOR COMPOSITES
TEST YEAR ENDING DECEMBER 31, 1999

Source: Company Workpapers

LINE NO.	DESCRIPTION	1990 Financials: Total State MR Basis	Total State JD Offbook	Total State JR	Intrastate JR	FCC Dereg PART X	Remove Wireless, Payphone & Video	USWC PROPOSED (Includes FCC Dereg in Intrastate): REGULATED INTRASTATE	% REGULATED INTRASTATE FACTORS	ACC STAFF PROPOSED (Excludes FCC Dereg from Intrastat): REGULATED INTRASTATE	% REGULATED INTRASTATE FACTORS
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Revenues										
1	Local Service	$954,933,510		954,933,510	954,933,510			954,933,510	1.0000	954,933,510	1.0000
2	Network Access Service	603,899,634		603,899,634	121,079,275			121,079,275	0.2005	121,079,275	0.2005
3	Long Distance Network Service	30,371,863		30,371,863	30,318,408			30,318,408	0.9982	30,318,408	0.9982
4	Miscellaneous	178,544,239		178,544,239	56,957,039	102,104,364	(16,625,712)	142,435,691	0.7978	56,957,039	0.3190
5	Total Operating Revenues	1,767,749,246	0	1,767,749,246	1,163,288,232	102,104,364	(16,625,712)	1,248,766,884	0.7064	1,163,288,232	0.6581
	Expenses										
6	Maintenance	357,833,823	(197,627)	357,636,196	228,065,407	43,974,697	(5,977,110)	266,062,994	0.7439	228,065,407	0.6377
7	Engineering Expense	14,061,421		14,061,421	9,621,260	830,744	257,820	10,709,824	0.7616	9,621,260	0.6842
8	Network Operations	55,375,419		55,375,419	35,120,336	6,896,632	(442,366)	41,574,602	0.7508	35,120,336	0.6342
9	Network Administration	2,834,672		2,834,672	2,039,722	11,954	0	2,051,676	0.7238	2,039,722	0.7196
10	Access Expense	34,298,658		34,298,658	20,801,064	0	0	20,801,064	0.6065	20,801,064	0.6065
11	Other	666,121		666,121	438,267	64,473	(30,580)	472,160	0.7088	438,267	0.6579
12	Total Cost of Svcs & Products	465,070,114	(197,627)	464,872,487	296,086,056	51,778,500	(6,192,236)	341,672,320	0.7350	296,086,056	0.6369
13	Customer Operations	244,845,308		244,845,308	175,807,054	26,492,757	(12,056,399)	190,243,412	0.7770	175,807,054	0.7180
14	Corporate Operations	204,386,153	31,036,120	235,422,273	165,922,800	26,416,024	(5,848,360)	186,490,464	0.7922	165,922,800	0.7048
15	Property and Other Taxes	71,165,545		71,165,545	50,730,583	2,813,260	(1,958,238)	51,585,605	0.7249	50,730,583	0.7129
16	Uncollectibles	20,272,457		20,272,457	18,235,984	410,728	(2,480)	18,644,232	0.9197	18,235,984	0.8995
17	Total Selling, General & Administrative	540,669,463	31,036,120	571,705,583	410,696,421	56,132,769	(19,865,477)	446,963,713	0.7818	410,696,421	0.7184
18	Other Operating Income & Expense	13,607		13,607	(366,413)	509,838	(125,328)	18,097	n/a	(366,413)	n/a
19	Depreciation Expense	363,709,774	(21,631,550)	342,078,224	235,204,331	8,644,227	(4,134,396)	239,714,162	0.7008	235,204,331	0.6876
20	Universal Service Fund	0		0	(1,369,596)	0	0	(1,369,596)	0.0000	(1,369,596)	0.0000
21	Link Up America	0		0	(88,374)	0	0	(88,374)	0.0000	(88,374)	0.0000
22	Total Operating Expense	1,369,462,958	9,206,943	1,378,669,901	940,162,425	117,065,334	(30,317,437)	1,026,910,322	0.7449	940,162,425	0.6819
23	**Income From Operations**	398,286,288	(9,206,943)	389,079,345	223,125,807	(14,960,970)	13,691,725	221,856,562	0.5702	223,125,807	0.5735
	Taxes										
24	Federal Income Tax	103,960,088	(1,982,471)	101,977,617	56,978,015	(5,776,537)	4,903,828	56,105,306	0.5502	56,978,015	0.5587
25	State & Local Income Tax	31,769,184	(498,340)	31,270,844	16,940,420	(1,572,232)	1,440,704	16,808,892	0.5375	16,940,420	0.5417
26	**Net Operating Income**	$262,557,016	($6,726,132)	$255,830,884	$149,207,372	($7,612,201)	$7,347,193	$148,942,364	0.5822	$149,207,372	0.5832
	RATE BASE										
27	Telephone Plant In Service	$5,094,841,677	21,201,750	5,116,043,427	3,654,638,781	103,903,288	(59,435,100)	3,699,106,969	0.7230	3,654,638,781	0.7143
28	Short-Term Plant Under Construction	0	0	0	0	0	0	0	0.0000	0	0.0000
29	Materials and Supplies	25,353,734	0	25,353,734	17,820,166	1,189,341	(623,909)	18,385,598	0.7252	17,820,166	0.7029
30	Allowance for Cash Working Capital	0	0	0	(24,398,365)	0	0	(24,398,365)	1.0000	(24,398,365)	1.0000
31	Accumulated Depr & Amort Reserve	(2,578,617,059)	50,166,662	(2,528,450,397)	(1,795,617,425)	(39,384,691)	16,514,403	(1,818,487,713)	0.7192	(1,795,617,425)	0.7102
32	Accumulated Deferred Income Tax	(389,102,118)	(25,611,636)	(414,713,754)	(306,015,636)	(7,460,794)	4,416,554	(309,059,876)	0.7452	(306,015,636)	0.7379
33	Customer Deposits	(7,711,169)	0	(7,711,169)	(5,490,899)	(204,959)	0	(5,695,858)	0.7387	(5,490,899)	0.7121
34	Land Development Agreement Deposits	(24,660,882)	0	(24,660,882)	(18,039,780)	0	0	(18,039,780)	0.7315	(18,039,780)	0.7315
35	Other Assets & Liabilities	0	0	0	0	0	0	0	0.0000	0	0.0000
36	**Net Rate Base**	$2,120,104,183	$45,756,776	$2,165,860,959	$1,522,896,842	$58,042,185	($39,128,052)	$1,541,810,975	0.7119	$1,522,896,842	0.7031

SOURCE: USWC update workpapers WP1-AZFACTOR (AZ1299fl.XLS).

EXHIBIT
S-7
Admitted

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION	)	
OF US WEST COMMUNICATIONS, INC. A	)	
COLORADO CORPORATION, FOR A	)	
HEARING TO DETERMINE THE EARNINGS	)	DOCKET NO. T-01051B-99-0105
OF THE COMPANY FOR RATEMAKING	)	
PURPOSES, TO FIX A JUST AND	)	
REASONABLE RATE OF RETURN THEREON	)	
AND TO APPROVE RATE SCHEDULES	)	

DIRECT TESTIMONY

OF

THOMAS REGAN

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

AUGUST, 2000

I. STATEMENT OF QUALIFICATIONS AND INTRODUCTION

3 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 A. My name is Thomas M. Regan. My business address is 8625 Farmington Cemetery Road,

5 Pleasant Plains, Illinois, 62677.

6

7 Q. WHAT IS YOUR PRESENT OCCUPATION?

8 A. I am an Economist with the firm of William Dunkel and Associates. I have been employed by

9 William Dunkel and Associates since 1994. Since that time, I have regularly provided

10 consulting services in telephone regulatory proceedings throughout the country.

11

12 Q. HAVE YOU PREVIOUSLY TESTIFIED?

A. Yes. I testified on behalf of the Colorado Office of Consumer Counsel in a rate rebalancing case

14 involving U.S. West Communications, Inc., Docket No. 96S-257T et al. In addition, I pre-filed

15 testimony in Pennsylvania Docket No. R-00953409. However, that case was settled prior to

16 hearings.

17

18 Q. HAVE YOU PREPARED AN APPENDIX THAT DESCRIBES YOUR QUALIFICATIONS?

19 A. Yes. My qualifications are shown on Appendix A.

20

21 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

22 A. The purpose of my Direct Testimony in this proceeding is to discuss the proper economic

principles that apply to the calculation of economic costs, and the role that these costs have in this proceeding. In this testimony, I discuss the Total Service Long-Run Incremental Cost (TSLRIC), and its proper role as a price floor for services. In addition, I discuss the Stand-Alone Cost, and its proper role as a price ceiling for services. Finally, I discuss how the TSLRIC and Stand-Alone Costs are properly used to identify the existence of subsidies.

Q. WHAT IS THE TSLRIC, AND HOW IS IT CALCULATED?

A. There are at least two ways the TSLRIC of a service can be determined. One way to determine the TSLRIC is to calculate the costs that are avoided when the service in question is discontinued or eliminated, while all other services continue to be provided. This can be determined by calculating the difference between the total costs of providing all services, including the service in question, and the total cost of providing all services without the service in question. This method of calculating TSLRIC is consistent with USWC's definition of TSLRIC, as provided by Mr. Thompson in his Direct Testimony in this proceeding:

> The TSLRIC studies identify the total cost of offering the service - defined as the total costs incurred by U S WEST while offering the service, less the total costs that would be incurred by U S WEST if the service were not offered.[1]

An alternative method of calculating the TSLRIC is to determine the additional cost that is incurred when the service in question is added to a network that already provides all other services provided by the company. This method of calculating TSLRIC is consistent with the

[1]Thompson Direct Testimony, page 4, line 23.

definition of TSLRIC contained in the Arizona Corporations Commission's Rules and Regulations, Section R14-2-1102 (17), which provides the following definition:

> **"Total Service Long Run Incremental Cost."** The total additional cost incurred by a telecommunications company to produce the entire quantity of a service, given that the telecommunications company already provides all of its other services. Total Service Long run Incremental Cost is based on the least cost, most efficient technology that is capable of being implemented at the time the decision to provide the service is made.

When properly applied, either of the above definitions will lead to the proper calculation of TSLRIC costs.

Q. WHY IS THE TSLRIC THE APPROPRIATE PRICE FLOOR FOR A SERVICE?

A. As USWC indicated in its response to Data Request WDA 2-6 in this proceeding, as long as a service is priced equal to or above its properly calculated TSLRIC, the service is not receiving a cross-subsidy. If a service is priced below its properly calculated TSLRIC, the service is receiving a cross subsidy. Therefore, a price set equal to TSLRIC represents the minimum level at which a service could be priced and not receive a subsidy. As long as the price for a service is at least covering the additional cost that is directly caused by that service, the company is better off providing that service than not providing it. If the price for a service does not cover at least the additional cost that is directly caused by the provision of that service, the company is better off by not providing that service. For these reasons, the TSLRIC is generally accepted as the appropriate price floor for a service.

Q. IS IT COMMON FOR THE TSLRIC COSTS TO EXCLUDE A LARGE PORTION OF THE

TOTAL COSTS OF PROVIDING TELECOMMUNICATIONS SERVICES?

2 A. Yes. It is common for the TSLRIC costs to exclude a large portion of the total costs of providing
3 telecommunications services. As Mr. Dunkel testified in his Direct Testimony, the provision of
4 telecommunications services is engineered such that many services are provided over shared
5 network facilities whose costs would not be avoided even if any one of the services that are
6 provided using those facilities were eliminated or discontinued. As Mr.. Dunkel points out, the
7 costs of such network facilities represent a large portion of USWC's total investment in all
8 facilities combined. As a result, the calculated TSLRIC based on this conclusion exclude a
9 significant portion of the total costs of providing telecommunications services.
10
11 Q. IS THERE ANY PRACTICAL WAY TO ASSIGN SHARED COSTS ON THE BASIS OF
COST-CAUSATION?
13 A. No. The fundamental principle of TSLRIC costs is to assign costs on the basis of cost-causation.
14 If the costs of a facility are shared by more than one service, there is no practical way to assign
15 the costs of those facilities on the basis of cost-causation. In the case of shared costs, all of the
16 costs would be required to provide at least one other service in addition to the service in question.
17 Therefore, none of the shared costs would be added (avoided) if the service in question were
18 added (eliminated or discontinued) from a network that continued to provide all other services.
19
20 Q. HAS THE FCC RECOGNIZED THE DIFFICULTY OF ASSIGNING SHARED FACILITY
21 COSTS ON THE BASIS OF COST-CAUSATION?

A. Yes. The FCC has specifically indicated that the some telecommunications facilities cannot be allocated on the basis of cost-causation principles, because all of the facilities would be required even if they were used only to provide local service, or if they were used to only provide interstate access service. The FCC specifically stated:

> These costs pose particularly difficult problems for the separations process: The costs of such facilities cannot be allocated on the basis of cost-causation principles because all of the facilities would be required even if they were used only to provide local service or only to provide interstate access services. A significant illustration of this problem is allocating the cost of the local loop, which is needed both to provide local telephone service as well as to originate and terminal long-distance calls.[2]

Q. IF SHARED COSTS CANNOT BE ASSIGNED ON THE BASIS OF COST-CAUSATION, ON WHAT BASIS ARE THEY TO BE ASSIGNED?

A. Since there are no strict economic principles that dictate how shared costs are to be recovered, the recovery of the costs of shared facilities is really a pricing matter that is based upon someone's judgement. When it comes to the recovery of shared costs, public policy principles are applied rather than economic principles.

For example, for public policy reasons, a Commission may choose to price residential basic exchange service such that it makes a smaller percentage contribution over and above TSLRIC toward the shared and common costs of USWC, compared to other more discretionary services. However, this is no longer a matter of "subsidy." This is merely a policy decision to impose a

[2] ¶23, *FCC Access Charge Reform Order*, FCC 97-158.

relatively smaller markup above TSLRIC for residential basic exchange service than for more discretionary services. As long as a service is priced at or above its properly calculated TSLRIC, the service is not receiving a subsidy.

Q. WHAT IS THE STAND-ALONE COST?

A. The Stand-Alone Cost is the cost that would have to be incurred to provide a service if that service "stood alone", and did not share facilities with any other service. In economic theory, the Stand-Alone Cost generally determines the price "ceiling" for a service.

Q. WHY DOES THE STAND-ALONE COST REPRESENT THE PRICE CEILING?

A. Economic theory dictates that in order for a price to not provide a subsidy, it must be at or below the properly calculated Stand-Alone Cost for that service. If a service has a price that is above its Stand-Alone Cost, then that service could be providing a subsidy to one or more of the company's other services. If a service is priced above Stand-Alone Cost, but no services are receiving a subsidy (i.e. no services are priced below their properly calculated TSLRIC), the payment of rates above Stand-Alone Cost for that service could be thought of as a "subsidy" to the company's shareholders in the form of higher earnings, rather than actually subsidizing some other service. Since the price for a service must be at or below the Stand-Alone Cost to not provide a subsidy, the Stand-Alone Cost is generally considered to be the price ceiling for a service.

Q. HAS THE FCC ACKNOWLEDGED THAT THE TSLRIC IS THE PRICE FLOOR AND THE STAND-ALONE COST IS THE PRICE CEILING FOR A SERVICE?

A. Yes. These widely accepted, economic principles are discussed in the following quotation from an FCC Order:

> Economists would say that in order to give incumbent local exchange carriers the proper incentives to build multi-service facilities, where such facilities are economically rational, cost allocated to each individual service or subset of services should be less than the stand-alone cost but greater than the incremental cost. ... These are the upper and lower bounds within which costs allocated to regulated and nonregulated services should fall.[3]

Q. IF A PRICE IS SET ABOVE ITS TSLRIC FLOOR OR BELOW ITS STAND-ALONE PRICE CEILING, IS THAT INDICATIVE OF ANY PRICING PROBLEM?

A. No. The proper range for a price is between the TSLRIC price floor and the Stand-Alone price ceiling. This is the range of subsidy-free rates where prices should generally fall. If a service is priced above its TSLRIC floor, this is not indicative of a problem, since prices are generally set above the floor to provide contribution toward the shared, joint and common costs of providing services. If a service is priced below its Stand-Alone ceiling, this is not indicative of any pricing problem either, since prices are normally set below their ceiling.

Q. IF SWITCHED ACCESS, TOLL OR VERTICAL SERVICES ARE SHOWN TO BE PRICED ABOVE THEIR RESPECTIVE TSLRIC COSTS, DOES THIS DEMONSTRATE THAT THESE SERVICES PROVIDE A "SUBSIDY" TO RESIDENTIAL BASIC EXCHANGE

[3] ¶20, FCC 's Notice of Proposed Rulemaking, CC Docket No. 96-112, adopted and released May 10, 1996.

SERVICE?

2 A. No. Demonstrating that a service is priced above TSLRIC does not provide sufficient evidence
3 of that service providing a subsidy to other services. Rather, a service must be demonstrated to
4 be priced above its properly calculated Stand-Alone Cost to be demonstrated to be providing a
5 subsidy. Furthermore, even if a service is demonstrated to be priced above its properly
6 calculated Stand-Alone Cost, in order to demonstrate that the service is providing a subsidy to
7 another service, some other service must be demonstrated to be priced below its properly
8 calculated TSLRIC. If no services are found to be priced below their properly calculated
9 TSLRIC, the "subsidy" may actually be flowing elsewhere, such as to the company's
10 shareholders in the form of higher earnings, rather than as a subsidy to another service.
11

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

13 A. Yes.

Thomas M. Regan. Consultant
8625 Farmington Cemetery Road
Pleasant Plains, IL 62677

PRESENT POSITION
William Dunkel and Associates
Position: Consultant

- Prefiled testimony on behalf of the Pennsylvania *Office of Consumer* Advocate in a case involving Bell Atlantic-Pennsylvania, Docket No. R-953409 in which he addressed stimulation as a result of toll price reductions. That proceeding was settled prior to going to hearing.
- Testified on behalf of the Colorado Office of Consumer Counsel in a rate rebalancing case involving U.S. West Communications, Inc., Docket No. 96S-257T et al.

- Participated in, but did not testify in, the following proceedings:

-New Mexico Case No. 3008 (General Rate/Depreciation case of USWest)
-Arizona Docket No. T-01051B-97-0689 (Depreciation case of US West)
-Illinois Docket No. 99-0412 (EAS case involving Geneseo Telephone Company)
-Illinois Docket Nos. 98-0200/98-0537 (Consolidated) (Usage sensitive service of GTE)
-Florida Undocketed Special Project (Fair and Reasonable Rates of BellSouth, GTE, and Sprint)
-Pennsylvania Docket No. A-310125F002 (GTE North Interconnection Proceeding)
-Washington Docket UT-960369 (US West Communications, Inc. Interconnection Case)
-Utah Docket No. 97-049-08 (US West Communications, Inc. General Rate Case)
-Oklahoma Cause No. PUD 96-0000214 (Public Service of Oklahoma Depreciation Case)
-Hawaii Docket No. 7702 (GTE Hawaiian Tel General Rate Case)
-Washington Docket UT-950200 (US West Communications, Inc. General Rate Case)
-Pennsylvania Docket R-00953409 (Bell Atlantic Toll Automatic Savings Plan)
-Pennsylvania Docket R-00963550 (Bell Atlantic Rate Rebalance Proceeding)
-Iowa Docket RPU-95-11 (US West Communications, Inc. General Rate Case - Withdrawn by USWC just prior to hearings)
-Arizona Docket E-1051-93-183 (US West Communications, Inc. General Rate Case - Remand)
-Colorado Docket 95S-523T (US West Communications, Inc. CustomChoice Case - Withdrawn)
-Utah Docket 95-049-05 (US West Communications, Inc. General Rate Case)
-Iowa Docket RPU-95-10 (US West Communications, Inc. Interconnection Case)
-Hawaii Docket 94-0298 (General Telephone and Electronics (GTE) Depreciation Case)
-Indiana Cause No. 39938 (Indianapolis Power and Light Company - Depreciation Case)

Participation in the above proceedings included some or all of the following:

Developing analyses, writing draft testimony, preparing data requests, analyzing issues, analyzing price elasticity and other economic issues, writing draft testimonies, prepared data requests and responses, prepared draft questions for cross-examination, and developed various quantitative models

Member of the Economic Advisory Board at the University of Illinois-Springfield.

PREVIOUS EMPLOYMENT

Sangamon State University
Graduate Assistant

-Prepared research projects on various economic topics
-Formed theoretical and statistical models
-Analyzed results of empirical models
-Formulated policy recommendations based on results.
-Worked with students

EDUCATION

Master of Arts in Economics from Sangamon State University in Springfield, Illinois
GPA 3.97/4.0

Bachelor of Arts in Liberal Arts Economics from University of Illinois, Urbana, Illinois

Relevant Coursework:
-Mathematics and Calculus
-Statistical Analysis
-Accounting/Financial Analysis
-Economic and Statistical Modeling
-Economics in Management
-International Economics
-Environmental Economics
-Marketing

Academic Awards and Honors:
-Phi Theta Kappa Honor Fraternity
-Economics Marshall Award
-Omicron Delta Epsilon Economics Honor Society
-Who's Who at America's Colleges and Universities
-Outstanding Student in Economics Award
-Highest graduate GPA in history of Economics program

EXHIBIT
S-18
(Stipulated)

QWEST (US WEST COMMUNICATIONS)

ARIZONA CORPORATION COMMISSION

DOCKET NO. T-01051B-99-105

DIRECT TESTIMONY

OF

STEPHEN G. HILL

ON BEHALF OF

THE

ARIZONA CORPORATION COMMISSION STAFF

August 9, 2000

DIRECT TESTIMONY

OF

STEPHEN G. HILL

QWEST (US WEST COMMUNICATIONS)

DOCKET NO. T-01051B-99-105

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INTRODUCTION / SUMMARY

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Stephen G. Hill. I am self-employed as a financial consultant, and principal of Hill Associates, a consulting firm specializing in financial and economic issues in regulated industries. My business address is P. O. Box 587, 4000 Benedict Road, Hurricane, West Virginia, 25526 (e-mail: sghill@compuserve.com).

Q. BRIEFLY, WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. After graduating with a Bachelor of Science degree in Chemical Engineering from Auburn University in Auburn, Alabama, I was awarded a scholarship to attend Tulane Graduate School of Business Administration at Tulane University in New Orleans, Louisiana. There I received a Master's Degree in Business Administration. More recently, I have been awarded the professional designation "Certified Rate of Return Analyst" by the Society of Utility and Regulatory Financial Analysts. This designation is based upon education, experience and the successful completion of a comprehensive examination. A more detailed account of my educational background and occupational experience appears in Appendix A.

Q. HAVE YOU TESTIFIED BEFORE THIS OR OTHER REGULATORY COMMISSIONS?

A. Yes, I have appeared previously before this Commission. In addition, I have testified on cost of capital, corporate finance and capital market issues in over 175 regulatory proceedings before the following regulatory bodies: the West Virginia Public Service Commission, the Texas Public Utilities Commission, the Oklahoma State Corporation Commission, the Public Utilities Commission of the State of California, the Pennsylvania Public Utilities Commission, the State of Maine Public Utilities Commission, the Minnesota Public Utilities Commission, the Ohio Public Utilities Commission, the Insurance Commissioner of the State of Texas, the North Carolina Insurance

Commissioner, the Rhode Island Public Utilities Commission, the City Council of Austin, Texas, the Missouri Public Service Commission, the South Carolina Public Service Commission, the Public Utilities Commission of the State of Hawaii, the Maryland Public Service Commission, the Public Service Commission of Utah, the Illinois Commerce Commission, the Kansas Corporation Commission, the Indiana Utility Regulatory Commission, the Virginia Corporation Commission, the Montana Public Service Commission, the New Mexico Public Service Commission, the Public Service Commission of Wisconsin, the Vermont Public Service Board, the Federal Communications Commission and the Federal Energy Regulatory Commission. I have also testified before the West Virginia Air Pollution Control Commission regarding appropriate pollution control technology and its financial impact on the company under review and have been an advisor to this Commission on matters of utility finance.

Q. ON BEHALF OF WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of the Staff of the Arizona Corporation Commission (Staff).

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been requested by the Staff to present a cost of capital analysis for the Arizona local exchange operations of Qwest, formerly US WEST Communications, Inc. (USWC[1], the Company). As part of my analysis, I will recommend and testify to the overall rate of return that should be utilized in determining the revenue requirement for the Company in this proceeding. In addition, I will comment on the cost of capital testimony submitted by Company witness Peter Cummings.

Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR TESTIMONY?

A. Yes. I have prepared an Exhibit, entitled Exhibit__(SGH-1), consisting of 12 Schedules. This Exhibit was prepared by me and is correct to the best of my knowledge and belief.

[1] Qwest's local exchange operations will be referenced in this testimony as USWC-Arizona or USWC-AZ, and due to the recent name change, Qwest will be referred to as US WEST Communicaions in this testimony.

Q. PLEASE SUMMARIZE YOUR TESTIMONY AND FINDINGS CONCERNING THE RATE OF RETURN WHICH SHOULD BE ALLOWED IN ESTABLISHING A REVENUE REQUIREMENT FOR THE ARIZONA LOCAL EXCHANGE TELEPHONE OPERATIONS OF US WEST COMMUNICATIONS IN THIS PROCEEDING.

A. My testimony is organized into four sections. First, I review the current macro-economic environment in which my equity return recommendation is made and show that current economic indicators support the reasonableness of that recommendation. Second, I review the Company's requested capital structure and determine an appropriate ratemaking capital structure.

Third, I evaluate the Company's cost of equity capital using Discounted Cash Flow (DCF), Modified Earnings-Price Ratio (MEPR), Market-to-Book Ratio (MTB) and Capital Asset Pricing Model (CAPM)) analyses. It is not possible to directly analyze the equity capital cost of a local exchange telecommunications firm like USWC-Az because no firms exist which engage only in those operations. Therefore, I determine the cost of equity using proxy groups that bracket the operating risk of USWC-Az. That is, the equity capital cost rates of firms that have similar-but-lower risk as well as firms that have similar-but-higher risk than USWC-Az are analyzed, and provide an indication of the upper and lower bound of the cost of equity for a local exchange telephone company.

In the fourth section of my testimony, I discuss the shortcomings contained in Company witness Cummings' equity capital cost analysis. Mr. Cummings' analysis improperly focuses only on firms that have higher operating risk than USWC-Arizona. The Company witness' analysis uses telecommunications holding companies as well as a sample of fully-competitive firms to estimate the cost of equity. However, information relative to the level of competition experienced in Arizona (provided by the Company in response to Staff data requests) indicates that competition has made only very small inroads into the Company's local exchange operating revenues, and net profits are up strongly during the past few years. Therefore, the Company's own operating data confirms that USWC-Az remains a near-monopoly provider of local exchange service—a relatively lower-risk enterprise. Therefore, Mr. Cummings' exclusive focus on fully-competitive

firms produces an equity cost estimate which overstates that appropriate for the Company's local exchange operations in Arizona.

I have estimated the equity capital cost of local exchange telephone operations of similar risk to US WEST Communications to be in the range of 11.0% to 12.5%. Within that range, a reasonable point estimate of the cost of equity capital for the Company is at the mid-point of that range, or 11.75%. Utilizing an 11.75% equity cost rate with the cost of debt and capital structure requested by the Company produces an overall cost of capital range for US WEST Communications of 9.55% (see Exhibit_(SGH-1), Schedule 12). I recommend that the Commission rely on that overall return for the purpose of setting rates for USWC-Arizona in this proceeding.

Q. WHY SHOULD THE COST OF CAPITAL SERVE AS A BASIS FOR THE PROPER ALLOWED RATE OF RETURN FOR A REGULATED FIRM?

A. The Supreme Court of the United States has established, as a guide to assessing an appropriate level of profitability for regulated operations, that investors in such firms are to be given an opportunity to earn returns that are sufficient to attract capital and are comparable to returns investors would expect in the unregulated sector for assuming the same degree of risk. The Bluefield and Hope cases provide the seminal decisions [Bluefield Water Works v. PSC, 262 US 679 (1923); FPC v. Hope Natural Gas Company, 320 US 591 (1944)]. These criteria were restated in the Permian Basin Area Rate Cases, 390 US 747 (1968). However, the Court also makes quite clear in Hope that regulation does not guarantee profitability and, in Permian Basin, that, while investor interests (profitability) are certainly pertinent to setting adequate rates, those interests do not exhaust the relevant considerations.

As a starting point in the rate-setting process, then, the cost of capital of a regulated firm represents the return investors could expect from other investments, while assuming no more and no less risk. Since financial theory holds that investors will not provide capital for a particular investment unless that investment is expected to yield their opportunity cost

of capital, the correspondence of the cost of capital with the Court's guidelines for appropriate earnings is clear.

I. ECONOMIC ENVIRONMENT

Q. WHY IS IT IMPORTANT TO REVIEW THE ECONOMIC ENVIRONMENT IN THE PROCESS OF DETERMINING AN EQUITY COST ESTIMATE?

A. The cost of equity capital is an expectational, or *ex ante*, concept. In seeking to estimate the cost of equity capital of a firm, it is necessary to gauge investor expectations with regard to the relative risk and return of that firm, as well as that for the particular risk-class of investments in which that firm resides. Because this exercise is, necessarily, based on understanding and accurately assessing investor expectations, a review of the larger economic environment within which the investor makes his or her decision is most important. Investor expectations regarding the strength of the U.S. economy, the direction of interest rates and the level of inflation (factors that are determinative of capital costs) are key building blocks in the investment decision. They should be reviewed by the analyst and the regulatory body in order to assess accurately investors' required return—the cost of equity capital.

Q. IN LIGHT OF THE CURRENT FINANCIAL AND ECONOMIC ENVIRONMENT IN THE U.S., WHY DO YOU BELIEVE AN 11.75% RETURN ON EQUITY CAPITAL IS REASONABLE FOR A LOCAL EXCHANGE TELEPHONE COMPANY IN TODAY'S CAPITAL MARKET?

A. Although there was a strong upward movement in interest rate levels during 1999 and the first half of 2000, the overall level of fixed-income capital costs continues to remain relatively modest by historical standards. Also, there are examples in the marketplace for equities that indicate that investor return requirements continue to remain relatively low.

For example, recent investor service reports regarding the utility industry indicate that investment return expectations in that industry are relatively modest. As this

Commission is well aware, the energy utility is changing dramatically as restructuring occurs in both the electric and gas businesses. Therefore, while carrying less risk than telecommunications companies generally, gas utilities face many of the same kinds of competitive (i.e., bypass) risks faced in the local exchange telephone industry, and, thus, provide an indicator of the lower end of investors' return expectations for local exchange telephone companies.

A recent A.G. Edwards report on the gas utility industry[2] indicates that market-based return expectations for gas utility stocks are well below historical earned returns. That investor service publication reports that, for a sample of 19 large and small gas distributors, the median total return expectation (dividend yield plus expected growth—a DCF-type calculation) is approximately 9.5%. That total equity return expectation is far below the lower end of the range of equity returns I recommend in this proceeding for USWC-Arizona—11.0%.

A.G. Edwards also reviews the estimated total return for "integrated" gas utilities, and energy merchant companies. Those firms, unlike gas distribution operations (and similar to telephone companies), have significant non-utility operations and, as a result, have a higher overall investment risk. A.G. Edward's median market return expectation for all the gas industry companies it reviews is 10.1%. Therefore, even for gas operations that engage in significant unregulated operations (exploration, production, gas marketing), investors' equity return expectations, as exhibited by that recent A.G. Edwards publication, are below the lower end of the range I recommend for USWC-Arizona in this proceeding. Those data confirm that my 11.75% equity return recommendation for telecommunications companies is conservative.

Another indication of the reason investors are willing to buy and hold stocks that offer relatively low returns is shown in Exhibit__(SGH-1), Schedule 1, page 1, which depicts Moody's A-rated utility bond yields from 1984 through May, 2000. Page 1 of Schedule 1 shows that interest rates and capital costs, even with the recent yield increases, remain low relative to the interest rate levels that existed in the mid-1980s. Also, page 2 of

[2] A.G. Edwards, "Gas Utilities Quarterly Review," March 31, 2000.

Schedule 1 (Exhibit__(SGH-1)), which presents the year-average Moody's A-rated bond yields for each year over the past 30 years (1968-1999), shows that the last time debt cost rates were as low as they were during 1998 was roughly thirty years ago. In 1999, A-rated bond yields were considerably higher than the average yield established in 1998 (approximately 7.6% versus 7% in 1998) but that level is still similar to average bond yield levels last seen in the U.S. in the late 1960s and early 1970s (prior to the 1974 oil embargo). Even the most recent average A-rated utility bond yield, 8.2%[3], falls in the lower range of interest rates that have existed over the past 30 years.

The above data indicate that capital costs, even with the recent credit tightening by the Federal Reserve, remain at relatively low levels and generally support the efficacy of my range of equity capital costs. However, it is important to note here that equity capital cost rates and bond yields do not move in lock-step fashion over time. In fact, the variability of that return differential is a fundamental reason why risk premium type analyses—which attempt to quantify the additional return over bond yields required by equity investors—are not reliable as primary indicators of equity capital cost. Therefore, it is necessary to perform an independent cost of equity capital analysis, rather than to simply "index" the cost of capital to current interest rates.

Q. PLEASE BRIEFLY DESCRIBE THE INTEREST RATE CHANGES THAT HAVE OCCURRED IN THE U.S. ECONOMY OVER THE PAST FEW YEARS AND HOW THEY IMPACT CAPITAL COST RATE EXPECTATIONS FOR THE FUTURE.

A. The interest rate trough that existed in 1986 and early 1987, mentioned above, spurred increased economic activity in the U.S. The rate of growth in the U.S. Gross Domestic Product (GDP) increased rapidly by the end of 1987 and showed signs of continuing to gain strength. That increased economic activity, in turn, led to increased inflation expectations (a rapid rate of economic growth can create shortages in labor and materials, driving up the price of those factors of production which ultimately results in higher prices

[3] Value Line *Selection & Opinion*, most recent six weekly editions (4/28/00-6/2/00, inclusive), A-rated utility bond yield averages.

in all sectors of the economy). That expectation of increased inflation caused the Fed to act aggressively to slow down what was widely believed to be an overheating economy. The very sharp interest rate rise that followed in late 1987 and 1988, shown on Exhibit__(SGH-1), page 1 of Schedule 1, succeeded in damping down the economy, reducing inflationary pressures, and allowing interest rates to fall again.

Since that time, the "cat and mouse" game between the Fed and nascent inflation has continued to be a primary influence in the U.S. macro-economy and the level of interest rates. Overall, as inflation has remained calm, interest rates have trended downward, but that general downward direction has been interrupted when investors (and/or the Fed) believed that falling interest rates would spur rapid economic growth. Rapid economic growth has, historically, created unwanted inflation. Investors therefore, anticipating that higher inflation and interest rates might be the result of rapid economic expansion, have reacted to positive economic news (e.g., increasing GDP growth rates, lower unemployment) or negative inflation news (e.g., increasing commodity prices, factory capacity or labor shortages) by bidding down debt prices and driving up interest rates. That is precisely the economic situation that fueled the more recent interest rate peaks from 1994 through the 1999/2000 period (see Exhibit__(SGH-1), Schedule 1, page 1).

As I noted previously, single-A rated utility debt yielded about 7.6%, on average, in 1999, while, more recently, equivalently-rated debt has been priced to yield 8.2%. That cost rate increase is due, primarily, to investors' concerns regarding the continued strength of the U.S. economic expansion (now the longest peacetime expansion U.S. in history) and the potential for increased inflation caused by that rapid level of growth. As Value Line noted in its most recent Quarterly Review regarding economic growth, inflation and the interest rate environment, the current expectation is that the Federal Reserve's credit tightening will, in the latter half of 2000 begin to slow down the economy. Moreover, Value Line predicts that while interest rate increases will be volatile for a time, they will continue in the future at relatively moderate levels preserving a favorable capital cost environment:

"**Economic Growth**: As noted, growth surged late in 1999 and in the early part of this year. Moreover, we look for just a modest reduction in activity this quarter, with GDP rising by at least 4.0%-4.5% [chart omitted]. A further slowing in the pace of activity is then likely in the third and fourth quarters, as past and prospective tightening moves by the Fed start to finally clip the sails of the housing, retail, labor, and industrial markets [chart omitted]. Continued moderation in growth, to the 3.0%-3.3% level, would then seem likely in 2001. Thereafter, assuming no major miscalculations by the Fed, or exogenous shocks on the U.S. or international stage, GDP growth would likely hold near that level over the next 3 to 5 years. We caution, however, that deviations from such a growth path—indeed, even a recession—are possible within this several-year projection period.

Inflation: On balance, the rate of price inflation remains modest. For example, producer prices fell in the latest month and consumer prices were unchanged, reflecting a brief, early spring decline in oil prices. More recently, however, oil quotations have rebounded to around the $30-a-barrel level. That uptick, coupled with a rise in both wage and benefits costs, is spreading fear through the financial markets for its potential implications on the interest-rate front. Our sense, though, is that barring a further surge in oil prices or an unexpected flareup elsewhere on the pricing spectrum, producer (or wholesale) prices will probably average a still-manageable 3% this year, while the less volatile Consumer Price Index should hold in the 2.5% area. Slower growth should then allow these inflation gauges to moderate in 2001 [chart omitted].

Interest Rates: Currently, *in contrast to the expected* gradual moderation in growth and inflation over the course of the next few quarters, we see no such decline, or even stability, on the interest rate front. Indeed, it appears likely that short-term rates may head higher before they go lower, with one or more rate increases likely before the Fed is finished with its monetary tightening initiatives later this year. The right side of all this is that once the lead bank has accomplished its objective (i.e., to reduce growth and keep price inflation at bay), long-term rates, which largely reflect inflationary expectations, should decline. That, in turn would help to set the stage for further growth out to the middle years of this decade [chart omitted]" (The Value Line Investment Survey, *Selection & Opinion*, June 2, 2000, pp. 4879, 4880)

In that most recent Quarterly Economic Review, Value Line projects long-term Treasury bond rates will average 6.2% through 2000 and 5.8%-5.9% each year through

2004. The recent six-week average 30-year T-bond yield is 5.92% (data from Value Line, *Selection & Opinion*, six weekly editions, April 28, through June 2000), with the yield falling to 5.8% in the most recent week. Therefore, the indicated expectation with regard to interest rates is that they are likely to fluctuate somewhat during the remainder of this year, but will remain within a relatively narrow range over the next few years. These data indicate that the current environment of relatively low capital costs is likely to continue into the future.

II. CAPITAL STRUCTURE

Q. WITH WHAT CAPITAL STRUCTURE HAS US WEST COMMUNICATIONS REQUESTED RATES BE SET IN THIS PROCEEDING?

A. As discussed in Company witness Cummings' Supplemental Direct Testimony, page 2, US WEST Communications is basing its rate request on the book value capital structure of USWC as reported to the Federal Communications Commission and as allocated to the Company's Arizona operations. That is, the dollar amounts of the capital used to establish the weights used in the Company's requested weighted cost of capital are based on the values that appear on its balance sheet as reported to the FCC. Some portion of those amounts is then allocated to the Company's Arizona operations to produce the capital amounts shown in Mr. Cummings Exhibit PCC-02. The Company's allocated capital structure consists of 52.4% common equity, and 47.6% total debt (long-term and short-term debt). It is important to note that this capital structure is more leveraged (i.e., contains more debt and less equity) that the capital structure originally filed[4]. Because of that fact, the Company's updated capital structure request would more cost-effectively finance its Arizona operations.

[4] The Company originally requested a ratemaking capital structure consisting of 58.76% equity and 41.24% debt.

Q. IS THE CAPITAL STRUCTURE ON WHICH MR. CUMMINGS RELIES IN THIS PROCEEDING THE CAPITAL STRUCTURE THAT US WEST PRESENTS TO INVESTORS?

A. No, it is not. Exhibit_(SGH-1), Schedule 2, page 1 contains the capital structures that US WEST presents to investors and the investment community in its Investor Handbook and its Securities and Exchange Commission reports. In its publications targeted to investors US WEST presents "consolidated" (total operations including directory publishing, wireless, enhanced phone services, etc.) and "telephone operations only" capital structures which are quite different than the allocated capital structure on which the Company relies for ratemaking purposes in this proceeding.

The upper half of page 1 of Schedule 2 shows US WEST's consolidated capital structure over the past five years, as reported in the Company's 1998 Investor Handbook and its January 26, 2000 S.E.C. Form 8-K. Those data indicate that, absent consideration of short-term debt, US WEST's consolidated equity ratio averaged between 39% and 46% from 1995 through 1997. If short-term debt were included in the calculation of those capital structures the equity ratios would be lower. More recently, at year-end 1998 and 1999, US WEST's consolidated equity ratio fell dramatically, comprising only 8% to 10% of capital (again, excluding consideration of short-term debt). That recently published equity ratio is only a fraction of that requested by the Company for ratesetting purposes in this proceeding.

The lower half of page 1 of Schedule 2 depicts US WEST's "telephone operations only" capital structure as reported to investors over the past five years. That presentation of the Company's capitalization indicates an equity ratio ranging from approximately 37% to 44% of total equity over the 1995-1999 period. Over that five-year period the average year-end equity ratio for the "telephone operations only," according to the Company's own published data, averaged approximately 40% of total capital. It is important to note, these data are taken from a handbook designed especially for investors and published by US WEST.

Therefore, in presenting its balance sheet and capitalization to the investment community, the Company indicates a substantially different capitalization than that reported to the FCC and utilized by Mr. Cummings to determine the overall cost of capital. The capital structures presented to investors indicate a more highly leveraged company (a firm which is capitalized with more debt and less equity) than the capital structure requested by the Company in this proceeding. All else equal, a firm financed with less debt and more equity will impart lower financial risk to the equity holder and investors will require a lower return for due to that additional cushion. This is a widely-accepted tenet of modern corporate finance.

Q. DO THE OTHER TELECOMMUNICATIONS HOLDING COMPANIES EXHIBIT SIMILAR CAPITAL STRUCTURES TO THAT PUBLISHED BY US WEST's TELEPHONE OPERATIONS?

A. Yes. Page 2 of Schedule 2 shows the most recent available capital structure for the telecommunications holding companies studied in this testimony and published in Value Line (*Ratings & Reports*, April 7, 2000). Absent consideration of US WEST's consolidated capital structure (which contains a very low equity ratio), the telecommunications holding companies are currently capitalized with approximately 44% equity and 56% fixed-income capital (preferred stock, long- and short-term debt). Those recent-average equity and fixed-income percentages for the telecommunications holding companies indicate that those firms (which include riskier, competitive operations) are capitalized with less equity and more debt, on average, than the Company requests in this proceeding.

It is important to note that the equity ratio implicit in the capital structure requested by the Company in this proceeding falls within the range exhibited by the telecommunications holding companies. Absent consideration of US WEST's capitalization, the equity percentage of the capital structures exhibited by the larger telecommunications holding companies currently ranges from approximately 32% (GTE

Corp.) to 55% (SBC Corp.). The Company's requested ratemaking capital structure, which contains 52.4% common equity, falls near the top end of that range.

Q. HOW DOES THE COMPANY'S REQUESTED CAPITAL STRUCTURE COMPARE TO THE CURRENT CAPITALIZATION OF GAS AND ELECTRIC UTILITY OPERATIONS?

A. The June 2000 edition of CA Turner's Utility Reports indicates that the current average equity ratio in the electric industry (81 electric and combination electric and gas utilities) is 39% of total capital. For the gas distribution and integrated natural gas industry, that same publication indicates that those firms are currently capitalized with an equity ratio of 43%. The Company's requested equity ratio, 52.4%, is well above the equity ratios which exist, on average, in the utility industry.

Q. WHAT IS YOUR RECOMMENDATION, THEN, WITH REGARD TO THE CAPITAL STRUCTURE AND EMBEDDED COST RATES THAT SHOULD BE USED IN DETERMINING THE OVERALL COST OF CAPITAL IN THIS PROCEEDING?

A. Schedule 2, page 3 shows that, for purposes of determining an overall rate of return in this proceeding I have elected to rely on the capital structure and embedded cost rates requested by the Company in this proceeding. That capital structure consists of 52.43% equity and 47.57% debt. As I noted above, that ratemaking capital structure contains an equity ratio which is above that employed, on average, by telecommunications holding companies and utility operations and falls at the upper end of the range of capital structures exhibited by those firms. Therefore, that capital structure will impart less financial risk, on average, than that employed by either the telecommunications holding companies or utilities. In that way, the capital structure that I recommend recognizes the potential for increased operating risk in local exchange telephone operations. The embedded cost of debt used in my recommended capital structure is that requested by the Company—7.39%.

III. METHODS OF EQUITY COST EVALUATION

DISCOUNTED CASH FLOW MODEL

Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) MODEL YOU USED TO ESTIMATE THE COST RATE OF COMMON EQUITY CAPITAL FOR THE COMPANY'S LOCAL EXCHANGE TELECOMMUNICATIONS OPERATIONS.

A. The DCF model relies on the equivalence of the market price of the stock (P) with the present value of the cash flows investors expect from the stock, providing the discount rate equals the cost of capital. The total return to the investor, which equals the required return according to this theory, is the sum of the dividend yield and the expected growth rate in the dividend.

The theory is represented by the equation,

$$k = D/P + g \quad , \qquad (1)$$

where "k" is the equity capitalization rate (cost of equity, required return), "D/P" is the dividend yield (dividend divided by the stock price) and "g" is the expected sustainable growth rate.

Q. WHAT GROWTH RATE (g) DID YOU ADOPT IN DEVELOPING THE COST OF COMMON EQUITY FOR THE COMPANY?

A. The growth rate variable in the traditional DCF model is quantified theoretically as the dividend growth rate investors expect to continue into the indefinite future. The DCF model is actually derived by 1) considering the dividend a growing perpetuity, that is, a payment to the stockholder which grows at a constant rate indefinitely, and 2) calculating the present value (the current stock price) of that perpetuity. The model also assumes that the company whose equity cost is to be measured exists in a steady state environment, i.e., the payout ratio and the expected return are constant and the earnings, dividends, book value and stock

price all grow at the same rate. As with all mathematical models of real-world phenomena, the DCF theory does not exactly "track" reality. Payout ratios and expected equity returns do change over time. Therefore, in order to properly apply the DCF model to any real-world situation and, in this case, to find the long-term sustainable growth rate called for in the DCF theory, it is essential to understand the determinants of long-run expected dividend growth.

Q. CAN YOU PROVIDE AN EXAMPLE TO ILLUSTRATE THE DETERMINANTS OF LONG-RUN EXPECTED DIVIDEND GROWTH?

A. Yes, an example, which illustrates the determinants of long-run expected dividend growth, is provided in detail in Appendix B.

Q. DID YOU USE THE SUSTAINABLE GROWTH RATE APPROACH TO DEVELOP AN ESTIMATE OF THE EXPECTED GROWTH RATE FOR THE DCF MODEL?

A. Yes. The objective of this proceeding is to determine rates for USWC's local exchange operations in Arizona. One important part of that determination is an estimate of the cost of equity capital to the company. Direct market data regarding USWC-Arizona's equity capital is not available. Therefore, I have calculated both the historical and projected sustainable growth rate for a sample of telecommunications firms with sizeable local exchange operations, which was also used by Company witness Cummings in his Direct Testimony. That sample of companies is comprised of the remaining former Bell Regional Holding Companies (RHCs) and GTE. In addition, and in order to more accurately assess the equity capital cost rate of USWC-Az's local exchange operations, I have estimated the equity capital cost a sample of property/casualty insurance companies and natural gas distribution companies. To supplement the sustainable growth rate analysis, I have also analyzed published data regarding both historical and projected growth rates in earnings, dividends, and book value for all the companies under study.

Q. WHY HAVE YOU USED THIS TECHNIQUE OF ANALYZING THE MARKET DATA OF SEVERAL COMPANIES?

A. In addition to the fact that USWC-Arizona's common equity is not publicly traded, I have used the "similar sample group" approach to cost of capital analysis because such an analysis yields a more accurate determination of the cost of equity capital than does the analysis of the data of one individual company. Any form of analysis in which the result is an estimate, such as growth in the DCF model (or any other equity cost estimation model), is subject to measurement error, i.e., error induced by the measurement of a particular parameter or by variations in the estimate of the technique chosen. When the technique is applied to only one observation (e.g., estimating the DCF growth rate for a single company) the estimate is referred to, statistically, as having "zero degrees of freedom." This means, simply, that there is no way of knowing if any observed change in the growth rate estimate is due to measurement error or to an actual change in the cost of capital. The degrees of freedom can be increased and exposure to measurement error reduced by applying any given estimation technique to a sample of companies rather than one single company. Therefore, by analyzing a group of companies with similar characteristics, the estimated value for the growth rate and the resultant cost of capital is more likely to equal the "true" value for the parameters being measured for a utility of that type.

Q. WHY WERE THE REMAINING RHCs AND GTE SELECTED FOR YOUR ANALYSIS OF THE COST OF EQUITY CAPITAL OF US WEST'S ARIZONA OPERATIONS?

A. Although there are significant changes occurring in the telecommunications industry that make the RHCs and GTE more risky and their equity costs higher than local exchange telephone operations such as USWC-Arizona, I believe an equity cost analysis of those firms can offer useful information in estimating the equity capital cost of a telephone utility operation. Of course, the RHCs and GTE have stepped up diversification efforts and local exchange operations now comprise less than half of all revenues collected by those companies. That significant diversification into unregulated, competitive operations has increased the investment risk of those firms and the concomitant higher return expectation

is impounded in their stock prices and investor-expected returns. Therefore, while local exchange operations remain a profit center for those firms and, as a result, their market data provide some indication of the cost of equity of that type of firm, those companies also have invested in riskier operations which will raise the market required return above that of a local exchange telephone company. For those reasons, the market-based equity cost of the telecommunications holding companies should be considered to provide an indication of the upper end of a reasonable range of equity capital costs for USWC-Az's local exchange operations.

It is important to note also that some of the firms included in the telecommunications sample group are in the process of merging (e.g., US WEST/Qwest, Bell Atlantic/GTE) and, because of that fact, the determination of an accurate cost of equity estimate for local exchange operations, using those firms as proxies, has become more problematic. The telecommunications companies included in my equity capital cost rate analysis are: Bell Atlantic Corporation (BEL), Bell South Corporation (BLS), GTE Corp. (GTE), SBC Communications (SBC), and US WEST Communications (USW). [Note: The stock ticker symbols are referenced here because that is the manner in which the companies are identified in Exhibit_(SGH-1).]

Q. YOU INDICATED THAT YOU HAVE ALSO ANALYZED THE MARKET DATA OF A SAMPLE OF PROPERTY/CASUALTY INSURANCE COMPANIES. PLEASE EXPLAIN WHY THAT MARKET INFORMATION IS USEFUL IN INDICATING A PROPER EQUITY COST RANGE FOR A LOCAL EXCHANGE TELEPHONE OPERATION.

A. As I noted above, there is no direct market-based, or "pure-play" proxy for local exchange telephone operating companies. The telecommunications firms I have selected have the advantage of actually having some local exchange operations as part of their business mix—that fact makes them a reasonable proxy in our task of isolating the cost of equity of that type of operation. However, those companies are expanding rapidly into other, riskier endeavors and are also consolidating and merging operations. In my view, those facts

make the cost of equity result based on the market data of those firms a less robust indicator of the upper limit of the cost of equity of local exchange telecommunications operation like USWC-Arizona. For that reason, I have elected to also analyze the cost of equity of a group of property/casualty insurance companies followed by Value Line.

My inclusion of property/casualty insurance companies in my analysis in this proceeding is designed to provide a more reliable upper bound to the cost of equity range appropriate for a local exchange telephone operation. The insurance industry is highly competitive. It is a relatively simple process to change one's insurance provider, and no one firm has a franchise operation in any locale or is a provider through which other insurance must be accessed (like local exchange service).

The use of insurance firms as a determinant of the upper end of a range of equity cost, then, recognizes the potential for eventual competition (and the cost of equity which results from that situation) in the local exchange business. Moreover, in some states insurance companies are rate-regulated. While the regulation is not as detailed as is utility regulation, it is similar, and that aspect adds to the usefulness of these companies as proxies to establish the upper-end of a reasonable range of equity capital costs for local exchange operations.

In selecting a sample of insurance firms to analyze, I screened all the property and casualty and diversified insurance firms followed by Value Line. I selected companies that had a continuous financial history (i.e., currently paying a dividend, and had no dividend reductions or erratic earnings over, at least, the most recent five years) and had revenues generated by private property insurance. The data for the sample group regarding the writing of property insurance (fire, homeowners, farmowners and allied lines) were obtained from Best's Aggregates and Averages, 1998 edition[5].

The companies included in the sample group are W. R. Berkley Corp. (BKLY), Chubb Corporation (CB), Cincinnati Financial Corp. (CINF), NAC Re Corp. (NRC), Ohio Casualty Corp. (OCAS), RLI Corp. (RLI), SAFECO Corporation (SAFC), St. Paul

[5] Best's Aggregates and Averages is a widely-utilized source for current and historical data on the property/casualty insurance industry. The data presented in the 1998 edition, is the most recent available. The 1999 edition of Best's will not be published until the Fall of 2000.

Companies (SPC), Selective Insurance Group, Inc. (SIGI), Transatlantic Holdings (TRH), American Bankers Insurance Group (ABI), American International Group, Inc. (AIG), and Unitrin (UNIT).

Q. YOU INDICATED THAT YOU HAVE ALSO ANALYZED THE MARKET DATA OF A SAMPLE OF GAS DISTRIBUTION COMPANIES. PLEASE EXPLAIN WHY THAT MARKET INFORMATION IS USEFUL IN INDICATING A PROPER EQUITY COST RANGE FOR A LOCAL EXCHANGE TELEPHONE OPERATION.

A. As I noted above, the telecommunications and insurance firms studied in my analysis carry higher investment risk that a local exchange telephone operation like USWC-Az, due to their competitive operations. Therefore, an analysis of the market data of those firms will provide a cost of equity capital estimate that is greater than that appropriate for a local exchange telephone operation. In order to balance the analysis, it is necessary to also analyze a group of companies that are somewhat similar in risk to local exchange telephone operations, but have somewhat *lower* overall risk. Natural gas distribution operations fulfill that requirement. By estimating the cost of equity of all three sample groups, the cost of equity capital for a local exchange telephone utility operation can be more accurately estimated, being bracketed above by the equity capital cost of the telecommunications holding companies and insurance firms and below by the equity capital cost of gas distributors.

While gas distribution operations are generally considered to carry less investment risk than telephone operations, there are many similarities between the local exchange telephone industry and the gas distribution industry. Like the telephone industry, the gas industry underwent massive structural changes in the 1980s. Due to regulatory changes at the Federal level and pressures in the marketplace, the gas utility system in the U.S. was split into a transportation industry and a distribution industry. In broad terms, that bifurcation of the gas industry was similar to the separation of the telephone industry into long distance and local exchange operations. In addition, gas distributors have faced the "bypass" problem that telephone company representatives have, for years, touted as a

major risk to the security of their income stream. Gas distributors are bypassed due to the ability of pipelines to supply gas directly to customers, as well as the ability of customers in some portions of the U.S. to purchase gas supplies directly from producers or other marketers, or in gas-rich areas of the country, to drill their own wells. Finally, the operational risk of the marketing function (securing a reliable supply of gas for a particular customer base), which was once borne solely by the pipelines, has been shifted forward to the distributors. Gas distribution operations, then, face operational risks similar to local exchange telephone operations, and market-based indicators of capital costs for gas distributors are useful in identifying the lower end of the range of appropriate capital costs for local exchange telephone operations.

In selecting a sample of gas distribution firms to analyze, I screened all the gas distribution firms followed by Value Line. I selected companies from that group that had a continuous financial history, had at least 70% of revenues generated by gas distribution operations, and had investment-grade bond ratings of "A" or below. In addition, I eliminated companies that were in the process of merging or being acquired and had realized a stock price shift due to that activity. The data for the sample group regarding the percent of revenues generated by gas distribution operations were obtained from CA Turner Utility Reports, June 2000 edition.

The companies included in the similar-risk sample group in this proceeding are AGL Resources (ATG), Atmos Energy Corporation (ATO), Cascade Natural Gas Corporation (CGC), New Jersey Resources (NJR), Northwest Natural Gas (NWNG), Piedmont Natural Gas Company (PNY), and South Jersey Industries (SJI).

Q. REGARDING YOUR USE OF GAS DISTRIBUTORS AS A LOWER-RISK PROXY FOR LOCAL EXCHANGE TELECOMMUNICATIONS, HAS THE COMPANY PROVIDED ANY EVIDENCE IN THIS PROCEEDING THAT SUPPORTS YOUR USE OF THOSE COMPANIES AS A PROXY FOR LOCAL EXCHANGE TELEPHONE OPERATIONS?

A. Yes, the Company has provided evidence in response to Staff Data Requests that indicates that the use of a gas distribution equity cost estimate as a lower bound of the cost of equity appropriate for USWC-AZ is a reasonable procedure. When asked in Staff-SGH-01-09 to, "... provide any and all data available to quantify the dollar impact of competition on the revenue stream of the Company's Arizona telephone operations, each year, since 1993," the Company provided a confidential response which showed which indicated a very small impact on its revenues. Based on the most recent annualized data, the Company's response to SGH-01-09 indicates that competition in USWC-Arizona's local exchange operations currently amounts to a cumulative impact of less than 1% of the Company's 1999 local exchange revenues. Therefore, while there appears to be some impact to the Company's revenue stream from competition, it is quite small in relation to total local exchange revenues.

In addition, the Company's response to SGH-01-11 shows that the revenues and net income generated for USWC-Az shows strong, unimpeded upward movement. Exhibit__(SGH-1), Schedule 3, page 1, is a graphical representation of USWC-Az's local service and total jurisdictional revenues from 1989 through 1999. Over that period, USWC-Az's local service revenues have increased very steadily, have nearly doubled and have averaged 6.4% growth, annually over the period. The Company's total jurisdictional revenues have grown a bit slower on average—5.5% annually versus 6.4% annually for the local service revenues—but in the most recent three of four years, the Company's total jurisdictional revenues have increased more rapidly. The Company's income statements reveal that the increased rate of total revenue growth has come from the recent increases in "Miscellaneous" revenues. Therefore, during a period in which competition is supposedly creating greater operating risk for USWC-Az, the Company's total revenues are increasing at an increasing rate.

Also, page 2 of Schedule 3 is a graph that shows the Company's jurisdictional net income since 1993—the time of USWC-Az's last rate case. That graph shows a very strong upward trend in net income for this Company—an increase from $40.7 Million in 1993 to $164.6 Million in 1999.

In sum, the data provided by the Company to support its claim that its operating risk has increased markedly due to the amount of competition in Arizona does fulfill that requirement. The only tangible data that the Company is able to provide indicates that any revenue impact that might have occurred from competition in Arizona is very small, indeed. Moreover, the Company's operating data (revenues and net income) show very strong upward trends during a period in which the Company implies that it is exposed to "significant competition"[6]. The data that I have reviewed, which are provided by the Company, indicate that USWC continues to operate in an environment that, while no longer fully monopolistic, certainly imparts less risk than one which is fully competitive. For that reason, it is clear that 1) the operating risk of USWC-Az is well below that of the telecommunications holding companies or any fully-competitive firm, and 2) gas distribution utility operations offer a reasonable proxy for the determination of the lower end of a reasonable range of equity capital cost for this Company.

Q. HOW HAVE YOU CALCULATED THE DCF GROWTH RATES FOR THE SAMPLE OF COMPARABLE COMPANIES?

A. Schedule 4, pages 1 through 9, shows the retention ratios, returns on equity, sustainable growth rates, book values per share and number of shares outstanding for the comparable companies for the past five years. Also included in the information presented in Schedule 4, are Value Line's projected 2000, 2001 and 2003-2005 values for equity return, retention ratio, book value growth rates and number of shares outstanding.

I review these data as well as other growth rate information published by investor services for each company in my sample group, arriving at a growth rate estimate for each individual company. Those individual growth rate estimates are then combined with their respective dividend yields for each company and the results are averaged to reach the DCF equity cost estimate for the sample group. In describing the process of growth rate estimation below, I utilize my analysis for Piedmont Natural Gas as an example of the procedure I follow for each company in the sample group.

[6] Cummings Direct Testimony, p. 9, l. 8.

In evaluating the growth rate parameters shown in Schedule 4, I first calculate the five-year average sustainable growth rate, which is the product of the earned return on equity and the ratio of earnings retained within the firm. For example, Schedule 4, page 8, shows that the five-year average sustainable growth rate for Piedmont Natural Gas (PNY) is 3.81%. However, I seldom use that simple five-year average sustainable growth value as the investor-expected sustainable growth in the DCF model. Instead, that value is used as a benchmark against which I measure the company's growth rate trends. It is reasonable to believe that growth rate trends tend to be more investor-influencing than simple historical averages. Continuing to focus on Piedmont Natural Gas, page 8 of Schedule 4 shows that PNY's sustainable growth rate began the historical period at about a 2.8% rate. However, the Value Line data indicate that over the last couple of years PNY's "b times r" growth rate increased to over 4%, before dropping back to a 3% level of growth in the most recent year (1999). Value Line projects that by the 2003-2005 period sustainable growth for this company will rise to 5.25%. These data would indicate that investors expect PNY to grow at a rate in the future above that, which has existed, on average, over the past five years.

At this point I should note that, while the projected data are given full consideration in estimating a proper growth rate because they are available to and are used by investors, they are not given sole consideration. Value Line readily acknowledges to its subscribers the subjectivity necessarily present in estimates of the future:

> "We have greater confidence in our year-ahead ranking system, which is based on proven price and earnings momentum, than in 3- to 5-year projections." (Value Line Selection and Opinion, June 7, 1991, p. 854).

Another factor to consider is that PNY's book value growth is expected to remain stable at a 6.5% level, after increasing at that same rate, historically. However, that company's dividend growth rate, which was 6% historically, is expected to decline to 4.5% in the future. As shown on Schedule 5, page 2, Value Line projects PNY's dividend growth rate to be below the sustainable growth rate projections. That information would tend to moderate investor expectations regarding increased growth in the future. Projected

earnings growth rate data available from Value Line indicates that investors can expect a slightly higher growth rate in the future (7%) than has existed over the past five years (6%). However, an investor advisory service (Multex.com) that polls institutional analysts for growth earnings rate projections projects lower earnings growth rate for PNY—5.57%—over the next five years.

PNY's projected sustainable growth, as well as institutional analysts' and Value Line's projected earnings growth indicates that investors can expect higher growth than has occurred, on average, in the past. Those projections are moderated somewhat by an expectation of lower dividend growth. A long-term sustainable growth rate of 5.25% is a reasonable expectation for PNY.

Q. DOES THE TYPE OF GROWTH RATE ESTIMATION PROCESS YOU HAVE JUST DESCRIBED PRODUCE THE FINAL DCF GROWTH RATE YOU USE TO ESTIMATE THE COST OF EQUITY CAPITAL?

A. No. An investor's sustainable growth rate analysis does not end upon the determination of an internal growth rate from earnings retention. Investor expectations regarding growth from external sources (sales of stock) must also be considered and examined.

For PNY, page 8 of Schedule 4 shows that the number of outstanding shares increased at a 2.07% rate over the most recent five-year period. Value Line expects the number of shares outstanding to increase more slowly through the 2003-2005 period, bringing the share growth rate down to a 1.06% rate by that time. An expectation of share growth of 1.5% is reasonable for this company.

Because a goal of regulation is to allow a utility to recover no more than its cost of capital, it is also reasonable to assume that investors would expect the market price/book value ratio to have a tendency toward unity. However, the price/book ratio is unlikely to reach 1.0 overnight and, on average, utilities will continue to issue stock at prices above book value. I believe that a reasonable estimate of investors' expectations for utility price/book ratios is that it will range between current levels and 1.0. I have used the average as an estimate of investors' expectations for the future. At the time of this analysis

(June 2000), PNY's market price is 172% of its year-end 2000 book value (M/B = 1.72). The result of combining expected internal (b x r = 5.25%) and external growth rates (1.5%) yields an investor-expected long-term growth rate of 5.79% for PNY (see Exhibit__(SGH-1), Schedule 5, page 5 of 6). [I have included the details of my growth rate analyses for PNY as an example of the methodology I use in determining the DCF growth rate for each company in the industry sample. I have also included, in Appendix C, a similar discussion of the growth rate analysis of each of the companies under study. Schedule 5, pages 1, 3 and 5, show the internal, external and resultant overall growth rates for all the companies included in the similar-risk sample group.]

Q. PLEASE DESCRIBE YOUR COMPARISON OF YOUR DCF GROWTH RATE ESTIMATES WITH OTHER, PUBLICLY AVAILABLE, GROWTH RATE DATA.

A. Pages 2, 4 and 6 of Schedule 5 shows the results of my DCF growth rate analysis for the telecommunications, insurance and gas distribution companies under study, respectively, as well as 1) 5-year historic and projected earnings, dividends and book value growth rates from Value Line, 2) earnings growth rate projections from institutional analysts, 3) the averages of those data, and 4) the 5-year compound growth rates for earnings, dividends and book value for each company under study.

The average sustainable growth rate estimate for the telecommunications companies determined in my growth rate analysis is 10.12%. This figure is closely approximates Value Line's projected average growth rate in earnings, dividends and book value for those same companies (10.13%). My average DCF growth rate estimate for the telcos (10.12%) is slightly below the average projected Analyst's earnings growth rate for those companies (10.96%) but well above Value Line's projected dividend growth for the telcos (2.30%). Also, the growth rate average used in my analysis is much higher than either historical growth rate series shown in Schedule 5, page 2, which indicates that my analysis in not based merely on historical data, but takes into account the RHC's increased future growth expectations. In addition, those data indicate that investors expect higher growth from their telephone company investments that they have achieved in the past.

My average sustainable growth rate estimate for the insurance company sample group is 9.33%, as shown on page 4 of Schedule 5. This figure is exceeds Value Line's projected average growth rate in earnings, dividends and book value for those same companies (7.53%). My average DCF growth rate estimate for the insurance companies (9.33%) is below the average projected Analyst's earnings growth rate for those companies (10.84%) but more than 150 basis points above Value Line's projected dividend growth (7.80%). Also, the growth rate average used in my analysis is somewhat below Value Line's historic average earnings, dividends and book value growth, but higher than the compound growth rate averages of those same parameters.

As shown on page 6 of Schedule 5, the average sustainable growth rate estimate for all the gas distribution companies included in my analysis is 5.17%. This figure is higher than Value Line's projected average growth rate in earnings, dividends and book value for those same companies (4.79%) and is well above the five-year historical average earnings, dividend and book value growth rate reported by Value Line for those companies (3.52%). My growth rate estimate for the companies under review is slightly lower than Analyst's earnings growth projection for those companies, 5.55%. The growth rate projections published by investor services indicate that investors expect increased growth in the future from these companies. Those data also confirm the reasonableness of my growth rate estimate for the sample of gas utilities.

Q. DOES THIS CONCLUDE THE GROWTH RATE PORTION OF YOUR DCF ANALYSIS?

A. Yes, it does.

Q. HOW HAVE YOU CALCULATED THE DIVIDEND YIELDS?

A. I have estimated the next quarterly dividend payment of each firm analyzed and annualized them for use in determining the dividend yield. If the quarterly dividend of any company were expected to be raised in the next quarter following the analysis (i.e., the second or third quarter of 2000), I increased the current quarterly dividend by (1+g). Because most of

the companies had either recently raised dividends or were not expected to increase dividends at all in 2000, only two companies required an adjustment of the dividend: Bell Atlantic (BEL), and SAFECO Corporation (SAFC).

The next quarter annualized dividends were divided by a recent six-week daily closing average stock price to obtain the DCF dividend yields. I use the most recent six-week period to determine an average stock price in a DCF cost of equity determination because I believe that period of time is long enough to avoid daily fluctuations and recent enough so that the stock price captured during the study period is representative of current investor expectations. Schedule 6 contains the market prices, annualized dividends and dividend yields of the gas companies under study. Schedule 6 indicates that the average dividend yields for the sample group of telecommunications, insurance and gas distribution companies are 2.59%, 3.15% and 5.69%, respectively.

Q. IN DERIVING THE DIVIDEND YIELDS PRESENTED IN YOUR SCHEDULE 6, DID YOU ADJUST THE DIVIDEND YIELD TO ACCOUNT FOR QUARTERLY COMPOUNDING OF THE DIVIDEND?

A. No. Such an adjustment results from an improper interpretation of the theory on which the DCF model is based and serves only to inflate a DCF-determined equity capital cost estimate. The DCF model may be derived under two alternative mathematical assumptions: discrete compounding and continuous compounding. Under the assumption of continuous compounding, the dividend is paid continuously and the DCF model takes on the following exponential form[7]:

$$P_0 = \int_0^{\infty} D_t e^{-kt}\, dt. \qquad (2)$$

Carrying out the integration indicated above, the resulting DCF model may be written as:

[7]Gordon, M.J., The Investment, Financing, and Valuation of the Corporation, R.D. Irwin, Inc., Homewood, Ill., 1962, p.45.

$$k = D_0/P_0 + g. \qquad (3)$$

The dividend variable is defined as "D_t = dividend per share paid by the corporation *during* t" and the price variable is defined as "P_t = the price of a corporation's share of stock *at the end* of period t" (Gordon, p. 44, emphasis added). Therefore, under the continuous compounding assumption, the resultant DCF model indicates that the cost of equity capital, "k", equals the dividend paid during the preceding period divided by the current stock price, plus expected growth. For example, if the dividend were paid continuously and the proper "period" was one year, the dividend yield portion of the DCF model would be determined by dividing the current stock price into the dividend yield paid out during the immediately preceding year. In other words, it would be last year's dividend divided by the current stock price.

In actuality, dividends are not paid continuously but in a discrete, usually quarterly, fashion. When the DCF is derived under these assumptions, the result is:

$$k = D_1/P_0 + g. \qquad (4)$$

Some analysts automatically (and mistakenly) assume that the relevant "period" for the above DCF model is one year and proceed to "adjust" the quarterly dividend to account for one year's growth. Dr. Gordon, in his own testimony before Federal regulators has argued against such treatment:

> "D_1 is the forecast dividend for the coming year if dividends are paid annually. Common practice, however, is to pay dividends quarterly, in which case D_t in [the following equation], the fundamental expression for share price, is a quarterly dividend.
>
> $$P_0 = \frac{D_1}{(1+k)} + \cdots + \frac{D_t}{(1+k)^t} + \cdots + \frac{D_\infty}{(1+k)^\infty}$$
>
> Because it is customary and convenient to think in terms of annual and not quarterly figures for rate of return and growth statistics, annualized figures will be used here. Annualized

> figures are simply four times quarterly figures. ...Hence, in arriving at the cost of equity capital, the correct figure for the dividend yield term in Eq.[4] is the annualized value of the forecast dividend for the coming quarter divided by the current price." (Testimony of M.J. Gordon, F.C.C. Docket No. 79-63, pp. 63–64)

Additionally, as Dr. Gordon noted in his text, The Cost of Capital to a Public Utility (Ibid., p. 81),

> "[S]ince dividends are paid quarterly, the relevant difference [between D_0 and D_1] is in the quarterly dividend."

Therefore, the DCF model is a quarterly model not an annual model because the dividends are paid quarterly rather than annually. The proper dividend yield to use in the DCF model is based on the expected next quarter dividend, annualized, as I have done and as Professor Gordon has done in his equity capital cost testimony before Federal regulators. The DCF model, then, implicitly recognizes the quarterly payment of dividends and does not require any "adjustment" to account for one year's expected growth.

Q. DOES USWC WITNESS CUMMINGS USE QUARTERLY COMPOUNDING IN HIS DCF COST OF EQUITY ESTIMATES IN THIS PROCEEDING?

A. Yes, and his DCF estimates are overstated as a results of his use of quarterly compounding. Mr. Cummings' Exhibits PCC-03 and PCC-04 attached to his Supplemental Direct Testimony in this proceeding indicates that dividend compounding increased his equity cost estimate for US WEST by about 15 to 20 basis points.

Q. WHAT IS YOUR COST OF EQUITY CAPITAL ESTIMATE FOR THE SAMPLE GROUP OF TELECOMMUNICATIONS FIRMS AND GAS DISTRIBUTION UTILITIES, USING THE DCF MODEL?

A. Schedule 6, pages 1 through 3 shows that the average DCF cost of equity capital for the group of diversified telecommunications firms is 12.71%, and 12.48% for the

property/casualty insurance firms, while the DCF result for the gas distribution utility companies studied is 10.86%.

CAPITAL ASSET PRICING MODEL

Q. PLEASE DESCRIBE THE CAPITAL ASSET PRICING MODEL (CAPM) YOU USED TO ESTIMATE THE COST RATE OF EQUITY CAPITAL FOR US WEST COMMUNICATIONS.

A. The CAPM states that the expected rate of return on a security is determined by a risk-free rate of return plus a risk premium which is proportional to the non-diversifiable (systematic) risk of a security. Systematic risk refers to the risk associated with movements in the macro-economy and, thus, cannot be eliminated through diversification by holding a portfolio of securities. The beta coefficient (β) is a statistical measure which is an attempt to quantify the non-diversifiable risk of the return on a particular security against the returns inherent in general stock market fluctuations. The formula is expressed as follows:

$$k = r_f + \beta(r_m - r_f), \qquad (5)$$

where "k" is the cost of equity capital of an individual security, "r_f" is the risk-free rate of return, "β" is the beta coefficient, "r_m" is the average market return and "$r_m - r_f$" is the market risk premium. The CAPM is used in my analysis as one of several checks of the DCF cost of equity estimate. Although I believe the CAPM is generally useful in estimating the cost of equity capital, certain theoretical shortcomings of this model (when applied in cost of capital analysis) reduce its usefulness as a stand-alone analytical technique and should be made clear.

Q. CAN YOU EXPLAIN WHY THE CAPM ANALYSIS SHOULD BE APPLIED WITH CAUTION IN REACHING AN ESTIMATE OF THE COST OF EQUITY CAPITAL?

A. Yes. The reasons why the CAPM should be used in cost of capital analysis with caution (i.e., as a corroborative methodology, not as a primary determinant of the cost of capital) are detailed in Appendix D. It is important to understand that my caution with regard to the use of CAPM results in cost of equity capital analysis does not indicate that the model is not a useful description of the capital markets. Rather, it is simply the recognition that in the practical application of the CAPM to cost of capital analysis there are problems which cause the results of that analysis to be less reliable than other, more widely accepted models such as the DCF. Moreover, regulators apparently echo this view of the CAPM. According to the National Association of Regulatory Utility Commissioners' annual survey of regulation[8], the number of utility regulatory commissions in the U.S. and Canada that list the CAPM as one of the equity cost estimation methodologies considered is 11, whereas, the DCF is utilized by nearly every single regulatory body.

Q. WHAT VALUE HAVE YOU CHOSEN FOR A RISK-FREE RATE OF RETURN?

A. As the CAPM is designed, the risk-free rate is that short-term rate of return investors can realize with certainty. The nearest analog in the investment spectrum is the 13-week U. S. Treasury Bill. Although longer-term Treasury bonds have equivalent default risk to T-Bills, those longer-term government securities carry maturity risk, which the T-Bills do not have. When investors tie up their money for longer periods of time, as they do when purchasing a long-term Treasury, they must be compensated for future investment opportunities forgone as well as the potential for future changes in inflation. Investors are compensated for this increased investment risk by receiving a higher yield on T-Bonds.

In early 1996 and 1997, T-Bill rates moved upward slightly in response to investor concerns regarding the possible recurrence of higher levels of inflation. When that inflation did not occur, T-Bill rates receded in 1998. However, as I noted in my previous discussion of the macro-economy, although there is a current expectation that inflation may increase in the future, very little inflation currently exists and interest rates have increased from the

[8] Utility Regulatory Policy In The United States And Canada, Compilation 1994-1995, National Association of Regulatory Utility Commissioners, pp. 264, 520, 588.

very low interest rate levels established in 1998. Over the most recent six-week period, T-Bills have produced an average yield of 5.92% (data from Value Line *Selection & Opinion*, six most recent weekly editions—4/28/00 to 6/2/00, inclusive). In the CAPM analysis, I average T-Bill futures rates with the current 13-week T-Bill rate to arrive at a time-adjusted risk-free rate. Currently, T-Bill futures dated December 2000 are trading at a price that produces a yield of 6.17% (*Wall Street Journal*, June 8, 1999, p. C18). For purposes of analysis in this proceeding, 6.05% represents a reasonable estimate of the risk-free rate for use in a CAPM equity cost estimate [5.92% current average T-Bill yield + 6.17% T-Bill futures yield / 2 = 6.05%].

Q. DO YOU BELIEVE THE USE OF A LONG-TERM TREASURY BOND RATE IS APPROPRIATE IN THE CAPM?

A. No. The selection of a long- or short-term Treasury security as the risk free rate of return to be used in the CAPM is one of the areas of contention in applying the model in cost of capital analysis, however, I believe the use of a short-term T-Bill rate is preferable.

First, the long-term T-Bond does not represent the lowest-risk security available in the market today and, thus, cannot be considered "risk free." The reason why long-term Treasuries most often have yields higher than shorter-term U.S. Government instruments is maturity risk, an element of risk investors do not face with the purchase of T-Bills. When investors tie up their money for longer periods of time, as they do when purchasing a long-term Treasury, they must be compensated for future investment opportunities forgone as well as the potential for future changes in inflation. Investors are compensated for this increased investment risk by receiving a higher yield on T-Bonds. Thus, maturity risk causes T-Bonds to carry a level of risk that is necessarily higher than that of T-Bills, which represent a better approximation of the risk-free rate called for in the CAPM.

Second, the use of a long-term T-Bond yield as the risk-free rate violates one of the fundamental tenets of the CAPM -- its exclusive reliance on systematic risk. As I noted above, the only risk of concern to investors in the CAPM paradigm is risk that cannot be diversified away. That risk is called systematic risk. The degree of systematic risk inherent

in any stock or portfolio investment is captured (again, according to the CAPM theory) by beta. One risk that contributes to the overall systematic risk of investing is the risk of unexpected changes in the long-term inflation rate. According to the CAPM, then, that risk is captured by (i.e., is included in) beta. Therefore, if one utilizes a long-term T-Bond yield in the CAPM analysis, an interest rate measure which, as I noted above, impounds investors' return requirements for unexpected changes in the long-term inflation rate, then that risk is accounted for twice -- once with beta and once with the long-term T-Bond yield. The use of a long-term T-Bond in the CAPM improperly double-counts investors' return requirement for long-term inflation and, thus, produces overstated results.

The fact that the long-term T-Bond rate contains a level of risk and return which should not be attributed to the risk-free rate called for in the CAPM is supported in the financial literature. Brealey & Meyers in The Principles of Corporate Finance, 4th Ed. (a text cited by USWC witness Cummings) indicate that if one uses a T-Bond rate in the CAPM rather than the T-Bill rate, the former must be adjusted to remove the average maturity risk premium of T-Bonds over T-Bills:

> "The risk-free rate could be defined as a long-term Treasury bond yield. If you do this, however, you should subtract the risk premium of Treasury bonds over bills, which we gave as 1.1 percent in Table 7-1 [a replication of the Ibboston Associates data, currently that differential is 1.4%]. This gives a rough-and-ready estimate of the expected yield on short-term Treasury bills over the life of the bond: [equation omitted]. This figure could be used as an expected average future r_f [risk-free rate] in the capital asset pricing model." (Brealey & Meyers, The Principles of Corporate Finance, 4th Ed., McGraw-Hill, New York, p. 194)

Q. WHAT HAVE YOU CHOSEN AS THE MARKET RISK PREMIUM FOR THE CAPM ANALYSIS?

A. In their 1999 edition of Stocks, Bonds, Bills and Inflation, R.G. Ibbotson Associates indicates that the average market risk premium between stocks and T-Bills over the 1926–1998 time period is 9.4% (based on an arithmetic average), and 7.4% (based on a geometric average). I have used these values to estimate the market risk premium in the

CAPM analysis. The geometric mean is based on compound returns over time and the arithmetic mean is based on the average of single-period returns.

Q. CAN YOU EXPLAIN THE DIFFERENCE BETWEEN ARITHMETIC AND GEOMETRIC MEANS IN COST OF CAPITAL ANALYSIS?

A. Yes. The geometric mean is based on compound returns over time and the arithmetic mean is based on an average of single-period returns. A numerical example will simplify the explanation. Suppose, for example, in a world of no inflation, an investor purchased for $50 a security which paid no dividend. During the first year after the purchase, the price of the security rises to $100 (a gain of 100%), but during the second year, the price falls back to $50 (a decrease of 50%).

A geometric (compound) average measure of the investors' return would divide the ending value by the beginning value ($50/$50 = 1) and take the *n*th root of that quotient (where *n* is the number of periods). In this case there are two periods, so $n = 2$. Subtracting 1 from the result we find, what the investor knew intuitively, he made no money. He started out with $50, and wound up with $50. His investment had shown a return of 0% per year over the period.

Under arithmetic averaging, we find a 100% return in the first period ($50 rises to $100) and a -50% return in the second period ($100 falls to $50), for an arithmetic average return over the two periods of 25% (100%+(-50%)/2). It would be most difficult to convince our investor, with $50 in hand at the end of two years when $50 was invested at the beginning of that period, that the return over that period was 25%, according to an arithmetic average.

In addition, the arithmetic average of an historical return series assumes that the investment is bought and sold every period (without transaction costs) while the geometric average assumes that investors buy and hold their investments. While the monthly selling and re-buying of all investments could characterize the investment behavior of a portion of the market, I believe it is unreasonable to assume that sort of investment pattern is apropos for all investors. Therefore, consideration of both the arithmetic and geometric averages

provides a more rational approximation of investor expectations than consideration of only the arithmetic mean in a CAPM analysis.

Nevertheless, some rate of return practitioners (such as USWC witness Cummings) elect to rely only on an arithmetic market risk premium in a CAPM analysis, ignoring a historical geometric market risk premium which is roughly 200 basis points lower. Also, because geometric mean return data is published by the same source (i.e., Ibbotson Associates), on the same page as the arithmetic mean, investors have access to both and, it is reasonable to assume, make use of both in determining their return requirements.

Q. IS THERE SUPPORT IN THE LITERATURE OF FINANCIAL ECONOMICS FOR THE USE OF GEOMETRIC AVERAGES OF HISTORICAL RETURNS AS THE BEST REPRESENTATION OF THE MARKET RISK PREMIUM IN THE CAPM?

A. Yes.

> "**Determining the market risk premium** The market risk premium (the price of risk) is the difference between the expected rate of return on the market portfolio and the risk free rate, $E(r_m) - r_f$. We recommend using a 5 to 6 percent market risk premium for U.S. companies. This is based on the long-run geometric average risk premium for the return on the S&P 500 versus the return on long-term government bonds from 1926 to 1992 [footnote omitted]....
>
> • We use a geometric average of rates of return because arithmetic averages are biased by the measurement period. An arithmetic average estimates the rates of return by taking a simple average of the single period rates of return.... We believe that the geometric average represents a better estimate of investors' expected returns over long periods of time....
>
> Also, the arithmetic average depends on the interval chosen. For example, an average of monthly returns will be higher than an average of annual returns. The geometric average, being a single estimate for the entire time interval, is nonvariant to the choice of interval. (Copeland, T., Koller, T., Murrin, J., Valuation, Measuring and Managing the Value of Companies, 2nd Ed., Wiley & Sons, New York, 1994, pp. 260-1)

In addition, one of the financial publications on which investors and cost of capital analysts often rely, Value Line, advises its subscribers that the geometric mean provides an unbiased measure of historical growth while the arithmetic mean is biased upward:

> "The arithmetic average has an upward bias, though it is the simplest to calculate. The geometric average does not have any bias, and thus is best to use when compounding (over a number of years) is involved." (The Value Line Investment Survey, *Selection & Opinion*, May 7, 1997, pp. 6844-5)

Therefore, both the arithmetic and the geometric mean are recognized in the financial literature and in the financial media as measures of historical returns. I recognize that there is merit to the position on the use of the arithmetic mean, and I, too, use the arithmetic average market risk premiums published by Ibbotson Associates. However, I also use the geometric mean and, in so doing, I recognize that both are available to investors and both have theoretical merit. As a result, I believe my CAPM analysis presents a more balanced estimate of the cost of capital than that offered by USWC's witness Mr. Cummings, which considers only the high-end results produced by the arithmetic mean.

Q. IS THERE EVIDENCE IN THE FINANCIAL LITERATURE THAT THE HISTORICAL RISK PREMIUMS PRESENTED IN THE IBBOTSON STUDY MAY OVERSTATE INVESTOR EXPECTATIONS?

A. Yes. There is evidence published relatively recently which studies market risk premiums over a very long-term period (dating back to the early 1800s). That study shows that the risk premiums obtained from the time period studied by Ibbotson Associates (i.e., starting in the late 1920s or early 1930s) are exaggerated. Moreover, those studies show that a more "normal" risk premium between stocks and bonds ranges from 2% to 3% (Siegel, J., Stocks for the Long Run, 1994, Irwin, Chicago IL, p. 20). That evidence indicates that the Ibbotson risk premiums may be substantially overstated as examples of investors' long-term return expectations.

Q. WHAT VALUES HAVE YOU CHOSEN FOR THE BETA COEFFICIENTS IN THE CAPM ANALYSIS?

A. I have used beta coefficients published by Value Line in my analysis. Value Line reports beta coefficients for all the stocks it follows. Their beta is derived from a regression analysis between weekly percentage changes in the market price of a stock and weekly percentage changes in the New York Stock Exchange Composite Index over a period of five years. The average beta coefficients of my sample group of telecommunications holding companies, insurance and gas distribution companies are 0.81, 0.90 and 0.57, respectively.

Q. WHAT ARE THE RESULTS OF YOUR CAPITAL ASSET PRICING MODEL ANALYSIS OF THE COST OF EQUITY FOR THE TELECOMMUNICATIONS FIRMS AND THE GAS DISTRIBUTORS?

A. Exhibit_(SGH-1), Schedule 8, pages 1 through 3, shows a mid-point estimate of 12.85% for the telecommunications holding companies and 13.61% for the insurance companies. For the gas distribution sample group, the CAPM analysis produced a range of equity cost estimates from 10.28% to 11.42%, with a mid-point of 10.85%.

MODIFIED EARNINGS-PRICE RATIO (MEPR) ANALYSIS

Q. PLEASE DESCRIBE THE MANNER IN WHICH YOU USE THE EARNINGS-PRICE RATIO TO ANALYZE OF THE COST OF COMMON EQUITY CAPITAL.

A. The MEPR analysis I utilize is useful in a corroborative sense, and can be a reliable indicator of the proper range of equity costs. The earnings-price ratio, which is one portion of the MEPR analysis, is calculated simply as the expected earnings per share divided by the current average market price. Further, the earnings-price ratio, itself, is an accurate indicator of equity capital cost rates when the market price of a stock is near its book value.

When the market price of a utility stock is below its book value, the earnings-price ratio overstates the cost of equity capital. Schedule 9 contains mathematical support for this

concept. The obverse is also true, i.e., the earnings-price ratio understates the cost of equity capital when the market price of a stock is above book value.

As a result of accounting treatment of regulatory assets and retirement benefits, the telcos under study have very high market-to-book ratios which average 4.36 (excluding USW). The accounting changes that have occurred in the telecommunications industry cause the reported financial book values and equity returns to differ from the regulatory books of account on which the earnings capacity of those firms remains primarily based. That difference between financial equity ratios (S.E.C. or "FR" based on financial accounting) and regulatory equity ratios (F.C.C. or "MR" based on regulatory accounting) has the effect of exaggerating the sustainable growth of the telecommunications companies under study. This means that those companies are earning returns based on a regulatory rate base that exceeds the asset (and common equity) base which appears in their financial reports. The cash flows produced by the telecommunications companies' regulatory operations have not changed dramatically, while the book equity base against which those cash flows are measured for financial reporting purposes, has diminished considerably during the 1990s. This administrative split between the accounting value and the earnings base of the telecommunications firm reduces the reliability of a modified earnings-price ration analysis for those firms.

The insurance firms and the gas distribution utilities under study have average market-to-book ratios of 1.73 and 1.57, respectively. Therefore, the earnings-price ratio alone would understate the cost of equity for either sample group.

Q. WHAT MODIFICATIONS DO YOU MAKE TO THE EARNINGS-PRICE RATIO, AND WHY ARE THOSE MODIFICATIONS NECESSARY?

A. I do not use the earnings-price ratio alone, i.e., without modification, as an indicator of equity capital cost rates for the reasons cited above. The earnings-price ratio, alone, is an accurate indicator of the cost of equity capital when utility market prices approximate book value. However, that condition does not exist in today's market for the companies under study in this analysis. Due to the relationship among the earnings-price ratio, the market-to-

book ratio and the investor-expected return on equity, in the MEPR analysis, I modify the earnings-price ratio by averaging that parameter with an investor-expected return on equity. This equity cost estimation technique is also termed the "mid-point approach" because the equity cost estimate is the mid-point (or average) between the earnings-price ratio and the expected return on equity.

Q. PLEASE EXPLAIN THE RELATIONSHIP AMONG THE EARNINGS-PRICE RATIO, THE EXPECTED RETURN ON EQUITY AND THE MARKET-TO-BOOK RATIO.

A. When the investor-expected return on equity for a utility company exceeds the investor-required return (the cost of equity capital), the market price of the utility will exceed its book value. As explained above, when the market price exceeds book value, the earnings-price ratio understates the cost of equity capital. Therefore, when the investor-expected equity return exceeds the cost of equity capital, the earnings-price ratio will understate that cost rate.

In situations where the expected utility equity return is below what investors require for that type of investment, market prices fall below book value. Further, when market-to-book ratios are below 1.0, the earnings-price ratio overstates the cost of equity capital. Thus, the expected rate of return on equity and the earnings-price ratio tend to move in a countervailing fashion around the cost of equity capital. When market-to-book ratios are above one, the expected equity return exceeds and the earnings-price ratio understates the cost of equity capital. When market-to-book ratios are below one, the expected equity return understates and the earnings-price ratio exceeds the cost of equity capital.

These relationships represent general rather than precisely quantifiable tendencies but are very useful in corroborating other cost of capital methodologies. The Federal Energy Regulatory Commission, in its generic rate of return hearings found this technique useful and indicated that under the circumstances of market-to-book ratios exceeding unity, the cost of equity is bounded above by the expected equity return and below by the earnings-price ratio (e.g., 50 Fed Reg, 1985, p. 21822; 51 Fed Reg, 1986, pp. 361-363; 37 FERC ¶ 61,287, pp. 58-61). The mid-point of these two parameters, therefore,

produces an estimate of the cost of equity capital which, when utility market-to-book ratios are different from unity, is far more accurate than the earnings-price ratio alone.

Q. IS THE RESULT OF THE MODIFIED EARNINGS-PRICE RATIO ANALYSIS FOR THE TELCOS AFFECTED BY THE ACCOUNTING CHANGES THOSE FIRMS HAVE UNDERTAKEN OVER THE LAST FEW YEARS?

A. Yes, as I noted above, the telco accounting changes do impact the result of my MEPR analysis. One of the tenets of the modified earnings price ratio analysis is that the earnings base of the firm (i.e., the base on which the allowed returns are applied and on which the earned returns are calculated) is consistent. However, the telcos' election to discontinue regulatory accounting for their utility assets violates that tenet. Returns for the telco's regulated operations continue to be allowed on an earnings base that is a function of regulatory accounting book value. However, financial earned returns (ROEs) are calculated on an equity base that has been diminished by the write-off of utility assets[9]. Therefore, when earned returns are calculated subsequent to the change in accounting methods, those returns are measured against a much smaller equity base and, while the actual dollar return has not increased, the ROE is dramatically over prior levels.

Therefore, while I believe the modified earnings price ratio analysis remains a viable corroborative methodology that continues to be reliable for utility operations that earn and report equity returns on the same basis (e.g., gas distributors), the current dichotomy between telephone regulatory and financial reporting renders the results of a MEPR analysis less informative with regard to the cost of equity capital for those firms.

Q. WHAT ARE THE RESULTS OF YOUR MODIFIED EARNINGS-PRICE RATIO ANALYSIS OF THE COST OF EQUITY FOR THE SAMPLE GROUPS UNDER STUDY?

[9] Telecom equity has been reduced in recent years for write-offs occasioned by the discontinuance of regulatory accounting (FASB 71), the accounting treatment of employee pension benefits and, in US WEST's case, the re-acquisition of its yellow pages operation, Dex.

A. Page 1 of Schedule 10 in Exhibit_(SGH-1) shows the institutional analyst's projected 2000 per share earnings for each of the firms in the telco sample group. Recent average market prices from Schedule 6 and Value Line's projected 2000 and 2003-2005 book equity returns for each company are also shown. The average earnings-price ratio for the RHCs is 5.36% and their 2000 projected equity returns average 27.75%. For the RHC sample group, the mid-point of the earnings price ratio and the current equity return is 16.55%[10]. For these companies, Value Line projects stable ROEs for the 2003-2005 period (including USW's projected 41% ROE), and the mid-point of the projected equity return and the current price-earnings ratio is 16.48%. The MEPR results for the telecommunications holding companies are well above the DCF results previously derived.

Page 2 of Schedule 10, in an situation which is effective opposite of that faced by the telcos, indicates very low equity capital costs for the insurance companies. Just as the telco's expected accounting equity returns are exaggerated due to a very low level of equity capital on their books of account, the insurance companies currently exhibit unusually high levels of equity capital (termed "surplus" in insurance accounting), causing the earned returns of those firms to be diminished. The result of that situation is a modified earnings-price ratio result that is well below the DCF result for those companies, and probably understates the cost of equity.

Page 3 of Schedule 10 shows that the current price-earnings ratio for the gas distributor sample group is 7.31%. The distribution companies' 2000 equity return is expected by Value Line to average 11.29%. For the gas distribution sample group, then, the mid-point of the earnings-price ratio and the current expected equity return is 9.30%.

According to Value Line, the distribution companies' 2003-2005 equity return is expected to average 13.14%. For the gas distribution sample group, then, the mid-point of the current earnings-price ratio (7.31%) and that 2003-05 projected equity return is

[10] The very high ROEs for the telcos are, again, due to the discontinuance of regulatory accounting and the write-down of assets for financial reporting. If the RHCs book value had grown at a conservative 5% rate since 1990, their 1999 book value (i.e., with no write offs, and no mergers) would have approximated $14.3 or 1.57 times the $9.1/share average projected for 1999 by Value Line (absent USW's "NMF). Measuring ROE for the telcos with a book value 1.45 times higher would produce expected ROEs in 1999 of approximately 14.5% rather than 28% and a MEPR result of about 10%.

10.23%. The near-term MEPR results are below the DCF equity cost estimates for the gas distributors previously derived, but the long-term projected MEPR results tend to support the DCF cost of equity estimate for those firms.

MARKET-TO-BOOK RATIO ANALYSIS

Q. PLEASE DESCRIBE YOUR MARKET-TO-BOOK (MTB) ANALYSIS OF THE COST OF COMMON EQUITY CAPITAL FOR THE SAMPLE GROUPS.

A. This technique of analysis is a derivative of the DCF model that attempts to compensate the capital cost derived for inequalities which might exist between a firm's market price and its book value per share. Although this method of analysis is derived from the DCF model and, therefore, cannot be considered a strictly independent check of that method, the MTB analysis is useful in a corroborative sense in that it seeks to determine the cost of equity using market-determined parameters in a different format than that employed in the DCF analysis. In the DCF analysis, the available data is "smoothed" to an extent to identify investors' long-term sustainable expectations. The MTB analysis that I employ, while based on the DCF theory, relies, instead, on point-in-time data projected one year and five years into the future and, thus, offers a practical corroborative check of the traditional DCF. The MTB formula is derived as follows:

Solving for "P" from Equation (1), the standard DCF model, we have

$$P = D/(k-g). \qquad (6)$$

But the dividend (D) is equal to the earnings (E) times the earnings payout ratio, or one minus the retention ratio (b), or

$$D = E(1-b). \qquad (7)$$

Substituting Equation (7) into Equation (6), we have

$$P = \frac{E(1-b)}{k-g} \quad . \qquad (8)$$

The earnings (E) are equal to the return on equity (r) times the book value of that equity (B). Making that substitution into Equation (8), we have:

$$P = \frac{rB(1-b)}{k-g} \quad . \qquad (9)$$

Dividing both sides of Equation (9) by the book value (B) and noting from Equation (ii) in Appendix B that g = br+sv,

$$\frac{P}{B} = \frac{r(1-b)}{k-br-sv} \quad . \qquad (10)$$

Finally, solving Equation (10) for the cost of equity capital (k) yields the MTB formula:

$$k = \frac{r(1-b)}{P/B} + br + sv. \qquad (11)$$

Equation (11) indicates that the cost of equity capital equals the expected return on equity multiplied by the payout ratio, divided by the market-to-book ratio plus growth. Schedule 11 shows the results of applying Equation (11) to the defined parameters for the telcos, insurance companies and the gas distribution utilities in the comparable samples. Pages 1 and 2 of Schedule 11 apply to the telcos while pages 3 and 4 contain data related to the insurance companies and pages 5 and 6 present the analysis for the distribution companies. Pages 1, 3 and 5 of Schedule 10 utilize current (2000) parameters for the MTB analysis while pages 2, 4 and 6 of that Schedule utilize Value Line's 2003-2005 projections.

The MTB cost of equity capital for the telcos is 13.41% using data from 2000 and 11.77% using data from the 2003-2005 period. The MTB cost of equity for the sample of insurance companies is 12.59% using the current year data and 12.51% using projected

data. For the gas distributors, the MTB cost of equity estimates are 10.86% (near term projections) and 10.21% (long-term projections).

SUMMARY

Q. PLEASE SUMMARIZE THE RESULTS OF YOUR EQUITY CAPITAL COST ANALYSES FOR THE SAMPLE GROUP TELECOMMUNICATIONS HOLDING COMPANIES AND THE GAS DISTRIBUTION COMPANIES.

A. My analysis of the cost of common equity capital for the telcos, insurance and the gas utility sample group is summarized in the table below.

METHOD	TELCOS	INSURANCE	GAS DISTRIB.
DCF	12.71%	12.48%	10.86%
CAPM	12.85%	13.61%	10.85%
MEPR	16.55% / 16.48%	6.78% / 8.04%	9.30% / 10.23%
MTB	13.41% / 11.77%	12.59% / 12.51%	10.86% / 10.21%

Weighing all the evidence presented herein, my best estimate of an appropriate range of cost of equity capital for a gas distribution operation similar in risk to the companies analyzed is 10.50% to 11.00%. In the case of the gas distributors, the corroborative equity cost estimation analyses produce results that are, for the most part, similar to or lower than the DCF estimate. In such a situation, a range of 10.50% to 11.00% gives primary weight to the DCF estimate for the gas distributors and recognizes that the corroborating methodologies produce results both below and above the DCF.

As can be seen from the table above, the corroborative methodologies currently produce estimates for the telcos that are also both above and below that sample group's

DCF equity cost estimate. For reasons of consistency, the Modified Earnings Price Ratio (MEPR) results for the telcos are reported in the table above, but should be afforded little weight due to the systematic aberrations in reported book returns for those firms. The average of the remaining corroborative methodologies (MTB and CAPM) for the telcos is 12.72%, approximating the DCF result of 12.71% [average MTB result (12.59%) + average CAPM result (12.85%) ÷ 2 = 12.72%]. Therefore, a range of equity capital cost estimates around the DCF result for the telcos in indicated. Rounding the DCF result to the nearest 1/4 percentage point, 12.75%, and establishing a 50 basis point range around that equity cost estimate produces a range of equity cost estimates for the telecommunications holding companies of 12.50% to 13.00%.

For the insurance companies reviewed, the DCF result is 12.48%, below the lower end of the range of equity cost estimates for the telcos. However, the CAPM and MTB corroborative methodologies for those firms produce an equity cost indication of 13.08% [average CAPM (13.61%) + average MTB (12.55%) ÷ 2 = 13.08%]. Although the MEPR analysis for the insurance companies produces much lower equity cost estimates, I do not find those results reliable due to the overcapitalization existing in the insurance industry at the current time. Also, the other corroborative methods indicate that my DCF result for the insurance companies may be understated. Therefore, a reasonable estimate of the cost of equity for those firms would coincide with that estimated for the telecommunications holding companies—12.50% to 13.00%.

As previously noted, diversified telecommunications holding companies and the insurance companies are riskier than local exchange telephone operations. Also, gas distributors have similar but less risk than a local exchange telephone operation. Therefore, an appropriate equity return for USWC's local exchange operation in Arizona is below that derived for the telco and insurance companies but above that appropriate for a gas distribution operation. An equity cost range of 11% to 12.50% (midpoint = 11.75%) encompasses the equity capital cost estimates of both the gas distribution sample and the telcos in that it includes the top of the range of the gas distributors (11%) and the bottom of the range of equity costs for the telcos and property/casualty insurance firms (12.50%).

Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO AN APPROPRIATE OVERALL RETURN ON RATE BASE FOR US WEST COMMUNICATIONS IN THIS PROCEEDING?

A. Exhibit_(SGH-1), Schedule 12, shows that with an allowed return on equity capital of 11.75%, using the Company's requested allocated capital structure, USWC-Arizona's overall cost of capital would be 9.68%. That overall cost of capital should be considered as the primary guide to setting fair and reasonable rate of return on USWC-Az's original cost rate base. Schedule 12 also indicates that, assuming a prospective Federal and State tax rate of 40%, that overall return would afford the Company an opportunity to achieve a pre-tax interest coverage level of 3.92 times.

Q. IN YOUR OPINION, MR. HILL, WOULD IT BE APPROPRIATE TO APPLY YOUR RECOMMENDED OVERALL RETURN TO A RATE BASE DIFFERENT FROM THE COMPANY'S ORIGINAL COST RATE BASE?

A. No. The profitability of the vast majority of utilities in the U.S. are determined on the basis of applying the firm's cost of capital to its original cost rate base. Moreover, that paradigm has led to a utility industry that has provided investors appropriate returns, allowing the utilities to attract sufficient capital in order to provide for the public's utility requirements. The adequacy of returns allowed under that paradigm is evidenced by market prices which are well above book value for most utility operations, including USWC.

To the extent that the cost of capital would be applied to a rate base which exceeds (understates) the regulated firm's original cost rate base, the resulting dollar return would exceed (understate) a fair return. In order to prevent the allowance of a return that is something other than a fair return, if the rate base is greater (smaller) than the regulated firm's original cost rate base; the return applied to that rate base should be adjusted downward (upward).

For example, it is my understanding that the "fair value" rate base in Arizona has been determined to be a 50/50 weighting of original cost rate base and what is termed a

"Reconstruction Cost New less Depreciation" (RCND) rate base. The primary difference between the original cost rate base and the RCND rate base is that, in the latter, the original cost of the plant equipment (by vintage) is increased to current levels through a price inflation adjustment which is modified by a measure of the useful life of each plant item (similar to depreciation). Therefore, the RCND rate base includes an inflation adjustment that the original cost rate base does not; and, for that reason, the former will be a higher dollar value than the latter. As I noted above, in order to provide a fair return in a situation when the utility rate base is to be greater than the original cost, the allowed return must be reduced below the cost of capital (which provides a fair return based on original cost rate base).

It is my understanding that Utilitech (Staff revenue requirements witnesses) has provided a calculation of the fair return on fair value rate base which incorporates my cost of capital findings.

FLOTATION COSTS

Q. HAVE YOU INCLUDED AN INCREMENT TO YOUR EQUITY CAPITAL COST ESTIMATE TO ACCOUNT FOR ISSUANCE EXPENSES AND MARKET PRESSURE?

A. No, an explicit adjustment to "account for" flotation costs is unnecessary for several reasons. First, such adjustments are usually predicated on the prevention of the dilution of stockholder investment. However, the reduction of the book value of stockholder investment due to issuance expenses can occur only when the utility's stock is selling at a market price equivalent to or below its book value. In the current market environment, with telecommunications common stock selling at more than a 400% premium to its book value, every time a new share of stock is sold, all shareholders realize an increase in the per share book value of their investment. In other words, the stockholders' investment value is increased when new stock is issued, not decreased, and there is no need to "compensate" stockholders for a hypothetical dilution of book value that does not exist.

Second, assuming *arguendo* the need for an issuance expense adjustment to the cost of equity, the majority of the issuance expenses incurred in any public offering are "underwriter's fees" or "discounts". Underwriter's discounts are not out-of-pocket expenses for the issuing company. On a per share basis, they represent only the difference between the price the underwriter receives from the public and the price the utility receives from the underwriter for its stock. As a result, underwriter's fees are not an expense incurred by the issuing utility and recovery of such "costs" should not be included in rates.

Third, my DCF growth rate analysis includes an upward adjustment to equity capital costs which accounts for investor expectations regarding stock sales at market prices in excess of book value, and any further explicit adjustment for issuance expenses is unnecessary.

Fourth, research[11] has shown that a specific adjustment for issuance expenses is unnecessary. There are other transaction costs which, when properly considered, eliminate the need for an explicit issuance expense adjustment to equity capital costs. The transaction cost that is improperly ignored by the advocates of issuance expense adjustments is brokerage fees. Issuance expenses occur with an initial issue of stock. Brokerage fees occur in the much larger secondary market where pre-existing shares are traded daily. Brokerage fees tend to increase the price of the stock to the investor to levels above that reported in the Wall Street Journal, for example. Therefore if those kinds of transaction costs were included in a DCF cost of capital estimate they would raise the effective market price, lower the dividend yield and lower the investors' required return. If one considers transaction costs which, supposedly, raise the required return (issuance expenses), then costs which lower the required return (brokerage fees) should also be considered. As shown by the research noted above, those transaction costs essentially offset each other and no specific equity capital cost adjustment is warranted.

[11] "A Note on Transaction Costs and the Cost of Common Equity for a Public Utility," Habr, D., National Regulatory Research Institute Quarterly Bulletin, January 1988, pp. 95-103.

IV. COMMENTS ON COMPANY TESTIMONY

Q. HOW HAS COMPANY WITNESS CUMMINGS ESTIMATED THE EQUITY CAPITAL COST OF US WEST COMMUNICATIONS?

A. Company witness Cummings has relied on an equal weighting of the results of a DCF analysis and a CAPM analysis to estimate the Company's equity capital cost rate. I believe the Company's DCF methodology is unsound and will address my concerns regarding that DCF analysis, initially. I will then address certain portions of his CAPM analysis. Because I have discussed the shortcomings of the CAPM when used in cost of capital analysis at length in Appendix D attached to this testimony, my comments on Mr. Cummings' CAPM will be relatively brief. Finally, I will also address Mr. Cummings' corroborative analyses.

Q. ON WHAT DCF MODEL HAS THE COMPANY RELIED TO PROVIDE AN ESTIMATE OF ITS EQUITY CAPITAL COST RATE?

A. Witness Cummings uses the following DCF formulation to estimate equity capital costs:

$$k = \frac{D_1(1+k)^{.75} + D_2(1+k)^{.50} + D_3(1+k)^{.25} + + D_4(1+k)^0}{P_0} + g \qquad (14)$$

The Company terms its version of the DCF the "quarterly DCF" model. This particular version of the DCF model produces cost of equity results that are higher than the standard DCF model. Witness Cummings' DCF, because it contains the same variable "k" on either side of the equation requires an iterative (i.e., trial and error) solution. In other words, given estimates of "g" and the next four quarterly dividends, a value for "k" is assumed and inserted into the equation. If the two sides of the equation are not equal, another "k" value, either higher or lower, must be tried and the process continued until the equation is correct.

Aside from the obvious mathematical complexity of this model, which makes it doubtful that the average investor actually uses it, this version of the DCF model effectively increases dividends increase every quarter. Not one of the companies analyzed by the Company witness has raised its dividend every quarter. USWC-Arizona's assumption of a

dividend increase every quarter, therefore, overstates investor expectations. Also, as noted previously in my testimony, since the DCF is derived as a quarterly model, it requires no additional "adjustments" and the proper dividend to use in the model is the expected next quarter dividend, annualized. If the dividend has regularly been increased in the quarter following analysis, then the current quarterly dividend should be increased by one plus the annual growth rate and then annualized to calculate the DCF dividend yield. However, the dividend does not increase every quarter nor do investors expect it to do so.

Witness Cummings' rationale supporting a constantly increasing dividend is grounded on the ability of investors to reinvest those dividends every quarter in equivalent risk/return investments to earn the incremental "time value of money". That may or may not represent the action of investors. Regardless, it is not the ratepayers' responsibility to provide the investor any additional return he or she might receive by reinvesting the quarterly dividend.

Finally, the Federal Energy Regulatory Commission, in its Generic Rate of Return rulemaking proceedings held during the 1980s and early 1990s, has considered and rejected the use of a DCF model which compounds the quarterly dividend. The FERC held in Order 461 (37 FERC ¶61,287) that if the allowed return were determined using a DCF model which included the dividend compounding recommended by Company witness Cummings, the investors would be compensated twice, "--once by the utility [through the allowed rate of return] and once through the investors' reinvestment of the dividends in some other alliterative investment."

Q. WHAT DCF GROWTH RATE METHODOLOGY DOES WITNESS CUMMINGS USE?

A. Witness Cummings relies exclusively on 5-year earnings growth rate forecasts.

Q. WHAT ARE YOUR COMMENTS ON THE EXCLUSIVE USE OF PROJECTED EARNINGS GROWTH RATES IN A DCF ESTIMATE OF THE COST OF EQUITY CAPITAL?

A. In my view, earnings growth rate projections are widely available, are used by investors and, therefore, deserve consideration in an informed, accurate assessment of the investor expected growth rate to be included in a DCF model. I do not believe, however, that projected earnings growth rates should be used as the *only* source of a DCF growth estimate as witness Cummings has done in this case. In other words, projected earnings growth rates are influential in, not determinative of, investor expectations.

Q. PLEASE EXPLAIN WHY EXCLUSIVE RELIANCE ON ANALYSTS' PROJECTED EARNINGS GROWTH RATES IN A DCF EQUITY COST ESTIMATE CAN PRODUCE UNRELIABLE RESULTS.

A. First, it is important to realize that, as I have previously noted in my testimony, projected growth rates may over- or understate dividend growth that can be sustained over the long term by the companies under review. This is important because sustainable growth is required in an accurate DCF assessment of the cost of equity capital. The efficacy of projected earnings growth rates in any specific DCF analysis can only be determined through a study of the underlying fundamentals of growth—something which Company witness Cummings fails to do with his exclusive reliance in analysts' earnings growth rate projections.

Second, there is often associated with the exclusive use of analysts' projected earnings growth rates an erroneous notion of "consensus", i.e., that projected earnings growth rates are what investors are using to estimate return requirements and that those estimates closely agree. As shown in the table below, which shows detailed statistics form analysts' growth rates estimates for Mr. Cummings sample group of telecommunications companies, what is often called a "consensus" earnings growth expectation are, in reality quite divergent.

TABLE I.

Company	Zacks 5-Year Earnings Proj.	Number of Estimates	Range of Estimates	
Bell Atlantic	11.39%	14	5.8%	15.0%
Bell South	11.38%	11	8.0%	16.6%
GTE Corp.	11.90%	13	7.0%	15.0%
SBC Comm.	12.99%	15	9.6%	15.4%
US WEST	7.12%	12	2.4%	10.0%
Averages	10.96%		6.6%	14.4%

Data from Market guide, Multex.com via Yahoo!

From Table I, we see that the analysts' "consensus" growth rate estimates for Mr. Cummings' telecommunications firms are based on projected earnings growth rates that, overall, show a divergence rather than a consensus of investor opinion. For example the analysts surveyed by the analysts that follow US WEST project earnings growth rates for the Company that range from 2.4% to 10%. It is important to remember that the average earnings projection, even though it is called a "consensus" earnings growth estimate, is based on what may be a very wide range of growth rate expectations among the professional analysts. Therefore, caution should be afforded the use of those earnings growth estimates in any DCF analysis and they should not be utilized exclusively as Mr. Cummings has elected to do.

Q. DON'T COST OF CAPITAL EXPERTS WHO RELY EXCLUSIVELY ON EARNINGS GROWTH PROJECTIONS REFER TO ACADEMIC STUDIES WHICH SHOW ANALYSTS' EARNINGS GROWTH ESTIMATES TO BE "SUPERIOR" TO OTHER GROWTH RATE ESTIMATION METHODS?

A. Yes, however, while such studies do show that projected growth rates are superior to simple, mechanical averages of historical growth rates, they do not suggest that projected earnings growth rates are determinative of investor expectations. What those studies actually do is make a good case for the consideration of analysts' growth rate forecasts in a reasoned examination of investor growth rate expectations. With that premise, I quite

agree, and that is how I have elected to use analysts' forecasts in my DCF analysis, i.e., as part of an analysis of growth rate expectations. Those studies do not provide a rationale for and *exclusive* reliance in earnings growth rate projections. Certainly analysts' growth rate projections can influence investor expectations, but it is unreasonable to conclude that they determine those expectations exclusively.

Q. WHAT ARE YOUR COMMENTS REGARDING MR. CUMMINGS' "COMPARABLE RISK COMPANY" DCF ANALYSIS?

A. Mr. Cummings' "comparable company" DCF cost of capital study examines the market data of a group of firms selected by a risk parameter screening process. Although Mr. Cummings selects those companies on the basis of bond rating and cash flow volatility, a key element omitted from his selection process is the level of competition to which the firms are exposed.

Interestingly, Mr. Cummings' selection process includes companies in the "similar risk"-company sample that are essentially utility operations and have, comparatively, low competitive risk. Therefore, only a few of the firms in Mr. Cummings "comparable risk" group enjoy a market position similar to a local exchange telephone operation. Mr. Cummings' DCF result for those utility companies averages is considerably lower than the overall average for the "similar risk"-company sample.

The average DCF result for the utility companies shown in Mr. Cummings' Exhibit PCC-06 (his DCF analysis of the "similar-risk" firms) is approximately 11%[12]. The average DCF result for the other firms is 14.5% (standard deviation = 2.02%). The DCF result for Mr. Cummings' "similar risk" firms with substantial market share positions (the utilities) is more than two full standard deviation units below the average of the unregulated companies included in that sample. Those data indicate that the DCF cost of equity for the competitive firms included in Mr. Cummings sample group is significantly different from the similar companies that enjoyed large market shares. Therefore, included in Mr.

[12] DPL, Inc. (10.7%), IPALCO Enterprises (10.4%), OGE Energy (12.0), Otter Tail Power (10.6%), WPS Resources (11.5%); Duke Energy omitted due to change in business, Northern States Power omitted due to merger and related stock price depression.

Cummings' "comparable risk" sample group selected on the basis of bond rating and cash flow volatility are two subgroups. Those two subgroups have markedly different equity capital costs, according to witness Cummings' own calculations, even though the companies were selected to be of similar risk.

Three conclusions must be drawn from this result: 1) the two groups cannot be of similar investment risk and Mr. Cummings' selection parameters (bond rating and cash flow variability) are insufficient to select similar-risk companies; 2) the risk factor which witness Cummings has failed to consider—the market share position of the firms—has a substantial impact on the market-required cost of equity; and 3) the cost of equity of utility operations which have bond rating and cash flow similarities to USWC is well below the equity cost of unregulated firms with similar bond ratings and cash flow variability. Finally, because Mr. Cummings' average DCF cost of equity for the utility firms with similar bond ratings and cash flow variability—11%—is below my recommended return on equity in this proceeding (11.75%), the latter can be considered to be conservative, according to the data contained in the Company's own analysis.

Q. DOES THIS CONCLUDE YOUR COMMENTS ON WITNESS CUMMINGS' DCF EQUITY COST ESTIMATION ANALYSIS?

A. Yes, it does.

Q. WHAT ARE YOUR COMMENTS ON COMPANY WITNESS CUMMINGS' CAPM ANALYSIS?

A. Witness Cummings uses the CAPM as a co-equal analytical method to the DCF. I have previously discussed the shortcomings of the CAPM when used to estimate the cost of capital in Section III and Appendix D of this testimony. For those reasons I rely on the CAPM as a check of the DCF, but do not believe it deserves co-equal status in estimating the cost of equity. Because I have previously discussed the issues relevant to the CAPM, I will not repeat the entirety of that logic here. However, there are aspects of Mr. Cummings'

application of the CAPM which causes the result to be overstated and of which the Commission should be aware.

Previously in this testimony, I have pointed out that the use of a long-term Treasury security as the risk-free rate in the CAPM includes a level of inflation-related systematic risk that is not called for in the theory on which the CAPM is based. Brealey and Meyers, an authority which Mr. Cummings cites in his Direct Testimony in this proceeding, in The Principles of Corporate Finance, 4th Ed. (McGraw-Hill, New York, p. 194), indicate that the difference between the historical average annual return of T-Bonds and T-Bills should be subtracted from the current T-Bond rate to produce what amounts to a forward-looking T-Bill rate—the proper risk-free rate to be included in the CAPM. However, Mr. Cummings fails to make such an adjustment.

While I have discussed many of the shortcomings of the beta coefficients, which are the key measure of risk in the CAPM model, two aspects are underscored in the workpapers provided by Mr. Cummings in response to Staff Data Request SGH-01-23. In his testimony, Mr. Cummings explains that he calculated his own beta coefficient for US WEST. Staff Data Request SGH-01-23 asked Mr. Cummings to provide those calculations, which he did.

First, the result of Mr. Cummings' regression analysis is a beta coefficient for US WEST of 0.64, not the 0.76 he ultimately uses to estimate the CAPM cost of equity. The 0.64 actual measured beta is often termed a "raw" beta and the 0.76 figure used by Mr. Cummings is termed an "adjusted" beta. Beta coefficients are sometimes adjusted for the supposed tendency for beta coefficients to migrate toward the market beta (1.0) over time. That is a theory in financial economics with which there is disagreement. As a result, both "raw" betas and "adjusted" betas are published in the financial media. Standard & Poor's, for example, publishes "raw" betas and Value Line publishes "adjusted" betas. The point is that it is not clear which actually represents the investment risk of the firm, and the equity cost impact of using one or the other is not trivial. For example, the 0.12 difference between Mr. Cummings' "adjusted" (0.76) and "raw" (0.64) beta for US WEST,

multiplied by a market risk premium of 8.4%[13], indicates an equity cost impact of 101 basis points [0.12 x 8.4% = 1.008%]. Mr. Cummings' CAPM result for US WEST was 12.0% (Cummings Direct, PCC-7), based on his "adjusted" beta. If he had used his "raw" beta calculation, his CAPM result would have been 101 basis points less, or 10.99%—well below my own equity cost estimate.

Second, Mr. Cummings' response to Staff Data Request SGH-01-23 also reveals the tenuous nature of beta as the sole measure of investment risk (which, in the CAPM context, it is). The statistical data accompanying Mr. Cummings calculation of beta indicate that the coefficient of determination or "r-squared" coefficient for that regression is 0.17. That statistic means that only 17% of the risk associated with an investment in US WEST, compared to an investment in the market as a whole, is captured by beta. That result is not an indictment of the manner in which Mr. Cummings calculated his beta coefficient; that he has done without flaw. Rather, that low r-squared statistic is typical for beta coefficients and underscores the fact that 1) beta, alone, is not a reliable indicator of investment risk, and 2) the CAPM should not be utilized as a primary indicator of the cost of equity capital in regulatory rate proceedings.

Q. DOES THIS CONCLUDE YOUR COMMENTS REGARDING MR. CUMMINGS' CAPM ANALYSIS?

A. Yes, it does.

Q. WITNESS CUMMINGS UTILIZES TWO CORROBORATIVE ANALYSES, WHICH HE TERMS "REASONABLENESS TESTS." WHAT ARE YOUR COMMENTS REGARDING HIS FIRST ANALYSIS?

A. Witness Cummings performs a DCF analysis on a sub-set of the S&P 500 Index and determines that the cost of capital of the "average" stock is higher than his recommendation for USWC-Arizona and that, therefore, his recommendation is reasonable. The witness is able to verify his result that the Company has "slightly" less risk than average by relying on

[13] Ibbotson's historical market risk premium range is 7.4% to 9.4%; 8.4% is a mid-point.

telecommunications firms' beta coefficients, which are below the definitional beta for the market—1.0. As I have noted previously in my testimony above, and as confirmed in recently published research in the field of theoretical finance, beta has been shown to be an unreliable indicator of relative risk. Therefore, this corroborative analysis suffers from the same shortcomings as the CAPM, i.e., a heavy reliance on the accuracy of beta.

In fact, witness Cummings' first corroborative analysis could be used to support my equity return recommendation in this proceeding. In my view, local exchange telephone company operations have substantially less risk than the average unregulated, competitive industrial firm. Therefore, my estimate of the cost of equity capital for telecommunications firms, 11.75%, which is below that of unregulated industrial firms but above that of similar-risk utility operations, is reasonable according to witness Cummings' DCF results for the average company.

Q. WHAT ARE YOUR COMMENTS ON WITNESS CUMMINGS' SECOND CORROBORATIVE METHODOLOGY?

A. Witness Cummings' second "reasonableness test" is another version of is first, and suffers from the same shortcomings. The witness subtracts bond yields from his estimate of the market return (discussed above), multiplies that risk premium by a telecommunications-type beta to arrive at a range of results which coincide with the upper end of his recommended return. As with the previous analysis, however, this risk premium/CAPM analysis does not constitute a check of the reasonableness of the witness' equity cost estimation techniques, it merely indicates that the equity cost he estimates for the market is higher than the cost rate he recommends in this proceeding. In my view, both of his equity cost estimates are overstated.

Q. DOES THIS CONCLUDE YOUR COMMENTS ON THE EQUITY COST ESTIMATES PROVIDED BY COMPANY WITNESS CUMMINGS?

A. Yes, it does.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, it does.

APPENDIX A

EDUCATION AND EMPLOYMENT HISTORY
OF
STEPHEN G. HILL

EDUCATION

Auburn University - Auburn, Alabama - Bachelor of Science in Chemical Engineering (1971); Honors - member Tau Beta Pi national engineering honorary society, Dean's list, candidate for outstanding engineering graduate; Organizations - Engineering Council, American Institute of Chemical Engineers

Tulane University - New Orleans, Louisiana - Masters in Business Administration (1973); concentration: Finance; awarded full two-year scholarship; Organizations - member MBA curriculum committee, Vice-President of student body, academic affairs

Continuing Education - NARUC Regulatory Studies Program at Michigan State University

EMPLOYMENT

West Virginia Air Pollution Control Commission

Position: Engineer ; Responsibility: Overseeing the compliance of all chemical companies in the State with the pollution guidelines set forth in the Clean Air Act. Analyzing proposed control facility costs with regard to their financial impact on the company under review and testifying before the Commission on those issues.

West Virginia Public Service Commission-Consumer Advocate

Position: Rate of Return Analyst ; Responsibility: All rate of return research and testimony promulgated by the Consumer Advocate; also testimony on engineering issues, when necessary.

PUBLICATIONS

"The Market Risk Premium and the Proper Interpretation of Historical Data," Proceedings of the Fourth NARUC Biennial Regulatory Information Conference, Volume I, pp. 245-255.

"Use of the Discounted Cash Flow Has Not Been Invalidated," Public Utilities Fortnightly, March 31, 1988, pp. 35-38.

MEMBERSHIPS

American Institute of Chemical Engineers; Society of Utility and Regulatory Financial Analysts (Certified Rate of Return Analyst)

APPENDIX B

Q. PLEASE PROVIDE AN EXAMPLE WHICH DESCRIBES THE DETERMINANTS OF LONG-TERM SUSTAINABLE GROWTH.

A. Assume that a hypothetical regulated firm had a first period common equity or book value per share of $10, the investor-expected return on that equity was 10% and the stated company policy was to pay out 60% of earnings in dividends. The first period earnings per share are expected to be $1.00 ($10/share book equity x 10% equity return) and the expected dividend is $0.60. The amount of earnings not paid out to shareholders ($0.40), the retained earnings, raises the book value of the equity to $10.40 in the second period. The table below continues the hypothetical for a five year period and illustrates the underlying determinants of growth.

TABLE A.

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	GROWTH
BOOK VALUE	$10.00	$10.40	$10.82	$11.25	$11.70	4.00%
EQUITY RETURN	10%	10%	10%	10%	10%	-
EARNINGS/SH.	$1.00	$1.040	$1.082	$1.125	$1.170	4.00%
PAYOUT RATIO	0.60	0.60	0.60	0.60	0.60	-
DIVIDENDS/SH.	$0.60	$0.624	$0.649	$0.675	$0.702	4.00%

We see that under steady-state conditions, the earnings, dividends and book value all grow at the same rate. Moreover, the key to this growth is the amount of earnings retained or reinvested in the firm and the return on that new portion of equity. If we let "b" equal the retention ratio of the firm (1 – the payout ratio) and let "r" equal the firm's expected return on equity, the DCF growth rate "g" (also referred to as the internal or sustainable growth rate) is equal to their product, or

$$g = br. \qquad \text{(i)}$$

Professor Myron Gordon, who developed the Discounted Cash Flow technique and first

introduced it into the regulatory arena, has determined that Equation (i) embodies the underlying fundamentals of growth and, therefore, is a primary measure of growth to be used in the DCF model. Professor Gordon's research also indicates that analysts' growth rate projections are useful in estimating investors' expected sustainable growth.

I should note here that the above hypothetical does not allow for the existence of external sources of equity financing, i.e., sales of common stock. Stock financing will cause investors to expect additional growth if the company is expected to issue new shares at a market price that exceeds book value. The excess of market over book would inure to current shareholders, increasing their per share equity value. Therefore, if the company is expected to continue to issue stock at a price that exceeds book value, the shareholders would continue to expect their book value to increase and would add that growth expectation to that stemming from earnings retention or internal growth. Conversely, if a company were expected to issue new equity at a price below book value, that would have a negative effect on shareholder's current growth rate expectations. In such a situation, shareholders would perceive an overall growth rate less than that produced by internal sources (retained earnings). Finally, with little or no expected equity financing or a market-to-book ratio near unity, investors would expect the sustainable growth rate for the company to equal that derived from Equation (i), "g = br." Dr. Gordon[1] identifies the growth rate which includes both expected internal and external financing as:

$$g = br + vs, \qquad \text{(ii)}$$

where,

g = DCF expected growth rate,
r = return on equity,
b = retention ratio,
v = fraction of new common stock sold that accrues to the current shareholder,
s = funds raised from the sale of stock

[1]Gordon, M.J., The Cost of Capital to a Public Utility, MSU Public Utilities Studies, East Lansing, Michigan, 1974, pp., 30–33.

as a fraction of existing equity.

Additionally,

$$v = 1 - BV/MP, \qquad \text{(iii)}$$

where,

MP = market price,
BV = book value.

I have used Equation (iii) as the basis for my examination of the investor expected long-term growth rate (g) in this proceeding.

Q. IN YOUR PREVIOUS EXAMPLE, EARNINGS AND DIVIDENDS GREW AT THE SAME RATE (br) AS DID BOOK VALUE. WOULD THE GROWTH RATE IN EARNINGS OR DIVIDENDS, THEREFORE, BE SUITABLE FOR DETERMINING THE DCF GROWTH RATE ?

A. No, not necessarily. Rates of growth derived from earnings or dividends alone can be unreliable due to extraneous influences on those parameters such as changes in the expected rate of return on common equity or changes in the payout ratio. That is why it is necessary to examine the underlying determinants of growth through the use of a sustainable growth rate analysis.

If we take the hypothetical example previously stated and assume that, in year three, the expected return on equity rises to 15%, the resultant growth rate for earnings and dividends far exceeds that which the company could sustain indefinitely. The potential error in using those growth rates to estimate "g" is illustrated in the following table.

TABLE B.

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	GROWTH
BOOK VALUE	$10.00	$10.40	$10.82	$11.47	$12.157	5.00%
EQUITY RETURN	10%	10%	15%	15%	15%	10.67%
EARNINGS/SH.	$1.00	$1.040	$1.623	$1.720	$1.824	16.20%
PAYOUT RATIO	0.60	0.60	0.60	0.60	0.60	-
DIVIDENDS/SH.	$0.60	$0.624	$0.974	$1.032	$1.094	16.20%

What has happened is a shift in steady-state growth paths. For years one and two, the sustainable rate of growth (g=br) is 4.00%, just as in the previous hypothetical. Then, in the last three years, the sustainable growth rate increases to 6.00% (g=br = 0.4x15%). If the regulated firm were expected to continue to earn a 15% return on equity and retain 40% of its earnings, then a growth rate of 6.0% would be a reasonable estimate of the long-term sustainable growth rate. However, the compound annual growth rate for dividends and earnings exceeds 16% which is the result only of an increased equity return rather than the intrinsic ability of the firm to grow continuously at a 16% annual rate. Clearly, this type of estimate of future growth cannot be used with any reliability at all. In the case of the hypothetical, to utilize a 16% growth rate in a DCF model would be to expect the company's return on common equity to increase by 50% every five years into the indefinite future. This would be a ridiculous forecast for any regulated firm and underscores the importance of utilizing the underlying fundamentals of growth in the DCF model.

It can also be demonstrated that a change in our hypothetical regulated firm's payout ratio makes the past rate of growth in dividends an unreliable basis for predicting "g". If we assume our regulated firm consistently earns its expected equity return (10%) but in the third year, changes its payout ratio from 60% to 80% of earnings, the results are shown in the table below.

TABLE C.

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	GROWTH
BOOK VALUE	$10.00	$10.40	$10.82	$11.036	$11.26	3.01%
EQUITY RETURN	10%	10%	10%	10%	10%	-
EARNINGS/SH.	$1.00	$1.040	$1.082	$1.104	$1.126	3.01%
PAYOUT RATIO	0.60	0.60	0.80	0.80	0.80	7.46%
DIVIDENDS/SH.	$0.60	$0.624	$0.866	$0.833	$0.900	10.67%

What we see here is that, although the company has registered a high dividend growth rate (10.67%), it is, again, not at all representative of the growth that could be sustained indefinitely, as called for in the DCF model. In actuality, the sustainable growth rate has declined from 4.0% the first two years to only 2.0% (g=br = 0.2x10%) during the last three years due to the increased payout ratio. To utilize a 10% growth rate in a DCF analysis of this hypothetical regulated firm would 1) assume the payout ratio of the firm would continue to increase 33% every five years into the indefinite future, 2) lead to the highly implausible result that the firm intends to consistently pay out more in dividends than it earns and 3) grossly overstate the cost of equity capital.

APPENDIX C
SAMPLE COMPANY GROWTH RATE ANALYSES

TELECOMMUNICATIONS COMPANIES

BEL - BELL ATLANTIC - BEL's sustainable growth rate began the five-year historical period at a 7% rate, but through higher earned returns due to accounting changes (book equity write-downs), the "b times r" growth rate rose to 15% by 1999. The sustainable growth rate averaged 10.83% over the most recent five-year period. Value Line projects "b times r" growth in the future in the 15% to 16% range, again, a product primarily of an equity base reduced through accounting treatment. Further, because of write-offs, BEL's book value declined at a 2.5% rate over the most recent five years and, due to Bell Atlantic's merger with NYNEX the projected growth in book value is also expected to jump to the 14% level over the next five years. BEL's earnings per share are expected to grow at an 11% (VL) to 11.39% (Analysts') rate, which is higher than the 7.5% rate of growth in earnings experienced by that company over the most recent five years, but does not aproach the level indicated by the sustainable growth data. Historically, BEL's dividends increased at a 2.5% annual rate, but are projected by Value Line to increase at only a slightly higher rate, 3%, over the next five years. The average earnings, dividend and book value growth rates projected by Value Line for this company is 9%. Investors can reasonably expect a sustainable internal growth for this company of 10.5%.

With regard to expected growth from external sources (sales of stock at prices above book value), BEL's shares outstanding grew at a 15.4% rate over the past five years due to the merger with NYNEX. Since the merger the company's shares outstanding have decreased. Using 1999 as a base, Value Line's projection of total shares outstanding for BEL during the 2003-2005 period indicates a –0.75% growth rate in the number of shares. A growth rate in the number of shares outstanding of –0.25% for this company is reasonable.

BLS - Bell South - Bell South's sustainable growth rate began the five-year historical period at 6.8%, but rapidly grew to 16% by 1999 as equity returns and retention ratios increased. Value Line projects that earned returns will stabilize for BLS over the next five years but retention ratios will continue to increase, giving rise to an internal growth rate estimate of nearly 20% by the 2003-2005 period. BLS' book value, which increased at a 2% rate over the past five years, according to Value Line, is projected to increase at a 9.5% rate in the future. VL and Analysts' project earnings growth rates for BLS of 13% and 11.38%, respectively. However, BLS' dividend growth projections indicate only a 2.5% rate of growth in the future. Historically, BLS' earnings grew at a 11.5% rate while dividends increased at only a 1.5% rate. These data show that investors can reasonably expect that long-term sustainable growth for this company will be higher in the future than it has been in the past, though not as high as that indicated by the projected sustainable growth rate data. The average earnings, dividend and book value growth rates projected by Value Line for this company is 9%. A 10.5% internal growth rate is reasonable in this instance.

BLS' sares grew at only a –1.35% rate over the past five years, and Value Line projects that the number of shares outstanding will not decrease through the 2003-2005 period. A growth rate in the number of shares outstanding of -.25% provides reasonable long-term estimate for this company.

GTE – GTE Corp. - GTE's sustainable growth rate began the historical period at 10.3%, and averaged 12.45% for the five-year period, with a moderation in growth in 1998. However, VL projects the sustainable will rise by the 2003-05 period to a level near 16%, through an increasing retention ratio. GTE's book value growth during the most recent five years (-5%), again affected by reductions in book equity, is expected to rebound to a 17% rate in the future. GTE's earnings per share are projected to increase at a 11.5% (VL) to 11.9% (Analysts') rate, but its dividends are expected to grow at only a 0.5% rate, moderating long-term growth expectations. Historically GTE's earnings have shown 6.5% growth, while its dividends increased at a 1% rate. The average projected earnings, dividend and book value growth for GTE published by Value Line is 9.67%, well below historical sustainable growth rate averages. Therefore, investors can reasonably expect a sustainable growth rate somewhat lower than that recently established; 11.25% is reasonable for this company.

Regarding share growth, GTE's shares outstanding grew at a –0.03% rate over the past five years. The number of shares is expected to grow at approximately a 0.02% rate through 2003-05, but beyond 1999, the number of shares are not expected to increase. An expectation of share growth of 0% for this company is reasonable.

SBC - SBC Communications - SBC's sustainable growth rate began the five-year historical period at about a 14% rate, and averaged almost 16% for the entire 5-year period. Value Line projects that SBC's high equity returns will moderate somewhat and a 14% rate of internal growth will be maintained through the 2003-2005 period. As with the other RHCs, the per share data series projections indicate slower long-term growth for this company. For example, Value Line and institutional Analysts project 11.5% and 12.9% growth rates in earnings per share. However, over the past five years, when earnings growth for SBC was 10.5%, that company's dividends grew at only a 4% rate. Value Line projects that dividends will increase at a 5.5% rate in the future, higher than past growth but well below other growth rate measures, moderating long-term growth rate expectations. The average earnings, dividends and book value projected by Value Line for SBC is 11.5%, the highest projected growth rate for the telecommunications companies studied here. In this instance, a long-term sustainable internal growth rate of 11.0% is reasonable for this company.

Value Line's projections for shares outstanding for SBC take into account that company recent acquisition of Ameritech and include the issuance of over 1 billion shares of stock. Those data are not useful in estimating a long-term growth rate in shares outstanding. However, Value Line also reports that SBC's shares outstanding showed only a 0.01% rate of growth prior to that company's acquisition of Pacific Telesis. Also, following the Ameritech merger, Value Line projects no increase in shares outstanding for SBC. Therefore, investors relying on these data would anticipate no additional growth over the long-term due to sales of stock at prices above book value.

USW - US WEST Communications - Over the most recent five years USW's internal sustainable growth has averaged only 3.56%, even with earned returns (on a diminished book value) of approximately 30%. Due to USW's additional write-down of book value in 1998 to only $1.50 per share, Value Line reports the company's return on equity as "NMF"—no meaningful figure. In the future, Value Line projects that USW will earn equity returns in excess of 40%, and will retain more earnings, creating a sustainable growth projection by the 2003-2005 period of 25%. In my view, that figure does not represent a reasonable expectation for long-term sustainable growth. That very low 1998 book value also gives rise to a very

high book value growth projection of USW (23%). However, measured from the prior year (1997) USW's projected book value growth is 9.3%. Again, for this firm, the per share data series show considerably lower growth rates for USW. For example, Value Line also projects USW's earnings and dividends will increase at 13% and 0% rates, respectively. Institutional Analysts' five-year earnings growth projection for USW is lower than Value Line's: 7.12% (12 analysts polled). Again, the low rate of dividend growth projected over the next five years would cause investors to moderate any long-term growth expectations indicated by the sustainable growth rate data. However, it is reasonable to believe that USW's long-term future growth will exceed historical growth rate levels. An internal growth rate of 8.25% is reasonable for USW.

With regard to share growth the historical data published by Value Line for USW indicate a growth in shares outstanding of about 1.7%. However, over the next five years, Value Line projects very little growth from shares through the 2003-2005 period. A growth rate in the number of shares outstanding for USW of 0% is reasonable on a forward-looking basis.

PROPERTY/CASUALTY INSURANCE COMPANIES

BKLY - W. R. Berkley Corp. - BKLY's sustainable growth rate averaged 7.04% over the five-year historical period. After continuing to pay dividends with negative earnings level in 1999, VL projects that sustainable growth by the 2003-05 period at about 6.6%, roughly equal to historical averages. BKLY's book value, however, which increased at a 9% rate during the most recent five years is expected to decline to a 2% rate in the future. In addition, BKLY's dividends are expected to grow at a 5.5% rate, which is below the projected sustainable growth and well below the historical dividend growth of 11.5%. Those data indicate that growth expectations for this company will be lower in the future. Earnings growth projections show a steady to moderating trend. Historically BKLY's earnings grew at a 5.5% rate, according to Value Line but are expected to decline to a 2% to over the next five years. Analysts, however, project 14% earnings growth for this company, a very wide disparity. The sustainable growth rate data indicate that investors can expect sustainable growth from BKLY in the future to approximate that which has existed in the past, but dividend, book value and (some) earnings growth projections indicate steady or downward growth trends. Investors can reasonably expect a sustainable growth rate of 7.0% for this company.

Regarding share growth, BKLY's shares outstanding fell at approximately a 4% rate over the past five years following a large equity issuance in 1995. The growth rate in shares outstanding was negative prior to and following that equity issuance. The growth rate in the number of shares outstanding is expected to decline at a 1.25% rate between 1999 and the 2003-05 period. An expectation share growth of –1.5% for this company is reasonable.

CB - The Chubb Corporation - CB's sustainable internal growth rate averaged 8.08% over the five-year historical period, winding up in 1999 just below the average 5-year level. VL projects CB's growth will moderate in the future, reaching 6.82% by 2003-05. CB's book value growth rate is expected to remain relatively stable, increasing slightly to 9% from 8.5%. Also, CB's earnings per share are projected to increase at 6.5% (VL) and 11.8% (Analysts), but its dividends are expected to grow at 7%, similar to levels indicated by the projected sustainable growth rate. Historically, CB's earnings and dividends grew at 6% and 8% rates, respectively, according to VL. Given both higher and lower projections for the

future, investors can expect a sustainable growth rate near past averages. and 8% is a reasonable expectation for CB.

Regarding share growth, CB's shares outstanding grew at a 0.26% rate over the past five years. The level of share-growth is expected by VL to decline at a 1.9% rate through 2003-05. An expectation share growth of –0.25% for this company is reasonable.

CINF - Cincinnati Financial Corp. - CINF's sustainable growth rate averaged 3.93% over the five-year historical period, but fell below that level during the most recent two years, indicating a downward trend. VL expects internal growth to continue at the level which existed during the historical study period, indicating sustainable growth by the 2003-05 period of about 4%. CINF's book value grew at a 21.5% rate during the most recent five years (that rate fell to 8.7% over the psat three years), but is expected by Value Line to increase at a 15% rate in the future. Also, CINF's earnings per share are projected to increase at a 11.5% to 10% rate (VL & Analysts, respectively). Historically, CINF's earnings growth was 7.5%. Those per share data indicate an increasing growth expectation for CINF, relative to historical growth. However, CINF's dividends, which grew at a 12.5% rate over the most recent five years are expected to fall to a 10.5% rate in the future. The projected earnings, dividend and book value growth rates are considerably higher than indicated by the sustainable growth rate. Investors can reasonably expect a sustainable growth rate of 10.75% for this company.

Regarding share growth, CINF's shares outstanding fell at approximately a 0.7% rate over the past five years. That level of shares outstanding is expected by VL to fall at nearly a 1.5% rate through 2003-05. An expectation share growth of -1% for this company is reasonable.

OCAS - Ohio Casualty Corp. - OCAS's sustainable internal growth rate averaged 3.92% over the five-year historical period. VL projects OCAS's growth to fall below historical average levels in 2000, with negative growth predicted and then increase to roughly 6.7% by 2003-05. OCAS's book value growth rate is expected to fall from 11% to only 1.5%, indicating an expectation for lower growth in the future. Also, OCAS's earnings per share are projected to increase at 7% (VL) and 10% (Analysts), but its dividends are expected to grow at 3%, moderating growth expectations. Historically, OCAS's earnings and dividends grew at 3% and 4.5% rates, respectively, according to VL. Investors can reasonably expect a sustainable growth rate of 7.75%, from OCAS.

Regarding share growth, OCAS's shares outstanding grew at a negative 4% rate over the past five years. The level of share growth is expected by VL to be flat through 2003-2005, indicating –0.03% growth by that time. An expectation share growth of –0.25% for this company is reasonable.

SAFC - SAFECO Corporation - SAFC's sustainable growth rate averaged 4.59% for the five-year historical period. The sustainable growth in the most recent year, however, was approximately 1.3%, well below the five-year average. The sustainable growth in 2000 is projected to continue at levels below that five-year average, and to rise by the 2003-05 period to a level of approximately 4%. These data would indicate that investors can expect future growth to approximate past averages. However, SAFC's book value growth during the most recent five years (15.5%) is expected to decline in the future to a growth rate of 5.5%. SAFC's earnings per share are projected to increase at a 7% (VL) to 9.4% (Analysts) rate, and its dividends are expected to grow at a 12.5% rate, after increasing at a 9% rate over the past five years. Investors can reasonably expect a sustainable growth rate of 9.00% for this company.

Regarding share growth, SAFC's shares outstanding grew at a 0.57% rate over the past five years due to a large equity issuance in 1997. Since then, the number of shares outstanding has been reduced. The number of shares outstanding is expected to decline through the 2003-05 period, at approximately a 1.5% rate. An expectation share growth of -0.25% for this company is reasonable.

SPC - St. Paul Companies - SPC's sustainable growth rate averaged 8.88% over the five-year historical period. After falling well below that historical average sustainable growth rate level in 1998, VL projects a sustainable growth by the 2003-05 period to recover to a level somewhat below the historical average; approximately 7.3%. SPC's book value, which increased at a 12.5% rate during the most recent five years, is expected to fall to a 5% rate in the future. Also, SPC's dividends are expected to grow at a 4% rate, after increasing at a 7% rate over the most recent five years. Also, SPC's earnings grew at an 11.5% rate historically, but are expected to increase at a rate of from 4% (by VL) to 10.07% (by Analysts), i.e., below past averages and braketing sustainable growth rate levels. Investors can reasonably expect a sustainable growth rate of 8.25% for SPC.

Regarding share growth, SPC's shares outstanding grew at approximately an 7.5% rate over the past five years due to a large equity issuance in 1998. Prior to that time, shares outstanding were declining. The growth rate in the number of shares outstanding is expected to decline again through 2003-05 at a –1.8% rate. An expectation share growth of 0% for this company is reasonable.

SIGI - Selective Insurance Group - SIGI's sustainable growth rate averaged 7.64% over the five-year historical period, showing a declining trend. VL projects that the company will maintain sustainable growth levels through the 2003-05 period at approximately 7.3%--roughly equal to historical averages. SIGI's projected book value growth rate, however, shows growth declining from 11% over the past five years to 6.5% in the future. SIGI's earnings per share are projected to increase at a 5%-9% (VL & Analysts, respectively) rate, after growing at a 15% rate, historically. The company's dividends are expected to grow at a 3.5% rate, after increasing at only a 0.5% rate in the past. Investors can reasonably expect a sustainable growth rate of 8.25% for this company.

Regarding share growth, SIGI's shares outstanding fell at approximately a 2% rate over the past five years. That level of shares outstanding is expected by VL to continue to decline at approximately a 0.5% rate through 2003-05. An expectation share growth of –0.75% for this company is reasonable.

TRH - Transatlantic Holdings Inc. - TRH's sustainable growth rate averaged 12.55% over the five-year historical period with lower results in the most recent year. VL projects sustainable growth by the 2003-05 period will moderate to approximately 11%. TRH's book value, which increased at an 17.5% rate during the most recent five years, is expected to increase at a 14.0% rate in the future. Also, TRH's dividends are expected to grow at a 12% rate, which is higher than the indicated sustainable growth but below the historical dividend growth of 15.5%. Earnings show a substantial moderating trend. Historically TRH's earnings grew at a 20.5% rate, but are expected to continue in the future at a 9% rate (VL & Analysts). The dividend, earnings, and book value growth rate data for this company indicate that growth in those parameters is trending toward the projected sustainable growth rate. Investors can reasonably expect a sustainable growth rate of 10.75% for TRH.

Regarding share growth, TRH's shares outstanding rose at approximately a 0.3% rate over the past five years. The growth rate in the number of shares outstanding is expected to increase at a 0.1% rate through 2003-05. Those

projections indicate that future share growth will moderate. An expectation share growth of 0.15% for this company is reasonable.

AIG - American International Group - AIG's sustainable growth rate averaged 12.65% for the five-year historical period. The sustainable growth in 2000 is projected to rise slightly above levels that were recently achieved, and fall back, by the 2003-05 period to a level near 13.5%. AIG's book value growth during the most recent five years (13%) is expected to be decline to a 12% rate in the future. AIG's earnings per share are projected to increase at a 13% (VL) to 14.3% (Analysts) rate, and its dividends are expected to grow at a 13.5% rate, similar to long-term sustainable growth expectations. Investors can reasonably expect a sustainable growth rate of 13%.

Regarding share growth, AIG's shares outstanding increased at approximately a 3.8% rate over the past five years, due to an equity issuance in 1999. The number of shares outstanding declined prior to that equity issuance. Following two years of no growth, share growth is expected to continue at approximately 0.6% . An expectation share growth of 0.5% for this company is reasonable.

UNIT - Unitrin, Incorporated - UNIT's sustainable internal growth rate averaged 3.44% over the five-year historical period. VL projects UNIT's growth to fall below historical average levels in 2000 and then increase to approximately the 3.7% level by 2003-05. Indicating future growth at the same rate as historical growth. UNIT's book value growth is expected to decrease slightly from 3.5% to 3.0%. However, UNIT's earnings per share are projected to increase at a 10.5% (VL) rate [Analysts 5-year growth rates not available], and its dividends are expected to grow at 6.5%. Historically, UNIT's earnings and grew at 8.5% and the company's dividends (which were just initiated in 1990) showed 15% growth, according to Value Line. However, that historical growth in dividends would not be weighed heavily by investors in assessing long-term sustainable growth. Investors can reasonably expect a sustainable growth rate of 7.75%, from UNIT. That growth rate level is well above the sustainable growth indication, but gives recognition to the near-term growth potential contained in the Value Line's projected earnings and dividend growth for this company.

Regarding share growth, UNIT's shares outstanding grew at a negative 2% rate over the past five years. The level of reduction in shares outstanding is expected by VL to moderate to approximately a –1.5% rate through 2003-05. An expectation share growth of negative 1.5% for this company is reasonable.

GAS DISTRIBUTORS

ATG - AGL Resources - ATG's sustainable growth rate has averaged about 1.8% over the most recent five year period (1995-1999), including a set-back with substantially negative growth in 1999, due to restructuring. VL expects ATG's sustainable growth to approximate that historical growth rate level by 2001 and to reach 3.8% by the 2003-2005 period. ATG's book value growth rate is expected to be 3% over the next five years, an increase from the 2.5% rate of growth experienced over the past five years. Also, ATG's earnings per share are projected to increase at a 5.37% (IBES) to 5% (VL) rate, but its dividends are expected to grow at only 1%, moderating sustainable growth expectations. Over the past five years, ATG's earnings grew at a 2.0% rate while its dividends increased at a 1.0%

rate. Investors can reasonably expect a sustainable growth rate in the future of 3.75% for ATG.

Regarding share growth, ATG's shares outstanding grew at approximately a 1% rate over the past five years. Following negative growth in 2000 and 20001, the number of shares is projected by VL to increase very slightly through 2003-05. An expectation of share growth of 0.25% for this company is reasonable.

ATO – Atmos Energy Corp - ATO's sustainable growth rate averaged about 3% for the five-year historical period, with a substantial increase in 1998. However, sustainable growth in 1999 fell to –2.36%. Absent that negative result, ATO's historical sustainable growth averages 4.3%. Value Line projects a continuation of negative growth in 2000, and then rise by the 2003-05 period to a level near 7%, through an increasing ROE. ATO's book value growth during the most recent five years (4.5%) is expected to remain stable at a 4.5% rate in the future. ATO's earnings per share are projected to increase at a 10.5% (VL) to 7.3% (IBES) rate, but its dividends are expected to grow at only a 4% rate, moderating long-term growth expectations. Historically ATO's earnings have shown 5% growth, while its dividends increased at a 4.5% rate. Investors can reasonably expect a sustainable growth rate higher than that recently established; 5.5% is reasonable for this company.

Regarding share growth, ATO's shares outstanding grew at approximately a 19% rate over the past five years, due to a merger-related increase in the number of shares outstanding. Since the merger shares have increased at a 2.5% rate. After growing at a 2.25% to 2.4% rate through 2001, the number of shares is expected to grow at approximately a 3% rate through 2003-05. An expectation of share growth of 2.5% for this company is reasonable.

CGC - Cascade Natural Gas Company - CGC's sustainable growth rate averaged negative 0.67% over the five-year historical period with the company paying out more in dividends that it had in earnings in most of those years. IN 1999, however, the company's sustainable growth rose to 2.7%. VL projects that the retention ratio and ROE will rise through 2003-05, bringing sustainable growth near 5.35%. CGC's book value, which increased at a 1% rate during the most recent five years, is expected to increase at a 4% rate in the future, approximating the sustainable growth projection. CGC's earnings per share are projected to increase at a 9.5% (VL) to 4.7% (IBES) rate (a relatively wide disparity in earnings projections), but its dividends are expected to grow at only a 0.5% rate, moderating long-term growth expectations. Also, the difference in earnings growth rate projections for this company indicates that Value Line's earnings growth projections, which are grounded on a prediction of sharply higher ROE's may not be representative of long-term sustainable growth. Historically CGC's earnings grew at a 5.5% rate and its dividends showed 0.5% growth, according to Value Line. The projected sustainable growth, earnings and book value growth rate data indicate that investors can expect the growth from CGC to be higher in the future than has existed in the past. Investors can reasonably expect a sustainable growth rate of 4.0% for CGC.

Regarding share growth, CGC's shares outstanding grew at approximately a 5% rate over the past five years due to an equity issuance in 1996. Since that time shares outstanding have grown at less than 0.5% per year. Further, after showing no growth in 2000 and 20001, CGC's growth rate in shares outstanding is expected to rise at about a 1.6% rate of increase through 2003-05. Those projections indicate that future share growth will be well below past averages. An expectation of share growth of 1.75% for this company is reasonable.

NJR - New Jersey Resources - NJR's sustainable growth rate averaged 3.84% over the five-year period. NJR's average historical sustainable growth has shown steady improvement since 1992, reaching 4.81% in 1999. VL projects, by the 2003-05 period, sustainable growth will rise to levels approximating 7.8%. NJR's book value shows a somewhat less dramatic improvement -- book value grew at a 2.5% rate during the most recent five years but is expected to rise to a 6% rate in the future, according to Value Line. Value Line projects a rate of earnings increase for NJR of 8%, while IBES projects 6.6%. Dividends are expected to grow at a 2.5% rate, moderating long-term growth expectations somewhat. Historically NJR's earnings grew at a 6% rate while its dividends increased at only a 1.5% rate. Therefore, like many other gas distributors, NJR's earnings can be expected to recover rapidly from lower levels experienced in the early 1990s, but will not support dividend increases at the same rate. Investors can reasonably expect a long-term sustainable growth rate of 6.5%.

Regarding share growth, NJR's shares outstanding grew at a –0.07% rate over the past five years. The five-year average level of share growth is expected to decrease to approximately 0.5% annually through 2003-05. An expectation of share growth of –0.25% for this company is reasonable.

NWNG - Northwest Natural Gas - NWNG's sustainable growth rate averaged 2.58% for the five-year period. Absent the negative results experienced in 1998, the average growth would be approximately 3.5%. VL expects sustainable growth to rise to about a 4.5% level through the 2003-05 period. NWNG's book value growth is expected to continue to increase at a 4.5%, slightly below the historical level of 5%. NWNG's earnings per share growth is projected to increase at a 5.5% (VL) to 4.02% (IBES) rate, but its dividends are expected to grow at only a 1% rate, moderating long-term growth expectations. Historically NWNG's earnings and dividends increased at 8.5% and 1% rates, respectively, according to Value Line. Investors can reasonably expect sustainable growth from NWNG to exceed past averages, a sustainable internal growth rate of 4.5% is reasonable for this company.

Regarding share growth, NWNG's shares outstanding grew at approximately a 3% rate over the past five years. That growth in the number of shares is expected by VL to drop to approximately 1.6% through 2003-05. An expectation of share growth of 2.5% for this company is reasonable.

PNY - Piedmont Natural Gas - PNY's sustainable internal growth rate averaged 3.81% over the five-year historical period, but declined below that level in the most recent year. VL projects PNY's sustainable growth to rise to a level of approximately 5.25% through 2003-05. However, PNY's book value growth rate is expected to continue in the future at the historical level of 6.5%, pointing to relative growth rate stability for this company. PNY's earnings per share are projected to increase at 7% to 5.6% (VL & IBES), while its dividends are expected to grow at a 4.5% rate, down from a 6% rate, historically. Sustainable growth has been relatively consistent for this company and is expected to trend upward somewhat in the future close to the 5% level. Dividend growth has been above 5% but is expected to fall below the 5% level in the future, therefore, investors can reasonably expect a sustainable growth rate of 5.25%, from PNY.

Regarding share growth, PNY's shares outstanding grew at a 2% rate over the past five years. The level of share growth is expected by VL to drop to approximately 1% through 2003-05. An expectation of share growth of 1.5% for this company is reasonable.

SJI – South Jersey Industries - SJI's sustainable growth rate has averaged only about 1.4% over the most recent five year period (1995-1999), with results in 1999 dramatically above the historical growth rate level. That higher level of growth is expected to be sustained in 2000 and 20001 and to rise to approximately 4.4% by the 2003-2005 period. SJI's book value growth rate is expected to be 4% over the next five years—an increase from the 3% rate of growth experienced over the past five years. Also, SJI's earnings per share are projected to increase at a 5.25% (IBES) to 7.5% (VL) rate (due to the increasing size of some profitable unregulated operations), but its dividends are expected to grow at only 1.5%, moderating sustainable growth expectations. Over the past five years, SJI's earnings grew at a 1.0% rate while its dividends increased at a 0.5% rate. Investors can reasonably expect a sustainable growth rate in the future to be considerably higher than past averages, 4.5% is reasonable for for SJI.

Regarding share growth, SJI's shares outstanding grew at a 1.1% rate over the past five years. The number of shares outstanding is projected by VL to rise at approximately a 3% rate through 2003-05. An expectation of share growth of 2% for this company is reasonable.

APPENDIX D

CAPITAL ASSET PRICING MODEL

There are many reasons why the Capital Asset Pricing Model (CAPM) should be used with caution in estimating the cost of equity capital. The CAPM was originally designed as a point-in-time tool for selecting stock portfolios that matched a particular investor's risk/return preference. Its use in rate of return analysis to estimate multi-period return expectations for one stock or one type of stock, rather than a diversified portfolio of stocks, takes the model out of the context for which it was intended. Also, questions regarding the fundamental applicability of the CAPM theory and the veracity of beta have arisen recently in the financial literature.

Over the past few years there has been much comment in the financial literature over the strength of the assumptions that underlie the CAPM and the inability to substantiate those assumptions through empirical analysis. Also, there are three fundamental problems with the key CAPM risk measure (beta) that indicate that the CAPM analysis is not a reliable primary indicator of equity capital costs. The first two have been widely known for some time, but the third, and perhaps most damaging criticism, has emerged only in the past few years.

First, cost of capital analysis is a decidedly forward-looking, or *ex-ante*, concept. Beta is not. The measurement of beta is derived completely with historical, or *ex-post*, information. Therefore, the beta of a particular company, because it is usually derived with five years of historical data, is slow to change to current (i.e., forward-looking) conditions, and some price abnormality that may have happened four years ago could substantially affect beta while, currently, being of little actual concern to investors. Moreover, this same shortcoming which assumes that past results mirror investor expectations for the future plagues the market risk premium in an ex-post, or historically-oriented CAPM.

Second, the beta coefficients for any individual stock have very low "r^2" values and, statistically, must be considered relatively poor indicators of company-specific risk. The statistical reliability of beta is thought to increase when it is used to identify the

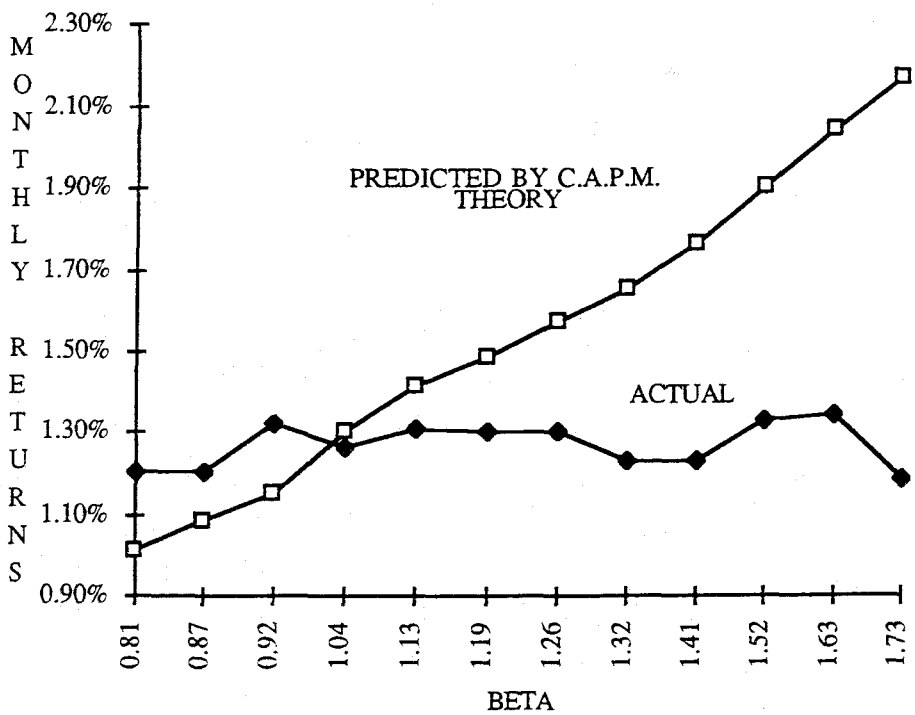
risk/return profile of a diversified group of stocks. However, that is not the manner in which beta is used in regulation, and the low statistical reliability of beta is problematic in cost of capital analysis. As a result of the low statistical reliability of beta, different investor services offer different -- and sometimes widely divergent -- estimates of beta.

Third, a recent study performed for the Center for Research in Security Prices at the University of Chicago Graduate School of Business shows that the assumed relationship between beta, risk and return (i.e., beta varies directly with risk and return) simply does not exist in the marketplace. As Value Line reported in its Industry Review published in March of 1992:

> "Two of the most prestigious researchers in the financial community, Professors Eugene F. Fama and Kenneth R. French from the University of Chicago have challenged the traditional relationship between Beta and return in a recent paper published by the Center for Research in Security Prices. In this study, the duo traced the performance of thousands of stocks over 50 years, but found no statistical support for the hypothesis that the relationship between volatility and return is significantly different from random. Indeed, professor Fama concluded, 'The fact is that Beta, as the sole variable explaining returns on stocks, is dead.' These findings support previous studies that have called into question the real-world applicability of the CAPM Beta, including papers by Keim (Financial Analysts Journal, 1986), and Roll (Journal of Financial Economics, 1977). Never before, however, has the lack of a statistically significant relationship between beta and return been so rigorously and dramatically established." (Value Line Industry Review, March 13, 1992, p. 1-8)

A graphical summary of the findings published in the Fama and French article ("The Cross-Section of Expected Stock Returns," The Journal of Finance, Vol. XLVII, No. 2, June 1992, pp. 427-465) is shown below in Chart I:

CHART I.
MONTHLY STOCK RETURNS v. BETA
1963-1990



Graphing monthly returns against the average beta for the different stock groupings presented by Fama and French shows that the actual risk/return relationship that has existed over the 1963-1990 period (labeled "actual" in Chart I) is vastly different from that predicted by the CAPM theory. For example, Fama and French found that there was little difference in the average monthly returns of stocks with high betas (beta = 1.73, monthly return = 1.18%) and stocks with low betas (beta = 0.81, monthly return = 1.20%), while the assumption embodied in the CAPM is that the returns for those types of stocks should be substantially different. These findings led the researchers to conclude:

> "In short, our tests do not support the most basic prediction of the SLB [Sharpe-Litner-Black, CAPM] model, that average returns are positively related to market ßs." (Id., p. 428)

Fama and French have continued their investigation of the CAPM since their

1992 article and have postulated that a more accurate CAPM would use two additional risk measures in addition to beta. Their three-factor CAPM uses relative size as measured by market value of the firm's stock compared to that of the market index and relative book value-to-market value ratio compared to that of the market index as additional measures of risk[1]. The continuing research of Fama and French indicate that their three-factor CAPM is theoretically superior to the "standard" CAPM which relies on betas as the sole indicator of relative risk, producing results which more closely mimic historical experience.

However, it is important to note that while those authors tout the superiority of their three-factor CAPM to the single-beta CAPM on theoretical grounds, they recognize that there are significant problems with any type of asset pricing model when it comes to using the model to estimate the cost of equity capital. In "Industry Costs of Equity" a working paper published by the Center for Research in Security Prices (Revised October 1996), Fama and French point out quite clearly that the volatility inherent in the historical data is such that a cost of equity estimate produced by <u>any</u> asset pricing model -- whether the traditional CAPM or their three-factor CAPM -- is subject to wide error:

> "We do not take a stance on which is the right asset pricing model. Instead we use both the CAPM and our three-factor model to estimate industry costs of equity (CE's). Our goal is to illustrate in detail two problems that plague CE estimates from any asset pricing model.
>
> The first problem is imprecise estimates of risk loadings [betas or beta-equivalents for other risk measures]. Estimates of CAPM and three-factor risk loadings for industries would be precise if the loadings were constant. We find however, that there is strong variation through time in the CAPM and three-factor risk loadings of industries. As a result, if we are trying to measure an industry's current risk loadings and cost of equity, estimates from full sample (1963-1994) regressions are not more accurate than the imprecise estimates from regressions that use only the latest three years of data. And industries give an understated picture of the problems that

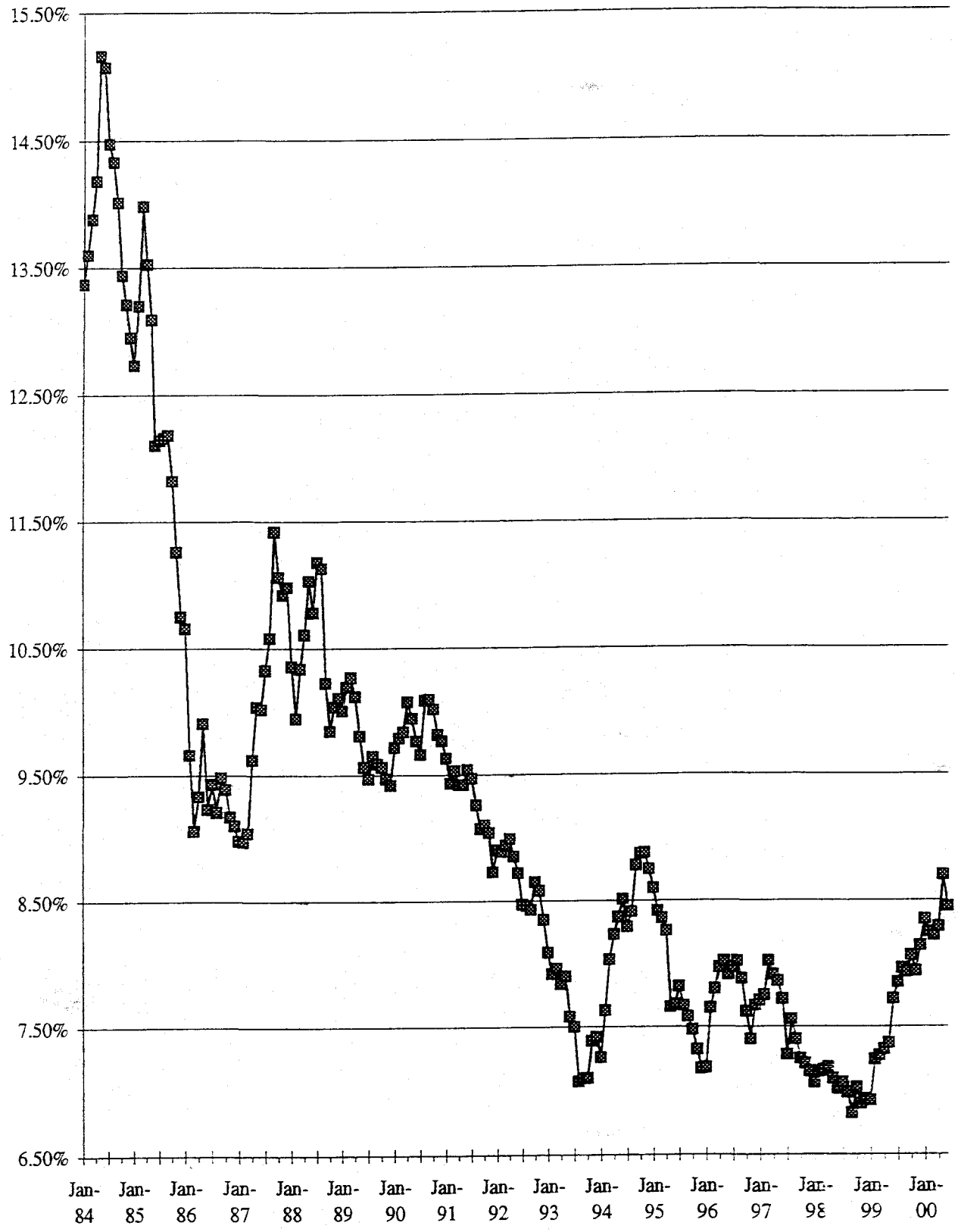
[1] Fama and French postulate that firm size and book-to-market ratio effectively proxy the risk-return characteristics of earnings-price ratios and sales growth, the latter having been determined to have more explanatory power with regard to relative risk and return than beta alone.

> will arise in estimating risk loadings for individual firms and investment projects.
>
> The second problem is imprecise estimates of factor risk premiums. For example, the price of risk in the CAPM is the expected return on the market portfolio minus the risk-free interest rate, $E(R_M)-R_f$. The annualized average excess return on the Center for Research in Security Prices (CSRP) value-weighted market portfolio of NYSE, AMEX and NASDAQ stocks for our 1963-1994 sample period is 5.16%; its standard error is 2.71%. Thus, if we use the historical market premium to estimate the expected premium, the traditional plus-and-minus-two-standard-error interval ranges from less than zero to more than 10.0%.
>
> Our message is that uncertainty of this magnitude about risk premiums, coupled with the uncertainty about risk loadings, implies woefully imprecise estimates of the cost of equity." (Fama, French, "Industry Costs of Equity," Center for Research in Security Prices at the University of Chicago Graduate School of Business (First Draft March 1994, Revised October 1996), pp. 1-2)

While this recently published conclusion as to the imprecision of equity cost estimates produced by CAPM-type models does not negate the risk/return basis of asset pricing, it does definitely call for a more accurate measure other than beta (or other risk indicators) with which asset returns can be more reliably indexed. However, unless and until such an index is published and widely accepted in the marketplace, CAPM cost of equity capital estimates should be relegated to a supporting role or informational status. Therefore, for the reasons set out above, I use the CAPM for informational purposes and do not rely on that methodology as a primary equity capital cost estimation technique, and I recommend that the Commission adopt a similar view toward the CAPM cost of equity capital estimates presented in this proceeding.

US WEST COMMUNICATIONS

Moody's A-Rated Utility Bond Yields

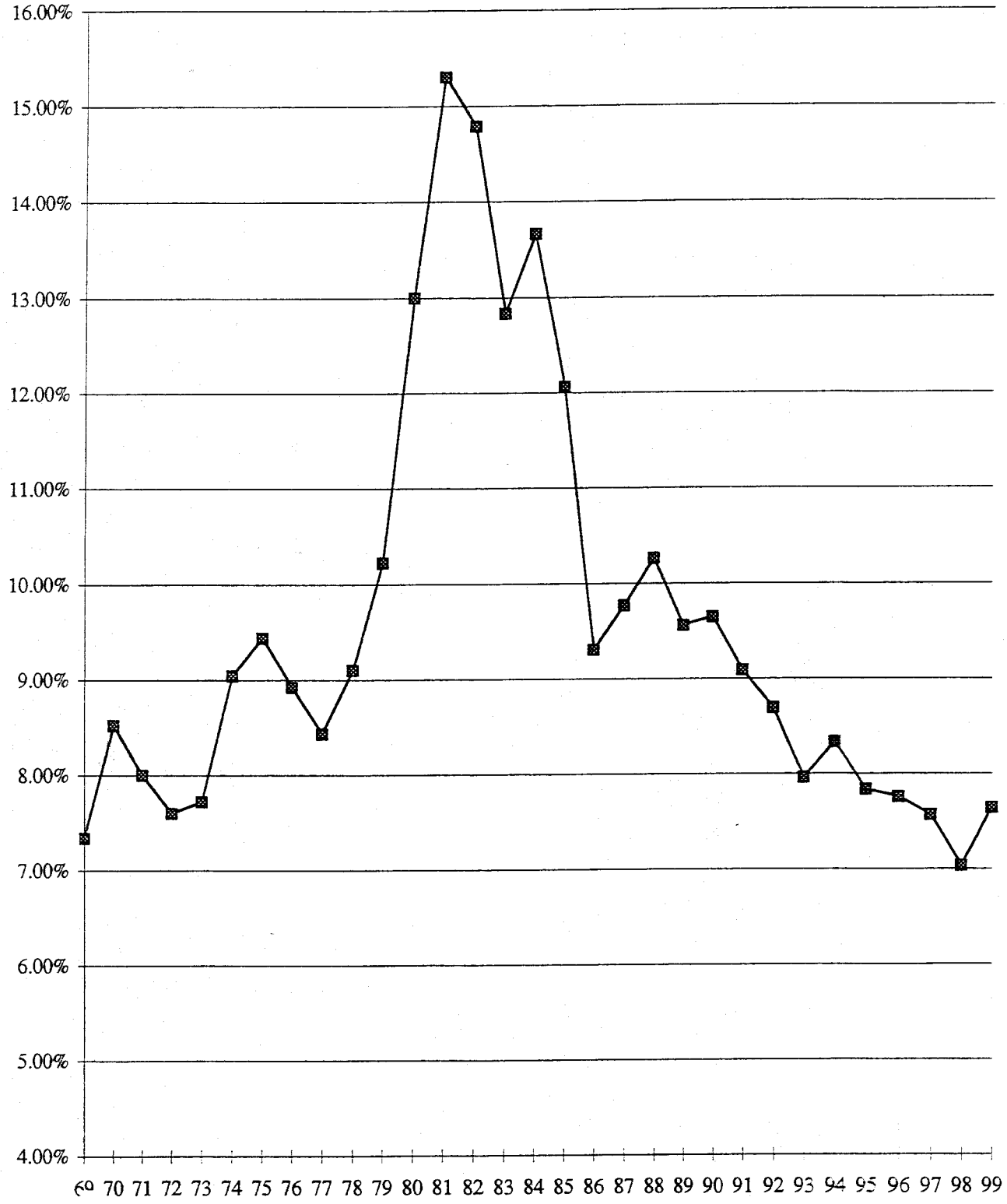


All data from CompuServe and Moody's Investor Service Website, Economic Commentary.

US WEST COMMUNICATIONS

Moody's A-rated Utility Bond Yields

1969-1999



All data from CompuServe and Moody's Public Utility Reports.

US WEST COMMUNICATIONS
CAPITAL STRUCTURE

CONSOLIDATED OPERATIONS

AMOUNT (000,000)

Type of Capital	1995	1996	1997	1998	1999	5-YEAR AVERAGE
Common Equity	$3,675	$4,085	$4,367	$755	$1,255	$2,827
Long-term Debt	$5,691	$5,665	$5,020	$8,642	$10,189	$7,041
TOTALS	$9,366	$9,750	$9,387	$9,397	$11,444	$9,869

PERCENTAGE

Type of Capital	1995	1996	1997	1998	1999	5-YEAR AVERAGE
Common Equity	39.24%	41.90%	46.52%	8.03%	10.97%	29.33%
Long-term Debt	60.76%	58.10%	53.48%	91.97%	89.03%	70.67%
TOTALS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TELEPHONE OPERATIONS

AMOUNT (000,000)

Type of Capital	1995	1996	1997	1998	1999	5-YEAR AVERAGE
Common Equity	$3,746	$4,060	$4,400	$4,463	$4,720	$4,278
Long-term Debt	$5,411	$5,375	$5,019	$5,154	$5,408	$5,273
Short-term Debt	$995	$834	$497	$789	$1,684	$960
TOTALS	$10,152	$10,269	$9,916	$10,406	$11,812	$10,511

PERCENTAGE

Type of Capital	1995	1996	1997	1998	1999	5-YEAR AVERAGE
Common Equity	36.90%	39.54%	44.37%	42.89%	39.96%	40.73%
Long-term Debt	53.30%	52.34%	50.62%	49.53%	45.78%	50.31%
Short-term Debt	9.80%	8.12%	5.01%	7.58%	14.26%	8.95%
TOTALS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Data from US WEST 1998 Investor Handbook and 1/26/00 S.E.C. Form 8-K.

US WEST COMMUNICATIONS

CAPITAL STRUCTURE OF TELECOMMUNICATIONS HOLDING COMPANIES

COMPANY	COMMON EQUITY	PREFERRED STOCK	LONG-TERM DEBT	SHORT-TERM DEBT
1 Bell Atlantic	43.23%	0.00%	47.78%	8.99%
2 Bell South	46.90%	0.00%	27.78%	25.32%
3 GTE Corp.	31.53%	0.00%	40.62%	27.85%
4 SBC Corp.	54.99%	2.06%	36.01%	6.94%
5 US WEST	8.79%	0.00%	71.10%	20.11%
AVERAGE	**37.09%**	**0.41%**	**44.66%**	**17.84%**
AVERAGE W/O USW	**44.16%**	**0.52%**	**38.05%**	**17.28%**

Data from Value Line Ratings & Reports, April 7, 2000.

US WEST COMMUNICATIONS

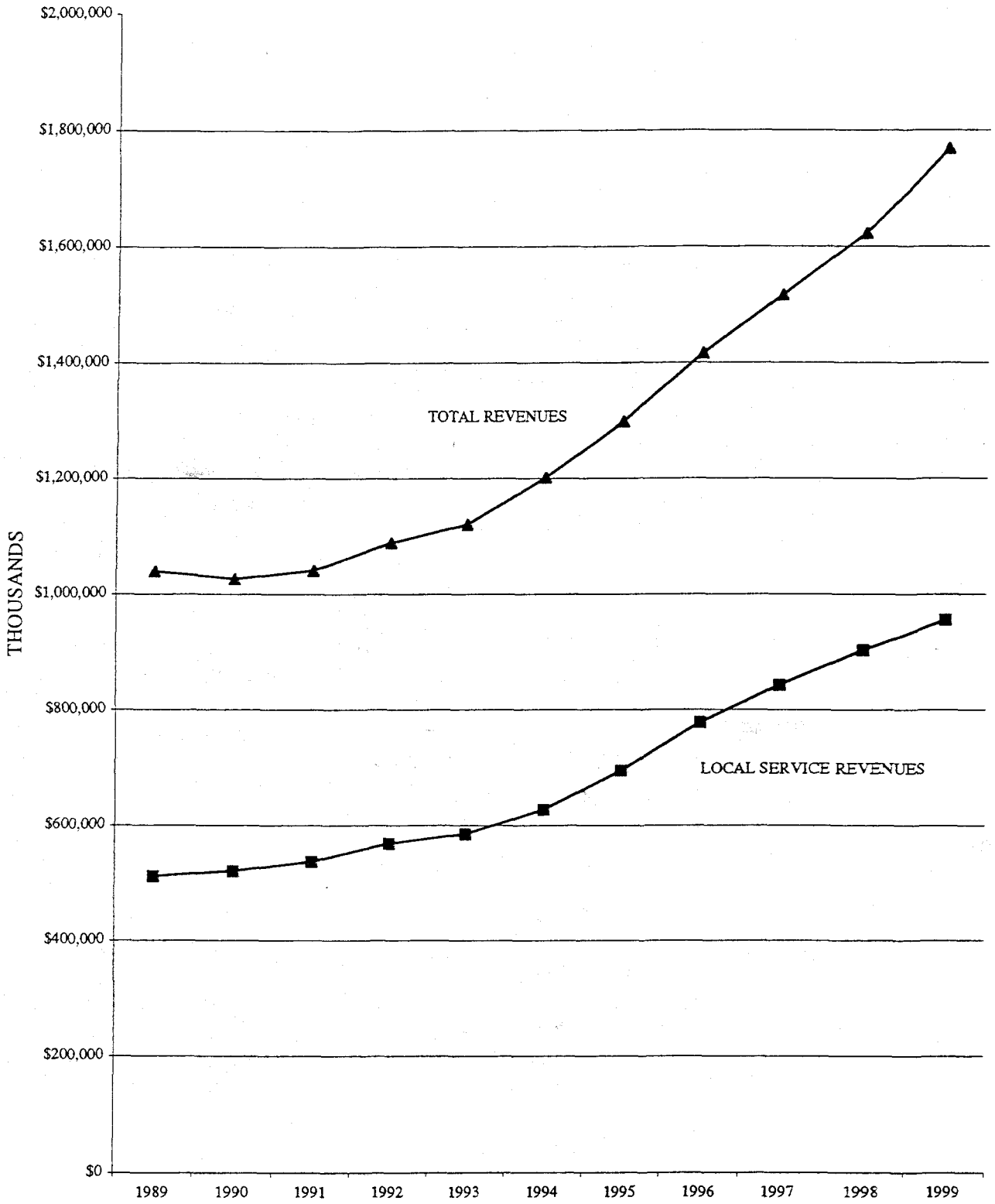
RATEMAKING CAPITAL STRUCTURE

TYPE OF CAPITAL	AMOUNT	PERCENT OF TOTAL	COST RATE†	WT. AVG. COST RATE
Common Equity	$1,015,260	52.43%	-	-
Total Debt	$920,981	47.57%	7.39%	3.52%
TOTALS	$1,936,241	100.00%		

† Cost rates from USW Exhibit PCC-02 (May 3, 2000).

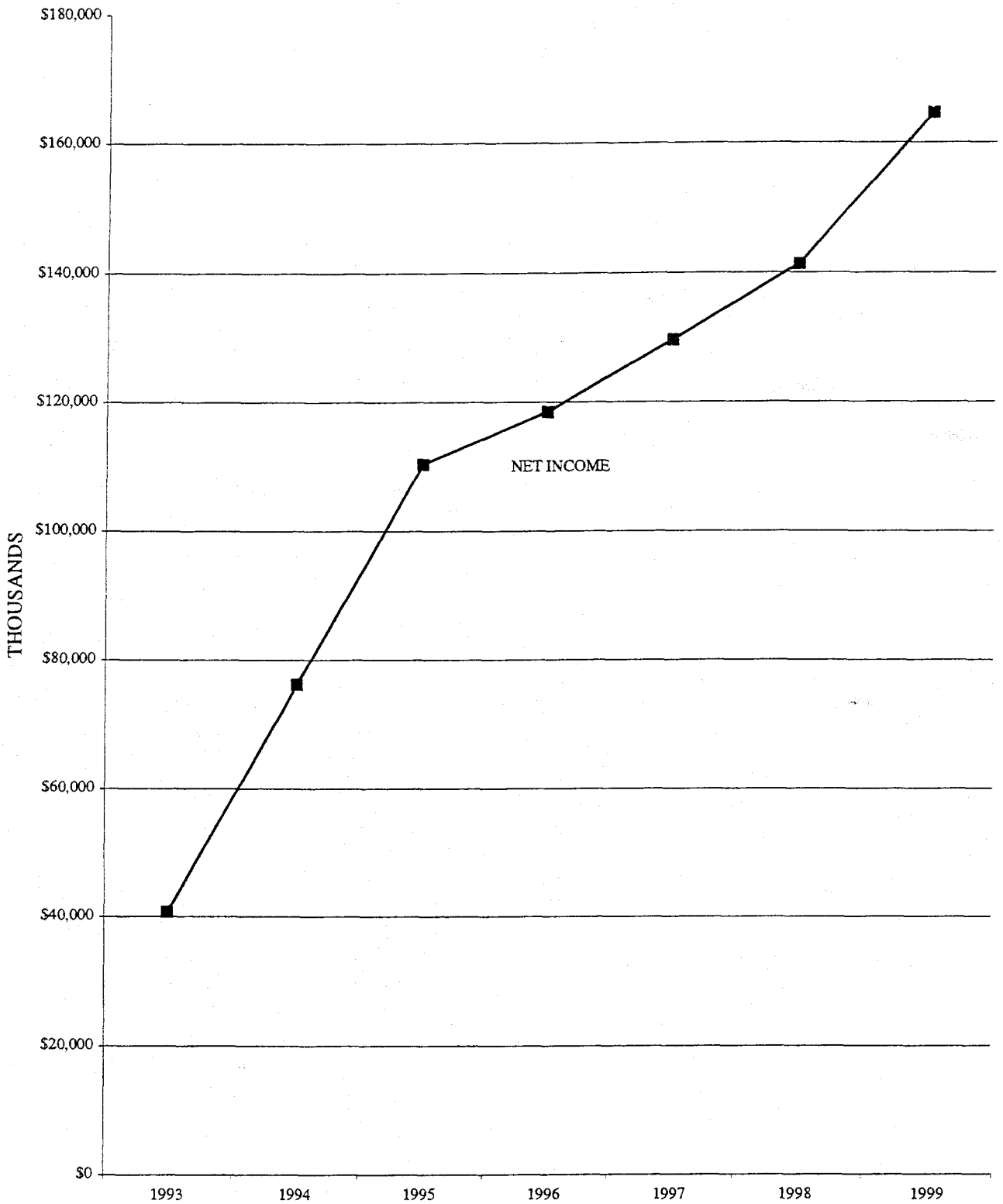
US WEST COMMUNICATIONS

ARIZONA JURISDICTIONAL REVENUES



Data from Company response to SGH01-11.

US WEST COMMUNICATIONS
ARIZONA JURISDICTIONAL NET INCOME



Data from Company response to SGH01-11.

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
TELECOMMUNICATIONS COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
BEL	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.2784	25.4%	7.07%	7.63	875.53	
1996	0.2778	23.4%	6.50%	8.48	875.63	
1997	0.3992	29.0%	11.58%	8.24	1553.00	
1998	0.4338	32.5%	14.10%	8.39	1553.30	
1999	0.4884	30.5%	14.90%	9.80	1553.00	
AVERAGE GROWTH			10.83%	-2.50%		15.41%
2000	0.5224	29.0%	15.15%		1540.00	-0.84%
2001	0.5452	29.0%	15.81%		1525.00	-0.91%
2003-2005	0.6206	26.0%	16.14%	13.00%	1495.00	-0.76%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
BLS	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.3661	18.8%	6.88%	5.95	1988.00	
1996	0.4331	19.0%	8.23%	6.68	1982.00	
1997	0.4894	18.4%	9.00%	7.64	1984.00	
1998	0.5576	20.2%	11.26%	8.26	1950.00	
1999	0.6200	25.8%	16.00%	7.86	1883.00	
AVERAGE GROWTH			10.27%	2.00%		-1.35%
2000	0.6545	26.0%	17.02%		1883.00	0.00%
2001	0.6800	26.0%	17.68%		1883.00	0.00%
2003-2005	0.7634	26.0%	19.85%	9.50%	1883.00	0.00%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
GTE	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.2797	36.8%	10.29%	7.05	975.06	
1996	0.3472	38.0%	13.19%	7.62	963.10	
1997	0.3793	34.8%	13.20%	8.39	958.00	
1998	0.3876	28.4%	11.01%	9.06	968.00	
1999	0.4613	31.5%	14.53%	11.10	974.00	
AVERAGE GROWTH			12.45%	-5.00%		-0.03%
2000	0.5117	30.5%	15.61%		975.00	0.10%
2001	0.5586	28.5%	15.92%		975.00	0.05%
2003-2005	0.6746	23.5%	15.85%	17.00%	975.00	0.02%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
TELECOMMUNICATIONS COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
SBC	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.4645	30.2%	14.03%	5.13	1218.70	
1996	0.5029	30.7%	15.44%	5.70	1199.70	
1997	0.5109	34.0%	17.37%	5.38	1837.30	
1998	0.5481	32.2%	17.65%	6.52	1959.30	
1999	0.5488	27.8%	15.26%	7.87	3395.40	
AVERAGE GROWTH			15.95%	-1.00%		29.20%
2000	0.5739	25.5%	14.63%		3400.00	0.14%
2001	0.6077	24.5%	14.89%		3400.00	0.07%
2003-2005	0.6595	21.5%	14.18%	17.50%	3400.00	0.03%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
USW	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.0894	31.8%	2.84%	7.34	473.64	
1996	0.1230	29.7%	3.65%	8.15	480.46	
1997	0.1673	25.0%	4.18%	8.66	485.06	
1998	0.2914	NMF	NMF	1.50	502.90	
1999	0.3456	NMF	NMF	2.48	505.70	
AVERAGE GROWTH			3.56%	-		1.65%
2000	0.3706	NMF	NMF		506.00	0.06%
2001	0.4137	NMF	NMF		507.00	0.13%
2003-2005	0.6492	41.0%	26.62%	23.50%	510.00	0.17%

Data from Value Line, Ratings & Reports, April 7, 2000.

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
INSURANCE COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
BKLY	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.8325	06.5%	5.41%	23.50	30.25	
1996	0.8633	10.3%	8.89%	25.13	29.45	
1997	0.8467	10.5%	8.89%	28.72	29.57	
1998	0.7330	06.8%	4.98%	28.79	26.50	
1999	1.5714	NMF	NMF	23.10	25.60	
AVERAGE GROWTH			7.04%	9.00%		-4.09%
2000	0.5840	04.5%	2.63%		24.75	-3.32%
2001	0.6267	05.5%	3.45%		24.00	-0.50%
2003-2005	0.7778	08.5%	6.61%	2.00%	24.00	-1.28%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
CB	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.7506	13.2%	9.91%	30.17	174.42	
1996	0.6087	08.9%	5.42%	31.24	174.86	
1997	0.7358	13.6%	10.01%	33.64	168.72	
1998	0.7041	12.5%	8.80%	34.78	162.27	
1999	0.6339	09.9%	6.28%	35.74	176.21	
AVERAGE GROWTH			8.08%	8.50%		0.26%
2000	0.6267	10.0%	6.27%		170.00	-3.52%
2001	0.5944	09.0%	5.35%		170.00	-1.78%
2003-2005	0.6818	10.0%	6.82%	9.00%	160.00	-1.91%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
CINF	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.6767	08.5%	5.75%	15.91	167.13	
1996	0.6260	07.0%	4.38%	19.02	166.91	
1997	0.6893	06.3%	4.34%	28.30	166.69	
1998	0.5960	04.3%	2.56%	33.72	168.68	
1999	0.5526	04.7%	2.60%	33.46	162.02	
AVERAGE GROWTH			3.93%	21.50%		-0.77%
2000	0.5778	04.5%	2.60%		158.50	-2.17%
2001	0.5579	05.0%	2.79%		155.00	-2.19%
2003-2005	0.5789	07.0%	4.05%	15.00%	150.00	-1.53%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
INSURANCE COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
OCAS	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.4328	08.6%	3.72%	15.69	70.79	
1996	0.4203	08.3%	3.49%	16.72	70.28	
1997	0.5602	09.9%	5.55%	19.55	67.24	
1998	0.3623	07.0%	2.54%	21.12	62.54	
1999	0.4682	09.2%	4.31%	19.16	60.08	
AVERAGE GROWTH			3.92%	11.00%		-4.02%
2000	-0.3143	04.0%	-1.26%		60.00	-0.13%
2001	0.0800	05.5%	0.44%		60.00	-0.07%
2003-2005	0.5840	11.5%	6.72%	1.50%	60.00	-0.03%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
SAFC	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.6782	10.0%	6.78%	31.61	125.98	
1996	0.6810	10.7%	7.29%	32.58	126.31	
1997	0.6639	07.6%	5.05%	44.63	141.20	
1998	0.4683	05.5%	2.58%	40.9	136.30	
1999	0.2356	05.4%	1.27%	33.5	128.90	
AVERAGE GROWTH			4.59%	15.00%		0.57%
2000	0.0000	05.0%	0.00%		127.00	-1.47%
2001	0.2300	05.0%	1.15%		125.00	-1.52%
2003-2005	0.4776	08.5%	4.06%	4.50%	120.00	-1.42%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
SPC	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.7218	14.0%	10.11%	22.11	168.18	
1996	0.7115	13.9%	9.89%	23.97	166.40	
1997	0.7572	16.7%	12.64%	27.53	167.46	
1998	0.5619	06.8%	3.82%	30.48	233.75	
1999	0.6916	11.5%	7.95%	28.68	224.80	
AVERAGE GROWTH			8.88%	12.50%		7.52%
2000	0.6109	09.0%	5.50%		220.00	-2.14%
2001	0.6300	09.0%	5.67%		215.00	-2.20%
2003-2005	0.6925	10.5%	7.27%	5.00%	205.00	-1.83%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
INSURANCE COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
SIGI	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.6906	12.1%	8.36%	15.15	28.83	
1996	0.6989	11.7%	8.18%	16.31	29.09	
1997	0.7533	12.3%	9.27%	19.16	29.51	
1998	0.6782	08.8%	5.97%	21.30	28.52	
1999	0.6828	09.4%	6.42%	21.46	26.56	
AVERAGE GROWTH			7.64%	11.00%		-2.03%
2000	0.6250	07.5%	4.69%		26.00	-2.11%
2001	0.6343	08.0%	5.07%		26.00	-1.06%
2003-2005	0.7382	10.0%	7.38%	6.50%	26.00	-0.43%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
TRH	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.9269	13.3%	12.33%	28.72	34.42	
1996	0.9287	13.6%	12.63%	32.95	34.52	
1997	0.9274	13.7%	12.71%	38.36	35.36	
1998	0.9399	15.4%	14.47%	46.45	34.67	
1999	0.9148	11.6%	10.61%	47.3	34.80	
AVERAGE GROWTH			12.55%	17.50%		0.27%
2000	0.9113	11.0%	10.02%		34.80	0.00%
2001	0.9083	11.0%	9.99%		34.80	0.00%
2003-2005	0.9211	12.0%	11.05%	14.00%	35.00	0.11%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
AIG	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.9365	12.4%	11.61%	9.91	2000.50	
1996	0.9384	12.9%	12.10%	11.13	1980.50	
1997	0.9408	13.7%	12.89%	12.2	1967.40	
1998	0.9372	13.7%	12.84%	13.78	1968.20	
1999	0.9404	14.7%	13.82%	14.42	2323.70	
AVERAGE GROWTH			12.65%	13.00%		3.82%
2000	0.9388	15.3%	14.36%		2325.00	0.06%
2001	0.9404	15.5%	14.58%		2325.00	0.03%
2003-2005	0.9375	14.5%	13.59%	12.00%	2400.00	0.65%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
INSURANCE COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
UNIT	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1995	0.4652	09.9%	4.61%	19.80	76.98	
1996	0.3750	09.0%	3.38%	19.82	74.68	
1997	0.4059	09.9%	4.02%	20.39	75.17	
1998	0.3367	08.4%	2.83%	23.99	75.98	
1999	0.2784	08.5%	2.37%	24.19	70.99	
AVERAGE GROWTH			3.44%	3.50%		-2.00%
2000	0.1176	07.5%	0.88%		69.00	-2.80%
2001	0.2889	09.5%	2.74%		68.00	-2.13%
2003-2005	0.3333	11.0%	3.67%	3.00%	66.00	-1.45%

Data from Value Line Ratings & Reports, March 31 and June 2, 2000.

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
GAS DISTRIBUTION COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
ATG	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.2180	12.5%	2.73%	10.12	55.02	
1995	0.2263	12.1%	2.74%	10.56	55.70	
1996	0.2117	11.3%	2.39%	10.99	56.60	
1997	0.2340	11.3%	2.64%	11.42	57.30	
1998	-0.1868	07.9%	-1.48%	11.59	57.10	
AVERAGE GROWTH			1.80%	2.50%		0.93%
1999	0.0609	10.0%	0.61%		56.70	-0.70%
2000	0.1360	10.5%	1.43%		56.70	-0.50%
2002-2004	0.3030	12.5%	3.79%	3.00%	57.00	-0.04%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
ATO	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.2459	11.9%	2.93%	10.2	15.52	
1995	0.3642	13.9%	5.06%	10.75	16.02	
1996	0.2463	12.0%	2.96%	11.04	29.64	
1997	0.4239	14.9%	6.32%	12.21	30.40	
1998	-0.3580	06.6%	-2.36%	12.09	31.25	
AVERAGE GROWTH			2.98%	4.50%		19.12%
1999	-0.2667	07.5%	-2.00%		32.00	2.40%
2000	0.3444	14.5%	4.99%		32.70	2.29%
2002-2004	0.4375	15.5%	6.78%	4.50%	36.50	3.15%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
CGC	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	-0.2000	08.1%	-1.62%	9.76	9.14	
1995	-0.8462	03.5%	-2.96%	10.09	10.79	
1996	-0.0323	09.1%	-0.29%	10.16	10.97	
1997	-0.1429	08.3%	-1.19%	10.07	11.05	
1998	0.2258	12.0%	2.71%	10.36	11.05	
AVERAGE GROWTH			-0.67%	1.00%		4.86%
1999	0.2615	12.5%	3.27%		11.05	0.00%
2000	0.3071	13.0%	3.99%		11.05	0.00%
2002-2004	0.4118	13.0%	5.35%	4.00%	12.00	1.66%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
GAS DISTRIBUTION COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
NJR	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.2124	13.1%	2.78%	14.55	17.79	
1995	0.2476	13.5%	3.34%	15.15	18.08	
1996	0.2793	14.3%	3.99%	15.57	17.88	
1997	0.2961	14.4%	4.26%	16.33	17.81	
1998	0.3253	14.8%	4.81%	17.03	17.74	
AVERAGE GROWTH			3.84%	2.50%		-0.07%
1999	0.3509	15.0%	5.26%		17.50	-1.35%
2000	0.3825	15.5%	5.93%		17.25	-1.39%
2002-2004	0.4865	16.0%	7.78%	6.00%	17.25	-0.56%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
NWNG	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.2671	10.9%	2.91%	14.55	22.24	
1995	0.3909	12.7%	4.96%	15.37	22.56	
1996	0.3125	11.0%	3.44%	16.02	22.86	
1997	-0.1961	06.0%	-1.18%	16.59	24.85	
1998	0.2765	10.0%	2.76%	17.35	24.95	
AVERAGE GROWTH			2.58%	5.00%		2.92%
1999	0.3111	10.0%	3.11%		25.25	1.20%
2000	0.3421	10.0%	3.42%		25.60	1.29%
2002-2004	0.4348	10.5%	4.57%	4.50%	27.00	1.59%

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
PNY	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.2483	11.4%	2.83%	12.31	28.84	
1995	0.3114	12.6%	3.92%	13.07	29.55	
1996	0.3459	13.1%	4.53%	13.9	30.19	
1997	0.3469	13.2%	4.58%	14.91	30.74	
1998	0.2688	11.8%	3.17%	15.71	31.30	
AVERAGE GROWTH			3.81%	6.50%		2.07%
1999	0.3048	12.5%	3.81%		31.50	0.64%
2000	0.3333	12.5%	4.17%		31.75	0.72%
2002-2004	0.4036	13.0%	5.25%	6.50%	33.00	1.06%

US WEST COMMUNICATIONS
DCF GROWTH RATE PARAMETERS
GAS DISTRIBUTION COMPANIES

COMPANY	INTERNAL GROWTH				EXTERNAL GROWTH	
SJI	RETENTION RATIO	EQUITY RETURN	"g"	BOOK VALUE ($/SHARE)	SHARES OUTST (MILLIONS)	SHARE GROWTH
1994	0.1273	11.2%	1.43%	14.67	10.72	
1995	0.1529	10.6%	1.62%	16.06	10.76	
1996	0.1579	10.6%	1.67%	16.11	10.77	
1997	-0.1250	08.2%	-1.03%	15.7	10.78	
1998	0.2836	11.5%	3.26%	17	11.20	
AVERAGE GROWTH			1.39%	3.00%		1.10%
1999	0.3209	11.5%	3.69%		11.55	3.13%
2000	0.3422	11.5%	3.94%		12.00	3.51%
2002-2004	0.3846	11.5%	4.42%	4.00%	13.00	3.03%

Data from Value Line Ratings & Reports, March 24, 2000.

US WEST COMMUNICATIONS

DCF GROWTH RATES
TELECOMMUNICATIONS COMPANIES

COMPANY	br	+	sv=g*(M/B-1)			=	g
BEL	10.50%	+	-0.25%	(4.31	- 1)	=	10.09%
BLS	10.50%	+	-0.25%	(4.89	- 1)	=	10.01%
GTE	11.25%	+	0.00%	(4.19	- 1)	=	11.25%
SBC	11.00%	+	0.00%	(4.05	- 1)	=	11.00%
USW	8.25%	+	0.00%	(13.56	- 1)	=	8.25%

Average Market-to-Book Ratio† = 4.36

BEL	=	Bell Atlantic
BLS	=	Bell South
GTE	=	GTE Corp.
SBC	=	SBC Communications Inc.
USW	=	US WEST, Inc

† excludes consideration of USW's market-to-book ratio
g*= expected growth in number of shares outstanding

US WEST COMMUNICATIONS

GROWTH RATE COMPARISON
TELECOMMUNICATIONS COMPANIES

		Value Line Projected			Analysts'	Value Line Historic			Analysts' & VL	5-yr Compound Hist.		
COMPANY	br + sv	EPS	DPS	BVPS	EPS	EPS	DPS	BVPS	AVGS.	EPS	DPS	BVPS
BEL	10.09%	11.00%	3.00%	13.00%	11.39%	7.50%	2.50%	-2.50%	6.56%	11.54%	2.71%	7.59%
BLS	10.01%	13.00%	2.50%	9.50%	11.38%	11.50%	1.00%	2.00%	7.27%	14.46%	1.37%	7.39%
GTE	11.25%	11.50%	0.50%	17.00%	11.90%	6.50%	1.00%	-5.00%	6.20%	8.08%	0.00%	12.76%
SBC	11.00%	11.50%	5.50%	17.50%	12.99%	10.50%	4.00%	-1.00%	8.71%	8.21%	3.38%	12.51%
USW	8.25%	13.00%	0.00%	23.50%	7.12%	-	-	-	10.91%	7.67%	0.00%	-12.57%
		12.00%	2.30%	16.10%		9.00%	2.13%	-1.63%		9.99%	1.49%	5.54%
AVERAGES	10.12%		10.13%		10.96%		3.17%		7.93%		5.67%	

US WEST COMMUNICATIONS

DCF GROWTH RATES
INSURANCE COMPANIES

COMPANY	br	+	sv=g*(M/B-1)			=	g
BKLY	7.00%	+	-1.50%	(0.88	- 1)	=	7.18%
CB	8.00%	+	-0.25%	(1.73	- 1)	=	7.82%
CINF	10.75%	+	-1.00%	(1.12	- 1)	=	10.63%
OCAS	7.75%	+	-0.25%	(0.71	- 1)	=	7.82%
SAFC	9.00%	+	-0.25%	(0.68	- 1)	=	9.08%
SPC	8.25%	+	0.00%	(1.21	- 1)	=	8.25%
SIGI	8.25%	+	-0.75%	(0.86	- 1)	=	8.35%
TRH	10.75%	+	0.15%	(1.60	- 1)	=	10.84%
AIG	13.00%	+	0.50%	(7.22	- 1)	=	16.11%
UNIT	7.75%	+	-1.50%	(1.35	- 1)	=	7.23%

Average Market-to-Book Ratio = 1.73

BKLY	=	W. R. Berkley Corp.
CB	=	Chubb Corporation
CINF	=	Cincinnati Financial Corp.
OCAS	=	Ohio Casualty Corp.
SAFC	=	SAFECO Corporation
SPC	=	St. Paul Companies, Inc.
SIGI	=	Selective Insurance Group, Inc.
TRH	=	Transatlantic Holdings Inc.
AIG	=	Amer International Group, Inc.
UNIT	=	Unitrin

g*= expected growth in number of shares outstanding

US WEST COMMUNICATIONS

GROWTH RATE COMPARISON
INSURANCE COMPANIES

		Value Line Projected			Analyst's	Value Line Historic			Analyst's & VL	5-yr Compound Hist.		
COMPANY	br + sv	EPS	DPS	BVPS	EPS	EPS	DPS	BVPS	AVGS.	EPS	DPS	BVPS
BKLY	7.18%	2.00%	5.50%	2.00%	14.00%	5.50%	11.50%	9.00%	7.07%	-8.13%	10.20%	0.96%
CB	7.82%	6.50%	7.00%	9.00%	11.78%	6.00%	8.00%	8.50%	8.11%	-0.93%	7.39%	4.78%
CINF	10.63%	11.50%	10.50%	15.00%	10.00%	7.50%	12.50%	21.50%	12.64%	6.24%	12.06%	17.51%
OCAS	7.82%	7.00%	3.00%	1.50%	10.00%	3.00%	4.50%	11.00%	5.71%	-12.18%	3.90%	3.68%
SAFC	9.08%	7.00%	12.50%	4.50%	9.38%	4.00%	9.00%	15.00%	8.77%	-13.90%	8.02%	1.20%
SPC	8.25%	4.00%	4.00%	5.00%	10.07%	11.50%	7.00%	12.50%	7.72%	-0.64%	6.26%	6.51%
SIGI	8.35%	5.00%	3.50%	6.50%	9.00%	15.00%	0.50%	11.00%	7.21%	-2.44%	1.39%	7.75%
TRH	10.84%	9.00%	12.00%	14.00%	9.00%	20.50%	15.50%	17.50%	13.93%	8.47%	12.74%	13.42%
AIG	16.11%	13.00%	13.50%	12.00%	14.30%	15.00%	13.50%	13.00%	13.47%	14.22%	13.40%	10.05%
UNIT	7.23%	10.50%	6.50%	3.00%	n/a	8.50%	15.00%	3.50%	7.83%	-1.89%	8.45%	4.01%
		7.55%	7.80%	7.25%		9.65%	9.70%	12.25%		-1.12%	8.38%	6.99%
AVERAGES	9.33%		7.53%		10.84%		10.53%		9.25%		4.75%	

US WEST COMMUNICATIONS

DCF GROWTH RATES
GAS DISTRIBUTION COMPANIES

COMPANY	br	+	sv=g*((M/B+1)/2-1)			=	g
ATG	3.75%	+	0.25%	((1.39	+ 1)/2-1)	=	3.80%
ATO	5.50%	+	2.50%	((1.39	+ 1)/2-1)	=	5.99%
CGC	4.00%	+	1.75%	((1.64	+ 1)/2-1)	=	4.56%
NJR	6.50%	+	-0.25%	((2.25	+ 1)/2-1)	=	6.34%
NWNG	4.50%	+	2.50%	((1.19	+ 1)/2-1)	=	4.74%
PNY	5.25%	+	1.50%	((1.72	+ 1)/2-1)	=	5.79%
SJI	4.50%	+	2.00%	((1.44	+ 1)/2-1)	=	4.94%

Average Market-to-Book Ratio = 1.57

ATG	=	AGL Resources
ATO	=	Atmos Energy Corporation
CGC	=	Cascade Natural Gas Corporation
NJR	=	NUI Corp.
NWNG	=	New Jersey Resources Corp.
PNY	=	Northwest Natural Gas Co.
SJI	=	Piedmont Natual Gas Company
0.00%	=	South Jersey Industries, Inc.

g*= expected growth in number of shares outstanding

US WEST COMMUNICATIONS

GROWTH RATE COMPARISON
GAS DISTRIBUTION COMPANIES

		Value Line Projected			Analyst's	Value Line Historic			Analyst's & VL	5-yr Compound Hist.		
COMPANY	br + sv	EPS	DPS	BVPS	EPS	EPS	DPS	BVPS	AVGS.	EPS	DPS	BVPS
ATG	3.80%	5.00%	1.00%	3.00%	5.37%	2.00%	1.00%	2.50%	2.84%	-2.87%	0.76%	3.47%
ATO	5.99%	10.50%	4.00%	4.50%	7.33%	5.00%	4.50%	4.50%	5.76%	-5.90%	4.38%	3.13%
CGC	4.56%	9.50%	0.50%	4.00%	4.67%	5.50%	0.50%	1.00%	3.67%	10.20%	0.00%	1.18%
NJR	6.34%	8.00%	2.50%	6.00%	6.63%	6.00%	1.50%	2.50%	4.73%	6.55%	2.50%	3.94%
NWNG	4.74%	5.50%	1.00%	4.50%	4.02%	8.50%	1.00%	5.00%	4.22%	2.26%	1.00%	4.35%
PNY	5.79%	7.00%	4.50%	6.50%	5.57%	6.00%	6.00%	6.50%	6.01%	7.69%	6.02%	6.35%
SJI	4.94%	7.50%	1.50%	4.00%	5.25%	1.00%	0.50%	3.00%	3.25%	5.44%	0.28%	4.29%
		7.57%	2.14%	4.64%		4.86%	2.14%	3.57%		3.34%	2.13%	3.82%
AVERAGES	5.17%		4.79%		5.55%		3.52%		4.35%		3.10%	

US WEST COMMUNICATIONS

STOCK PRICE, DIVIDENDS, YIELDS
TELECOMMUNICATIONS COMPANIES

COMPANY	AVG. STOCK PRICE 5/1/00-6/8/00 (PER SHARE)		ANNUALIZED DIVIDEND (PER SHARE)	DIVIDEND YIELD
BEL	$53.66	*	$1.70	3.16%
BLS	$46.73		$0.76	1.63%
GTE	$63.69		$1.88	2.95%
SBC	$43.92		$1.02	2.31%
USW	$73.23		$2.14	2.92%
			AVERAGE	**2.59%**

*Dividend increase expected in next quarter. Current dividend multiplied by (1+g), derived in Schedule 4.

US WEST COMMUNICATIONS

STOCK PRICE, DIVIDENDS, YIELDS
INSURANCE COMPANIES

COMPANY	AVG. STOCK PRICE 5/1/00-6/8/00 (PER SHARE)		ANNUALIZED DIVIDEND (PER SHARE)	DIVIDEND YIELD
BKLY	$21.63		$0.52	2.40%
CB	$65.90		$1.32	2.00%
CINF	$39.75		$0.76	1.91%
OCAS	$13.32		$0.92	6.91%
SAFC	$22.73	*	$1.55	6.81%
SPC	$36.63		$1.08	2.95%
SIGI	$18.99		$0.60	3.16%
TRH	$86.04		$0.50	0.58%
AIG	$115.45		$0.14	0.12%
UNIT	$32.47		$1.50	4.62%
			AVERAGE	**3.15%**

*Dividend increased by (1+g).

US WEST COMMUNICATIONS

STOCK PRICE, DIVIDENDS, YIELDS
GAS DISTRIBUTION COMPANIES

COMPANY	AVG. STOCK PRICE 5/1/00-6/8/00 (PER SHARE)	ANNUALIZED DIVIDEND (PER SHARE)	DIVIDEND YIELD
ATG	$16.64	$1.08	6.49%
ATO	$16.53	$1.14	6.90%
CGC	$16.95	$0.96	5.66%
NJR	$39.70	$1.72	4.33%
NWNG	$21.44	$1.24	5.78%
PNY	$28.89	$1.46	5.05%
SJI	$26.00	$1.46	5.61%
		AVERAGE	**5.69%**

US WEST COMMUNICATIONS

DCF COST OF EQUITY CAPITAL
TELECOMMUNICATIONS COMPANIES

COMPANY	DIVIDEND YIELD Schedule 6	GROWTH RATE Schedule 5	DCF COST OF EQUITY CAPITAL
BEL	3.16%	10.09%	13.25%
BLS	1.63%	10.01%	11.64%
GTE	2.95%	11.25%	14.20%
SBC	2.31%	11.00%	13.31%
USW	2.92%	8.25%	11.17%
		AVERAGE	**12.71%**
		STANDARD DEVIATION	**1.26%**

US WEST COMMUNICATIONS

DCF COST OF EQUITY CAPITAL
INSURANCE COMPANIES

COMPANY	DIVIDEND YIELD Schedule 6	GROWTH RATE Schedule 5	DCF COST OF EQUITY CAPITAL
BKLY	2.40%	7.18%	9.59%
CB	2.00%	7.82%	9.82%
CINF	1.91%	10.63%	12.55%
OCAS	6.91%	7.82%	14.73%
SAFC	6.81%	9.08%	15.89%
SPC	2.95%	8.25%	11.20%
SIGI	3.16%	8.35%	11.51%
TRH	0.58%	10.84%	11.42%
AIG	0.12%	16.11%	16.23%
UNIT	4.62%	7.23%	11.85%
		AVERAGE	**12.48%**
		STANDARD DEVIATION	**2.36%**

US WEST COMMUNICATIONS

DCF COST OF EQUITY CAPITAL
GAS DISTRIBUTION COMPANIES

COMPANY	DIVIDEND YIELD Schedule 6	GROWTH RATE Schedule 5	DCF COST OF EQUITY CAPITAL
ATG	6.49%	3.80%	10.29%
ATO	6.90%	5.99%	12.88%
CGC	5.66%	4.56%	10.22%
NJR	4.33%	6.34%	10.68%
NWNG	5.78%	4.74%	10.52%
PNY	5.05%	5.79%	10.85%
SJI	5.61%	4.94%	10.55%
		AVERAGE	**10.86%**
		STANDARD DEVIATION	**0.92%**

US WEST COMMUNICATIONS

CAPM COST OF EQUITY CAPITAL
TELECOMMUNICATIONS COMPANIES

k = rf + B (rm - rf)

[rf]* = 6.05%
[rm - rf]† = 7.40% (geometric mean)
[rm - rf]† = 9.40% (arithmetic mean)
average beta = 0.81

k = 6.05% + 0.81 (7.40%/9.40%)
k = 6.05% + 5.99%/7.61%
k = 12.04% / 13.66%

Midpoint = 12.85%

*Risk-free rate average of current T-Bill (5.92%) and T-Bill futures (6.17%) rates [5.92%+6.17%/2=6.05%].
T-Bill futures rate at December 2000, from Wall Street Journal, June 8, 2000, p. C18.
Current T-Bill yield, six-week average yield from Value Line Selection & Opinion (4/28/00-6/2/00)
†Geometric and arithmetic market risk premiums from Ibbotson Associates 1999 SBBI Yearbook, p. 33.

US WEST COMMUNICATIONS

CAPM COST OF EQUITY CAPITAL
INSURANCE COMPANIES

k = rf + B (rm - rf)

[rf]* = 6.05%
[rm - rf]† = 7.40% (geometric mean)
[rm - rf]† = 9.40% (arithmetic mean)
average beta = 0.90

k = 6.05% + 0.90 (7.40%/9.40%)
k = 6.05% + 6.66%/8.46%
k = 12.71% / 14.51%

Midpoint = 13.61%

*Risk-free rate average of current T-Bill (5.92%) and T-Bill futures (6.17%) rates [5.92%+6.17%/2=6.05%].
T-Bill futures rate at December 2000, from Wall Street Journal, June 8, 2000, p. C18.
Current T-Bill yield, six-week average yield from Value Line Selection & Opinion (4/28/00-6/2/00)
†Geometric and arithmetic market risk premiums from Ibbotson Associates 1999 SBBI Yearbook, p. 33.

US WEST COMMUNICATIONS

CAPM COST OF EQUITY CAPITAL
GAS DISTRIBUTION COMPANIES

k = rf + B (rm - rf)

[rf]* = 6.05%
[rm - rf]† = 7.40% (geometric mean)
[rm - rf]† = 9.40% (arithmetic mean)
average beta = 0.57

k = 6.05% + 0.57 (7.40%/9.40%)
k = 6.05% + 4.23%/5.37%
k = 10.28% / 11.42%

Midpoint = 10.85%

*Risk-free rate average of current T-Bill (5.92%) and T-Bill futures (6.17%) rates [5.92%+6.17%/2=6.05%].
T-Bill futures rate at December 2000, from Wall Street Journal, June 8, 2000, p. C18.
Current T-Bill yield, six-week average yield from Value Line Selection & Opinion (4/28/00-6/2/00)
†Geometric and arithmetic market risk premiums from Ibbotson Associates 1999 SBBI Yearbook, p. 33.

US WEST COMMUNICATIONS

PROOF

If book value exceeds market price,
the market-to-book ratio is less than 1.0,
and the earnings-price ratio exceeds the cost of capital.

MP = market price
BV = book value
i = cost of equity capital
r = earned return
E = earnings

1. At $MP = BV$, $i = r = \frac{E}{MP}$.

2. $E = rBV$.

3. Then, $\frac{E}{MP} = \frac{rBV}{MP}$.

4. When $BV > MP$, i.e., $\frac{BV}{MP} > 1$, then,

   a. $\frac{E}{MP} > r$, since $\frac{E}{MP} = \frac{rBV}{MP} > r$, because $\frac{BV}{MP} > 1$;

   b. $i > r$, since at $\frac{BV}{MP} = 1$, $i = \frac{E}{MP} = \frac{rBV}{MP}$, but if $\frac{BV}{MP} > 1$, then $i > r$; and

   c. $\frac{E}{MP} > i$, since at $\frac{BV}{MP} = 1$, $i = \frac{E}{MP} = \frac{rBV}{MP}$, but if $\frac{BV}{MP} > 1$, then $\frac{E}{MP} > i$, because,

      1) $\frac{BV}{MP} > 1$, through MP decreasing, and, if so, $\frac{E}{MP}$ increases, therefore, $\frac{E}{MP} > i$, or

      2) $\frac{BV}{MP} > 1$, through BV increasing, and, if so, given $E = rBV$, $\frac{E}{MP}$ increases, therefore, $\frac{E}{MP} > i$.

5. Ergo, $\frac{E}{MP} > i > r$, the cost of capital exceeds the earned return.

US WEST COMMUNICATIONS

MODIFIED EARNINGS-PRICE RATIO ANALYSIS
TELECOMMUNICATIONS COMPANIES

COMPANY	Analyst's PROJ. 2000 EARNINGS (Per Share)	MARKET PRICE (Per share)	EARNINGS-PRICE RATIO	CURRENT R.O.E. 2000	PROJECTED R.O.E. 2003-2005
BEL	$3.30	$53.66	6.15%	29.00%	26.00%
BLS	$2.22	$46.73	4.75%	26.00%	26.00%
GTE	$3.83	$63.69	6.01%	30.50%	23.50%
SBC	$2.29	$43.92	5.21%	25.50%	21.50%
USW	$3.42	$73.23	4.67%	NMF	41.00%
		AVERAGE	5.36%	27.75%	
		CURRENT M.E.P.R.	**16.55%**		
		AVERAGE	5.36%		27.60%
		PROJECTED M.E.P.R.		**16.48%**	

US WEST COMMUNICATIONS

MODIFIED EARNINGS-PRICE RATIO ANALYSIS
INSURANCE COMPANIES

COMPANY	Analyst's PROJ. 2000 EARNINGS (Per Share)	MARKET PRICE (Per share)	EARNINGS-PRICE RATIO	CURRENT R.O.E. 2000	PROJECTED R.O.E. 2003-2005
BKLY	$1.21	$21.63	5.59%	4.50%	8.50%
CB	$4.02	$65.90	6.10%	10.00%	10.00%
CINF	$1.65	$39.75	4.15%	4.50%	7.00%
OCAS	($0.33)	$13.32	NMF	4.00%	11.50%
SAFC	$0.96	$22.73	4.22%	5.00%	8.50%
SPC	$2.77	$36.63	7.56%	9.00%	10.50%
SIGI	$1.57	$18.99	8.27%	7.50%	10.00%
TRH	$5.56	$86.04	6.46%	11.00%	12.00%
AIG	$3.67	$115.45	3.18%	15.30%	14.50%
UNIT	$1.94	$32.47	5.97%	7.50%	11.00%
		AVERAGE	5.72%	7.83%	
		CURRENT M.E.P.R.	**6.78%**		
		AVERAGE	5.72%		10.35%
		PROJECTED M.E.P.R.		**8.04%**	

US WEST COMMUNICATIONS

MODIFIED EARNINGS-PRICE RATIO ANALYSIS
GAS DISTRIBUTION COMPANIES

COMPANY	Analyst's PROJ. 2000 EARNINGS (Per Share)	MARKET PRICE (Per share)	EARNINGS-PRICE RATIO		CURRENT R.O.E. 2000	PROJECTED R.O.E. 2003-2005
ATG	$1.14	$16.64	6.85%		10.00%	12.50%
ATO	$1.00	$16.53	6.05%		7.50%	15.50%
CGC	$1.34	$16.95	7.91%		12.50%	13.00%
NJR	$2.68	$39.70	6.75%		15.00%	16.00%
NWNG	$1.78	$21.44	8.30%		10.00%	10.50%
PNY	$2.11	$28.89	7.30%		12.50%	13.00%
SJI	$2.08	$26.00	8.00%		11.50%	11.50%
		AVERAGE	7.31%		11.29%	
		CURRENT M.E.P.R.		**9.30%**		
		AVERAGE	7.31%			13.14%
		PROJECTED M.E.P.R.			**10.23%**	

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
TELECOMMUNICATIONS COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2000]

COMPANY									MARKET-TO-BOOK COST OF EQUITY
BEL	k= 29.0%	(1-	0.5224)/	4.31	+	10.09%	=		13.30%
BLS	k= 26.0%	(1-	0.6545)/	4.89	+	10.01%	=		11.85%
GTE	k= 30.5%	(1-	0.5117)/	4.19	+	11.25%	=		14.80%
SBC	k= 25.5%	(1-	0.5739)/	4.05	+	11.00%	=		13.68%
USW	k= NMF	(1-	0.3706)/	13.56	+	8.25%	=		NMF
								AVERAGE	**13.41%**
								STANDARD DEVIATION	**1.22%**

Note: Equity returns and retention ratios based on Value Line current year projections.

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
TELECOMMUNICATIONS COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2003-2005]

COMPANY								MARKET-TO-BOOK COST OF EQUITY
BEL	k= 26.0%	(1- 0.6206)/	4.31	+	10.09%	=		12.38%
BLS	k= 26.0%	(1- 0.7634)/	4.89	+	10.01%	=		11.27%
GTE	k= 23.5%	(1- 0.6746)/	4.19	+	11.25%	=		13.08%
SBC	k= 21.5%	(1- 0.6595)/	4.05	+	11.00%	=		12.81%
USW	k= 41.0%	(1- 0.6492)/	13.56	+	8.25%	=		9.31%
							AVERAGE	**11.77%**
							STANDARD DEVIATION	**0.80%**

Note: Equity returns and retention ratios based on Value Line three- to five-year projections.

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
INSURANCE COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2000]

COMPANY									MARKET-TO-BOOK COST OF EQUITY
BKLY	k= 04.5%	(1-	0.5840)/	0.88	+	7.18%	=		9.32%
CB	k= 10.0%	(1-	0.6267)/	1.73	+	7.82%	=		9.98%
CINF	k= 04.5%	(1-	0.5778)/	1.12	+	10.63%	=		12.34%
OCAS	k= 04.0%	(1-	-0.3143)/	0.71	+	7.82%	=		15.24%
SAFC	k= 05.0%	(1-	0.0000)/	0.68	+	9.08%	=		16.46%
SPC	k= 09.0%	(1-	0.6109)/	1.21	+	8.25%	=		11.15%
SIGI	k= 07.5%	(1-	0.6250)/	0.86	+	8.35%	=		11.61%
TRH	k= 11.0%	(1-	0.9113)/	1.60	+	10.84%	=		11.45%
AIG	k= 15.3%	(1-	0.9388)/	7.22	+	16.11%	=		16.24%
UNIT	k= 07.5%	(1-	0.1176)/	1.35	+	7.23%	=		12.14%
								AVERAGE	**12.59%**
								STANDARD DEVIATION	**2.53%**

Note: Equity returns and retention ratios based on Value Line current year projections.

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
INSURANCE COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2003-2005]

COMPANY								MARKET-TO-BOOK COST OF EQUITY
BKLY	k= 08.5%	(1- 0.7778)/	0.88	+	7.18%	=		9.34%
CB	k= 10.0%	(1- 0.6818)/	1.73	+	7.82%	=		9.66%
CINF	k= 07.0%	(1- 0.5789)/	1.12	+	10.63%	=		13.28%
OCAS	k= 11.5%	(1- 0.5840)/	0.71	+	7.82%	=		14.57%
SAFC	k= 08.5%	(1- 0.4776)/	0.68	+	9.08%	=		15.63%
SPC	k= 10.5%	(1- 0.6925)/	1.21	+	8.25%	=		10.92%
SIGI	k= 10.0%	(1- 0.7382)/	0.86	+	8.35%	=		11.39%
TRH	k= 12.0%	(1- 0.9211)/	1.60	+	10.84%	=		11.43%
AIG	k= 14.5%	(1- 0.9375)/	7.22	+	16.11%	=		16.23%
UNIT	k= 11.0%	(1- 0.3333)/	1.35	+	7.23%	=		12.67%
							AVERAGE	**12.51%**
							STANDARD DEVIATION	**2.40%**

Note: Equity returns and retention ratios based on Value Line three- to five-year projections.

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
GAS DISTRIBUTION COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2000]

COMPANY									MARKET-TO-BOOK COST OF EQUITY
ATG	k= 10.0%	(1-	0.0609)/	1.39	+	3.80%	=		10.57%
ATO	k= 07.5%	(1-	-0.2667)/	1.39	+	5.99%	=		12.83%
CGC	k= 12.5%	(1-	0.2615)/	1.64	+	4.56%	=		10.19%
NJR	k= 15.0%	(1-	0.3509)/	2.25	+	6.34%	=		10.67%
NWNG	k= 10.0%	(1-	0.3111)/	1.19	+	4.74%	=		10.52%
PNY	k= 12.5%	(1-	0.3048)/	1.72	+	5.79%	=		10.83%
SJI	k= 11.5%	(1-	0.3209)/	1.44	+	4.94%	=		10.37%
								AVERAGE	**10.86%**
								STANDARD DEVIATION	**0.89%**

Note: Equity returns and retention ratios based on Value Line current year projections.

US WEST COMMUNICATIONS

MARKET-TO-BOOK RATIO ANALYSIS
GAS DISTRIBUTION COMPANIES

k = R.O.E.(1-b)/(M/B) + g
[2003-2005]

COMPANY									MARKET-TO-BOOK COST OF EQUITY
ATG	k= 12.5%	(1-	0.3030)/	1.39	+	3.80%	=		10.08%
ATO	k= 15.5%	(1-	0.4375)/	1.39	+	5.99%	=		12.26%
CGC	k= 13.0%	(1-	0.4118)/	1.64	+	4.56%	=		9.23%
NJR	k= 16.0%	(1-	0.4865)/	2.25	+	6.34%	=		10.00%
NWNG	k= 10.5%	(1-	0.4348)/	1.19	+	4.74%	=		9.72%
PNY	k= 13.0%	(1-	0.4036)/	1.72	+	5.79%	=		10.29%
SJI	k= 11.5%	(1-	0.3846)/	1.44	+	4.94%	=		9.86%
								AVERAGE	**10.21%**
								STANDARD DEVIATION	**0.97%**

Note: Equity returns and retention ratios based on Value Line three- to five-year projections.

US WEST COMMUNICATIONS

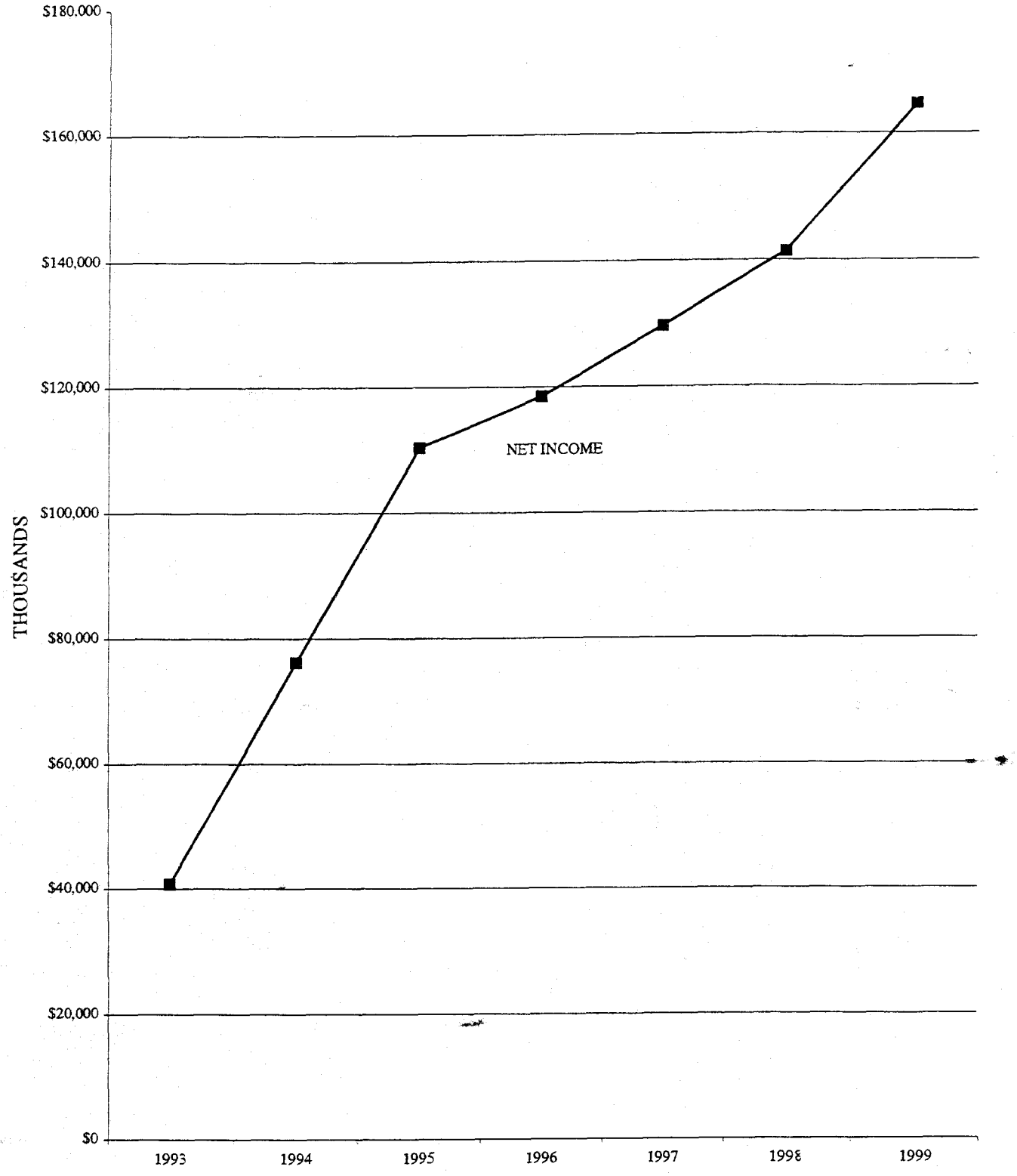
OVERALL COST OF CAPITAL

TYPE OF CAPITAL	PERCENT OF TOTAL	COST RATE	WT. AVG. COST RATE
Common Equity	52.43%	11.75%	6.16%
Total Debt	47.57%	7.39%	3.52%
TOTALS	100.00%		9.68%

PRE-TAX INTEREST COVERAGE = 3.92x

*Assumming the Company experiences a 40% Federal and State income tax rate, prospectively, the pre-tax overall return would be 13.78% [9.68% - 3.52% = 6.16%/(1-40%) = 10.527%% + 3.52%]. That pre-tax overall return (13.78%), divided by the weighted cost of debt (3.52%), indicates a pre-tax interest coverage level of 3.92 times.

US WEST COMMUNICATIONS
ARIZONA JURISDICTIONAL NET INCOME



Data from Company response to SGH01-11.

EXHIBIT
S-19
Admitted

QWEST (US WEST COMMUNICATIONS)

ARIZONA CORPORATION COMMISSION

DOCKET NO. T-01051B-99-105

SURREBUTTAL TESTIMONY

OF

STEPHEN G. HILL

ON BEHALF OF

THE

ARIZONA CORPORATION COMMISSION STAFF

September 8, 2000

EXECUTIVE SUMMARY

Mr. Hill responds to the Rebuttal Testimony of Company rate of return witness Peter Cummings. Mr. Cummings' rebuttal is, in the main, short on substance and does not cause Mr. Hill to change his testimony or recommendation to the Commission in any way. Mr. Hill continues to recommend that an equity return of 11.75% and an overall return of 9.55% be utilized to set rates for the Company's local exchange operations in Arizona.

Company witness Cummings claims that Mr. Hill's use of gas distribution companies to establish the lower end of a range of reasonable equity returns for the Company is improper. However, Mr. Cummings' focus is on Qwests' corporate operations, not on the portion of that company for which rates are to be set in this proceeding—Qwests' local exchange operations in Arizona. Mr. Hill demonstrates that he has provided very specific evidence regarding the operations of Qwests' Arizona local exchange operations which indicates that the Company has similar operating risk to gas distributors. Those data were confirmed independently by other witnesses in this proceeding. Mr. Cummings' rebuttal fails to discuss any of those Company-specific, Arizona-specific operating risk issues presented by Mr. Hill.

Mr. Cummings also takes issue with Mr. Hill's use of telecommunications holding companies to establish the upper end of a reasonable range of equity returns for the Company. However, the fact that large, diversified telecommunications holding companies (which hold substantial stakes in wireless, cable and overseas telephone operations) are riskier than local exchange operations is widely accepted and confirmed by the telcos themselves in their S.E.C. filings. As support for that position, Mr. Hill cites the recent Order by the Vermont Public Service Board in an equity return determination for Bell Atlantic (now Verizon). That Order found that an 11.5% equity return was reasonable, and confirmed that it is widely understood in the financial community that local exchange operations are less risky than the operations of the larger, diversified telecommunications holding companies.

Mr. Cummings also questions Mr. Hill's use of property/casualty insurance companies as support for the upper end of a reasonable range of equity returns for Qwests' local exchange operations in Arizona. However, Mr. Hill discusses the need for additional support for the upper end of his range due to the relatively small (and dwindling) number of large telecom firms that have significant local telephone operations. Mr. Hill also points out that those firms are both fully-competitive and rate regulated and, therefore, are similar regulatory risk-wise to the telecom companies. Finally, the average beta coefficient of those insurance firms studied by Mr. Hill is *greater* than the average beta coefficient of the telecommunications holding companies, signifying greater risk for the former. That factor indicates the use of insurance companies is a conservative proxy for the equity return of large telecom holding companies. Mr. Cummings, who relies heavily on beta in his cost of capital analysis is silent in his rebuttal on that issue and, instead, opines that Mr. Hill's use of insurance companies as an additional indicator of the upper end of a reasonable range of equity returns for the Company "just doesn't make sense." Mr. Cummings position does not constitute reliable rebuttal to Mr. Hill's use of competitive firms to set the upper end of a reasonable equity cost range in this proceeding.

In his Rebuttal Testimony, Company witness Cummings opines that Mr. Hill's "failure" to rely solely on earnings growth rate projections is at odds with normal cost of capital estimation practice. That concern is unfounded. Mr. Hill's equity cost analysis is based on sound financial economics, is well within the norms exhibited by rate of return professionals and has been accepted for ratemaking purposes. Mr. Hill devotes a significant portion of his Direct Testimony to explaining the accounting mechanics of how growth actually occurs in regulated firms, citing references to the financial literature, and discussing in detail the growth rate analysis of each company he analyzes. In addition, Mr. Hill discusses the problems of basing DCF growth rate exclusively on earnings growth projections. In exploring that latter point, Mr. Hill again relies on his research and understanding of the financial literature and shows that, while earnings growth rate estimates are influential and should certainly be considered in determining the long-term sustainable growth rate called for in the DCF, they should not be given

exclusive consideration. Investors have access to many different types of growth rate information (e.g., historical and projected growth in dividends, sustainable growth, and book value as well as earnings) and it is simply not reasonable to believe—as witness Cummings implies—that investors, en masse, ignore all growth rate indicators except projected earnings growth.

The final issue to which Mr. Cummings devotes a rather large portion of his Rebuttal Testimony addresses one portion of the Capital Asset Pricing Model (CAPM)—the market risk premium. Specifically, there are two ways to calculate an average market risk premium from historical data. The first is a geometric mean, which is effectively the compound growth over the entire period. The second is an arithmetic mean, which is the sum of the yearly growth rates divided by the number of years. Mr. Hill uses both averages in his CAPM, and Mr. Cummings believes only the arithmetic average is proper. Mr. Cummings recognizes in his rebuttal that the issue of which growth rate average is correct is undecided in the financial literature. Nevertheless, he concludes that only the arithmetic mean should be considered in the CAPM. Mr. Hill's surrebuttal shows that the key rationale on which Mr. Cummings' support of the arithmetic mean rests is, itself, controversial in the literature, and the issue of which historical average to use is not as black and white as Mr. Cummings' rebuttal indicates. In addition, Mr. Hill notes that investors have equal access to both averages which are published in the same source and other studies of historical return data indicate that both averages may be conservative (i.e., too high) for cost of capital estimation purposes. In sum, Mr. Cummings extensive rebuttal on this rather small point is unconvincing and Mr. Hill's position that all of the available data (both the geometric and arithmetic averages) should be used in an accurate CAPM analysis remains reasonable.

INTRODUCTION / SUMMARY

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Stephen G. Hill. I am self-employed as a financial consultant, and principal of Hill Associates, a consulting firm specializing in financial and economic issues in regulated industries. My business address is P. O. Box 587, 4000 Benedict Road, Hurricane, West Virginia, 25526 (e-mail: sghill@compuserve.com).

Q. ARE YOU THE SAME STEPHEN HILL WHO TESTIFIED PREVIOUSLY IN THIS PROCEEDING ON BEHALF OF THE STAFF OF THE ARIZONA CORPORATION COMMISSION REGARDING COST OF CAPITAL ISSUES?

A. Yes, I am. In my Direct Testimony in this proceeding I presented a cost of capital analysis for the Arizona local exchange operations of Qwest, formerly US WEST Communications, Inc. (Qwest, the Company). That analysis indicated that the cost of equity capital for Qwest's Arizona local exchange operations is 11.75% (the mid-point of a reasonable range, 11% to 12.5%) and the overall cost of capital which should be utilized for ratesetting purposes is 9.55%.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY AT THIS TIME?

A. I will respond to the Rebuttal Testimony of Company witness Peter Cummings.

Q. HAS THE REBUTTAL TESTIMONY OF COMPANY WITNESS CUMMINGS CAUSED YOU TO AMEND YOUR TESTIMONY OR YOUR RECOMMENDATIONS TO THE COMMISSION IN ANY WAY?

A. No. Except for his testimony addressing one portion of one type of corroborative cost of capital model, Mr. Cummings rebuttal is, in the main, extremely short on substance. It fails to address objective differences between our analytical techniques that might be tied to

underlying economic theory and relies, instead, on disparaging remarks about me, personally. As such, it amounts to very little rebuttal of substance. Moreover, as I will demonstrate subsequently, the information presented by Mr. Cummings in the one area in which he does present substantial rebuttal—the selection of a Capital Asset Pricing Model (CAPM) market risk premium—supports my position on that issue.

Q. HOW WILL YOUR SURREBUTTAL TESTIMONY BE ORGANIZED?

A. I will respond to the issues raised by Company witness Cummings in the order presented in his Rebuttal Testimony. Mr. Cummings discusses the relative risk of local exchange telephone operations, the growth rate parameters in the Discounted Cash Flow (DCF) analysis and the selection of the market risk premium in the Capital Asset Pricing Model (CAPM).

Q. IS YOUR EQUITY COST ESTIMATE RANGE FOR QWEST's ARIZONA LOCAL EXCHANGE OPERATIONS OF 11% TO 12.5%, WITH A MID-POINT OF 11.75%, REASONABLE FOR RATESETTING PURPOSES IN THIS PROCEEDING?

A. Yes. As I demonstrated in significant detail in my Direct Testimony an equity cost estimate range for the Company's local exchange telephone operations in Arizona of 11% to 12.5% properly recognizes the return equity investors require for the risk of those operations, provides a return which will allow the Company to attract capital and, thus, balances the interests of investors and ratepayers. Mr. Cummings' testimony to the contrary is incorrect.

Q. AT PAGE 16 OF HIS REBUTTAL MR. CUMMINGS CLAIMS THAT GAS DISTRIBUTION COMPANIES SHOULD NOT BE USED TO DETERMINE THE LOWER END OF A REASONABLE RANGE OF PROFITABILITY FOR THE COMPANY. IS THAT CORRECT?

A. No. It is correct, as I point out in my Direct Testimony, that gas distribution operations are less risky than local exchange telephone operations. However, Mr. Cummings' rebuttal conclusion, i.e., that the market-determined cost of equity capital of gas distribution

companies is not useful in assisting the determination of a cost of equity range for local exchange companies, is incorrect. Moreover, there are many flaws in the subjective rationale he offers.

First, when Mr. Cummings discusses the "Company's" operating risk, he is careful to refer to the entire company—the telecommunications holding company (Qwest Corporation). However, the focus in this proceeding and the ostensible object of our inquiry is the Arizona local exchange telephone operations, not any of Qwest's other (arguably more risky) operations. Therefore, when Mr. Cummings testifies that Qwest Corporation is considerably more risky than gas distributors, he's correct, but he's off point. Qwest Corporation is also considerably more risky than its local exchange operations in Arizona. What Mr. Cummings purposefully overlooks in his focus on Qwest Corporation is that the Company's local exchange operations, while carrying somewhat more risk than gas distribution operations, have a risk profile that is similar in many ways to gas distributors. I discuss the ways in which local exchange operations are similar to gas distribution operations in my direct testimony at pages 19 and 20. Mr. Cummings does not discuss that testimony in his rebuttal.

Second, Mr. Cummings cites the average beta for the telecommunications holding companies (0.84) as evidence that "the Company" has substantially greater risk than gas distribution companies (beta = 0.55). Again, Mr. Cummings grounds his position on the wrong company, i.e., comparing the risk of the much riskier, more diverse telecommunications holding companies to the risk of gas distributors. However, we are not setting rates for a diversified telecommunications holding company, we are setting rates for a local exchange telephone company which remains, in many ways, similar to a gas utility operation. Also, as I point out in Appendix D attached to my Direct Testimony in this proceeding, beta, alone, is not a particularly reliable measure of relative risk. Finally, it is curious that Mr. Cummings would rely so heavily on beta to support his rejection of my gas distribution proxy group. That is because the average beta coefficient of my insurance proxy group (according to Mr. Cummings' own Rebuttal Schedule PCC-01, page 2) is <u>higher</u> than the average beta of even the telecommunications holding companies (0.94 v.

0.82). In that instance his preferred risk measure, beta, indicates that the insurance proxy is riskier than the telecom holding companies; and should yield conservative (high) equity cost result. Yet, Mr. Cummings rejects my use of those insurance companies as well. Thus, it appears that his reliance on beta as a risk similarity measure is selective in that it eliminates only the lower risk, lower return companies.

Third, following my discussion of the similarities between local exchange telephone and gas distribution operations, at page 21 of my Direct Testimony, I discuss very specific issues related to the market share of the Company's Arizona local exchange operations. Those data show that the Company, even following the onset of competition, continues to control an enormous share of the market. Moreover, the Company's local exchange revenues have shown strong, steady growth over the past ten years and, over the past four years (a period when competition is supposedly creating greater operating risk) the Company's Arizona jurisdictional revenues grew even more rapidly. That jurisdictional operating history is based on the Company's own confidential information and was confirmed independently in the Direct Testimony of AT&T witness Selwin in this proceeding:

> "A primary public source of this information is the competition data submitted by the ILECs to the FCC's Common Carrier Bureau on a voluntary basis. The most recent such data was reported as of June 30, 1999. The information reported to the FCC by US West for Arizona shows that 0.5 percent—that is, one-half of one percent—of the Company's switched lines were being provided to CLECs for "total service resale" [footnote omitted] UNE loops leased by CLECs from US West in Arizona accounted for another 0.1 percent of US West's switched access lines [footnote omitted], for a grand total of six-tenths of one percent [footnote omitted]." (Selwin Direct, p. 8, l. 17 through p. 9, l. 2)

These data, along with similar information provided in my direct testimony show quantitatively that the Company's local exchange operations retain operating characteristics that are similar to utilities. Importantly, Mr. Cummings offers not one word in rebuttal regarding the Company's market share in Arizona or the Company's jurisdictional financial operating results.

In sum, as I noted above, I recognize that due to the nature of telecommunications services and the technological innovation which exists in that industry, local exchange telephone companies have somewhat more risk than regulated utility operations. However, in many ways, not the least of which is market share, the operating risk of local exchange telephone operations are similar to those faced by gas distributors. Therefore, it is reasonable to use, as I have in my testimony, the uppermost end of a reasonable range of equity returns for gas distributors as the lowest end of a reasonable range of equity returns for local exchange telephone operations. That means that the very lowest equity return I would recommend for the least risky local exchange company would be equal to that appropriate for the riskiest gas distribution operation. Of course, the equity return I recommend for Qwest's Arizona operations is well above (75 basis points) that level. Mr. Cummings' rebuttal regarding my use of gas distribution companies to establish a lower bound of equity returns for local exchange companies is off-point, logically inconsistent, and selectively ignores quantitative evidence provided by the Company and confirmed by other witnesses in this proceeding that the Company's operating risk is, indeed, somewhat similar to that of a utility operation.

Q. SUBSEQUENT TO HIS TESTIMONY REGARDING GAS COMPANIES, MR. CUMMINGS INDICATES THAT THE UPPER BOUND OF A RETURN RANGE SHOULD BE EQUIVALENT TO, NOT AT THE LOWER END OF A REASONABLE RANGE FOR TELECOMMUNICATIONS HOLDING COMPANIES. IS HE CORRECT?

A. No. The fact that local exchange telephone company operations carry lower risk than the diversified holding companies is widely recognized in the financial media, by the companies themselves, and, as shown in the quote below, by regulators:

> "The greater risks posed by the diversified holdings of RBHCs [telecom holding companies], as opposed to the relative safety of their local exchange operations, is well documented, thus warranting the use of the low end of the group [to set the upper end of a reasonable range for local exchange operations]. Bell Atlantic Corporation in its SEC

> Form S-4 related to its merger with NYNEX, represented to the investment community that the holding company as a whole is a more risky venture than its local exchange telephone operations [footnote omitted]. Merrill Lynch, pre-merger Bell Atlantic's financial advisor for that deal, set a discount rate for the local telephone operations of Bell Atlantic Corporation and NYNEX of 8 to 10 percent, and set discount rates for the holding companies' other businesses, such as long distance and cellular, at 10 to 14 percent. Bond rating agencies have confirmed that the local exchange operations of an RBHC present a far lower risk profile than that of the RBHC with its diversified holding of risky enterprises [footnote omitted]." (Vermont Public Service Board Order in Docket Nos. 6167 and 6189, Investigation into an Alternative Regulation Plan for New England Telephone and Telegraph Company d/b/a Bell Atlantic-Vermont, March 24, 2000, p. 75)

It should also be noted that in the recent Vermont Order cited above, that regulatory body not only accepted the lower end of the cost of equity range for the telecommunications holding companies as reasonable for the upper end of the cost of equity range for local exchange operations, they accepted the reasonableness of using the upper end of the cost of equity range for gas distributors as the lower end of the cost of equity range for local exchange operations.

Q. AT PAGE 20 OF HIS REBUTTAL, MR. CUMMINGS QUESTIONS YOUR USE OF INSURANCE COMPANIES AS SIMILAR-RISK PROXIES TO THE TELECOMMUNICATIONS COMPANIES. HOW DO YOU RESPOND?

A. Mr. Cummings cites a portion of my testimony which underscores the fact that insurance companies are fully-competitive firms and then opines that my selection of those firms as similar-risk proxies to the telecom holding companies "doesn't make sense." Yet, it is Mr. Cummings who insists the Company is "in competition with other providers" (Cummings Rebuttal, p. 17, l. 5). It would seem, then, that fully-competitive firms like insurance companies would make at least some "sense" to Mr. Cummings.

It is important to recall, as I noted in my Direct Testimony, that I elected to analyze the equity cost of the insurance companies in addition to the telecommunications holding

companies because the latter were undergoing mergers and had shrunk to just five in number. The fluctuating corporate alliances as well as the small number of firms in the telecommunications sample group, in my view, made the equity cost estimate for those companies somewhat less reliable that it has been in the past. For those reasons, I elected to bolster the equity cost estimate for the telecommunications firms (the high end of a reasonable range for local exchange companies) by analyzing property/casualty insurance companies.

Also, a portion of my testimony, immediately following the section that Mr. Cummings elects to cite, discusses the fact that insurance companies (unlike grocery stores, for example) are rate-regulated operations. That fact also makes them reliable proxies for the telecom companies which have a portion of their operations (local exchange companies) that are rate-regulated. Mr. Cummings fails to discuss this point.

Finally, the average beta coefficient of the insurance companies is higher than that of the telecommunications holding companies. As I noted, Mr. Cummings relies heavily on the beta risk measure in both his Direct and Rebuttal testimonies, but is silent on that issue here. According to that risk measure, the insurance companies are not only relatively similar in risk to the telecom holding companies—they have greater risk. That would mean that an equity cost determined for those companies would exceed that appropriate for even a telecom holding company. It would seem that the beta risk measure would be sufficient to indicate a high enough risk level to suit Mr. Cummings, but, again, he is silent on that subject and simply declares that my use of insurance company proxies "makes no sense."

In fact, the use of insurance companies as proxies for diversified telecom holding companies makes plenty of sense from both a quantitative (statistical) and qualitative (economic) standpoints, and the results of my equity cost analysis of those companies (as shown on page 44 of my direct Testimony) is, indeed very similar to the telecom holding companies. As such, it confirms the reasonableness of the upper end of my recommended range for the Company's local exchange operations. Mr. Cummings' rebuttal on this point should be ignored.

Q. MR. CUMMINGS CHARACTERIZES YOUR USE OF INSURANCE COMPANIES TO SUPPORT THE EQUITY COST ESTIMATE OF THE TELECOM HOLDING COMPANIES AS "AD HOC." HE MAKES THE SAME COMMENT REGARDING YOUR DCF GROWTH RATE ANALYSIS. WHAT DOES HE MEAN BY THAT?

A. The Webster's[1] dictionary I have in my office defines "ad hoc" as something that is "for a specific purpose, case, or situation," as in "an ad hoc committee was formed to study the problem." We can safely assume that the "specific purpose" afforded my DCF growth rate analysis or my use of insurance companies by Mr. Cummings is not "to estimate the cost of equity of a local exchange operation." If that were the case, calling my analysis "ad hoc" would not constitute rebuttal; it would be an affirmation. What Mr. Cummings implies is that I have simply made up an analysis which produces the results I want. This is a completely false and self-serving assertion.

In response, I would note three things. First, as I discussed above, I provided specific rationale for the use of additional proxy companies. Mr. Cummings elected to ignore that rationale in his rebuttal and cast aspersions instead.

Second, my DCF growth rate analyses for each of the companies I analyzed in my Direct Testimony is discussed in great detail in Appendix C attached to that testimony. Moreover, in the body of my Direct and in Appendix B attached to it, I discuss the theoretical rationale on which that growth rate analysis is grounded and provide cites to the sources. Finally, I discussed the flaws in relying exclusively on earnings growth rate projections, showing the wide variability of those estimates and discussing the studies in the financial literature which purportedly support the use of earnings growth measures. Mr. Cummings "rebuttal" fails to discuss the merits or demerits of any portion of my growth rate analysis—not one sample group, not one company, not a portion of the analysis of any company...nothing. He merely dubs it "ad hoc."

Third, Mr. Cummings and I have testified against each other many times over many years. He knows very well that the methodologies I use are based on economic theories

[1] Webster's II, New Riverside University Dictionary, Riverside Publishing Company, Haughton Mifflin Company, Boston MA, 1988.

that are widely accepted and have been applied in a consistent manner. The analytical methods I have used to estimate the cost of equity have been consistent for more than fifteen years and have been accepted by regulatory agencies. The notion that I have somehow "fixed" the 11.75% equity cost estimate I present in this proceeding prior to undertaking my analysis is just plain silly, as are Mr. Cummings' comments that my analysis was done on an "ad hoc" basis to produce a specific result.

Q. AT PAGE 24 OF HIS REBUTTAL, MR. CUMMINGS INDICATES THAT YOUR DCF GROWTH RATE ANALYSIS IS FLAWED BECAUSE YOU HAVE NOT RELIED ON ANALYST'S GROWTH RATE PROJECTIONS. IS THAT CORRECT?

A. No. The "consensus" analyst's growth rate estimates to which Mr. Cummings refers are earnings growth rate estimates. I have considered those growth rates in my analysis, but have not slavishly plugged them into a DCF analysis because to do so, absent consideration of any other widely-available growth rate data, would run the risk of producing equity cost estimates which are seriously in error.

There are many reasons for this, all of which I discuss in detail in my Direct Testimony. The notion of a "consensus" growth expectation among analysts is not a reality. As shown in Table I on page 52 of my Direct Testimony, analysts' earnings growth rate estimates for the telecommunications holding companies showed an average range of about 800 basis points from the lowest growth rate estimate to the highest.

Appendix B attached to my testimony shows how earnings growth rates can be distorted by operating changes and that sole reliance on that one measure of growth can produce unreliable equity cost estimates. There are many other growth rate measures, both historical and projected, which are widely available to investors and should be considered in order to determine the long-term sustainable growth rate called for in the DCF model (e.g., dividend and book value growth rates).

Finally, as I also noted in my Direct Testimony, the academic studies that show analysts' earnings growth projections to be superior price predictors are all based on comparing those projections with simple historical average growth rates. If I were basing

my DCF cost of capital estimate solely on historical average growth rates, Mr. Cummings' rebuttal might have some moment. However, my DCF growth rate analysis—spelled out in detail for each company analyzed in Appendix C attached to my Direct Testimony—is based not on simple historical growth rates of one particular measure but trends in historical growth of many variables in combination with projected growth rates for earnings, dividends and book value—all of which are publicly available analysts' projections.

Q. THE LAST ISSUE RAISED BY MR. CUMMINGS IN REGARD TO YOUR TESTIMONY IS THE SELECTION OF A PARTICULAR KIND OF MATHEMATICAL AVERAGING TECHNIQUE. HE DEVOTES SEVERAL PAGES OF TESTIMONY AND A 19-PAGES APPENDIX TO THIS ISSUE; CAN YOU PUT THIS INTO PERSPECTIVE?

A. Yes. The issue to which Mr. Cummings has devoted a great deal of his rebuttal is one portion of the Capital Asset Pricing Model. In that econometric model, the cost of capital is equal to the risk-free rate of return (U.S. Treasury bills) plus beta (a measure of relative risk) times the market risk premium (the historical average difference between the return on stocks and the return on Treasury bills). The formula is expressed as follows:

$$k = r_f + \beta(r_m - r_f), \qquad (1)$$

where "k" is the cost of equity capital of an individual security, "r_f" is the risk-free rate of return, "β" is the beta coefficient, "r_m" is the average market return and "$r_m - r_f$" is the market risk premium. Mr. Cummings rebuttal testimony focuses only on that last term in the CAPM equation—the market risk premium.

There are two ways to calculate the average historical return difference between stocks and bonds: geometric averaging and arithmetic averaging. As I explained in my Direct Testimony at page 35, geometric averaging is the nth root of the product of "n" numbers and produces what amounts to a compound return over time. Arithmetic averaging is the mean of the sum of the individual yearly returns and (based on the Ibbotson data used

by Mr. Cummings and myself) assumes monthly selling and re-buying of the entire market portfolio.

In my CAPM analysis I have used both the geometric and the arithmetic mean market risk premium published by Ibbotson associates (7.4% and 9.4%), while Mr. Cummings uses only the arithmetic mean (9.4%). The difference between the average market risk premium I used in my CAPM (8.4%) and that used by Mr. Cummings (9.4%) is 100 basis points. Depending on the value of beta (e.g., 0.56 for gas distributors, 0.84 for telecom holding companies[2]) the difference in the choice of market risk premium can have an impact on the CAPM result of 50 to 80 basis points. It is to this issue that Mr. Cummings devotes more than 20 pages of his rebuttal testimony.

Q. IS MR. CUMMINGS CORRECT THAT ONLY THE ARITHMETIC MEAN SHOULD BE CONSIDERED IN A CAPM COST OF EQUITY ESTIMATE?

A. No. As even Mr. Cummings admits at the outset of his long discussion of this issue, "...there is not universal agreement among finance academics and practitioners." This, some believe that the arithmetic mean is appropriate, some believe the geometric mean is appropriate. Both means are published by the same data source (Ibbotson Associates) and are equally available to investors. The decision to use both the geometric and arithmetic mean market risk premium is supported by both theoretical and practical reasons.

Q. WHAT, THEN, IS THE NEXUS OF MR. CUMMINGS' CONCERN REGARDING THIS ISSUE?

A. Because Mr. Cummings admits that both the geometric and arithmetic means are supported in the literature and because this issue is relegated to one portion of a methodology which I believe should be used only in a corroborative role in ratemaking, and because I have already discussed this issue in some detail, my discussion here will be brief.

As is invariably the case with economic theory, the assumptions used to construct the theory are an extremely important part of the whole, and the rationale on which Mr.

[2] Cummings Rebuttal. Exhibit PCC-01, pp. 1, 2.

Cummings bases his support for the use of arithmetic averaging is no exception. One key assumption on which the arithmetic-is-best logic lies is illustrated by the decision tree shown on page 2 of Mr. Cummings' rebuttal Appendix I. That decision tree logic represents the investor's decision with a hypothetical scenario in which she has an equal chance of earning a return of +30% or –10% in any one year. That scenario gives rise to the "most common outcome" (the geometric mean) but, according to that logic, the "expected return" is the arithmetic mean, which due to the uncertain probability distribution of returns is a larger number than the geometric mean. This economic theory holds, then, that the arithmetic mean is the proper return to use for cost of capital purposes because it purportedly represents investors' expectations.

It is important to remember that I do use the arithmetic mean in my CAPM analysis, so I do not completely discount the logic extant in the decision tree theory. However, that logic has problems that Mr. Cummings does not discuss. Key among those problems is that the decision tree theory assumes that each possible outcome in any period (the +30% or –10% returns in Mr. Cummings' Appendix I, p. 2, decision tree) is statistically independent from any other outcome. That is, the return in any one period is not dependent in any way on what happened the previous period, or related in any way to any alternative return that might occur. As noted in the Copeland text cited in my Direct Testimony, that turns out to be an assumption that is disputed in the literature of financial economics. In constructing their own version of the decision tree logic discussed above those authors note:

> "To contrast the geometric and average [arithmetic] rates of return, we can go back to the earlier example where we observed two periods of return, the first with a rate of return of 100 percent and the second with –50 percent. What can we infer from these data? *If we are willing to make the strong assumption that each return is an independent observation from a stationary underlying probability distribution*, then we can infer that four equally likely return paths actually exist: 100 percent followed by 100 percent, 100 percent followed by –50 percent, -50 percent followed by 100 percent and –50 percent followed by –50 percent. These possibilities are illustrated in Exhibit 8.5 [a decision tree, omitted]. The shaded area represents what we have

> actually observed [the geometric mean], and the remainder of the binomial tree is what we have inferred by assuming independence....
>
> Finally, empirical research by Fama and French (1988), Lo and MacKinlay (1988), and Poterba and Summers (1988) indicates that a long-term negative correlation exists in stock returns [footnote omitted]. *Hence, historical observations are not independent draws from a stationary distribution.* (Copeland, T., Koller, T., Murrin, J., Valuation, Measuring and Managing the Value of Companies, 2nd Ed., Wiley & Sons, New York, 1994, pp. 262-3, emphasis added)

Therefore, while the decision tree logic appears compelling, a key assumption on which it rests is at odds with evidence available in the financial literature[3].

There are many other reasons offered in my Direct Testimony (pp. 34-36) regarding practical shortcomings of an arithmetic average which I will not repeat here. In addition, it should be noted that, in my Direct Testimony, I discussed other available estimates of long-term market risk premium data which indicate that the Ibbotson data (including the lower geometric mean) may substantially overstate the actual market risk premium investors utilize. Mr. Cummings makes no comment regarding that testimony.

In sum, as I noted in my Direct Testimony, while the arithmetic average market risk premium should be considered in developing a CAPM cost of equity estimate, it should not be given exclusive consideration. Mr. Cummings' dissertation on this issue, while interesting from a theoretical viewpoint, does not support his rebuttal position that the Commission would be better served or that the CAPM cost of equity would be more accurate by relying on only part of the data available to investors. All of the available data—both the geometric and arithmetic average market risk premiums—should be used in calculating a CAPM cost of equity capital.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes, it does.

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[3] It is also noteworthy that the financial literature cited by Copeland, et al, (late 1980s) is substantially more recent than that of Blume (1974) on whose work Mr. Cummings relies most heavily.

EXHIBIT
5-20
Admitted

ARIZONA CORPORATION COMMISSION STAFF'S RESPONSES TO COX ARIZONA TELCOM, L.L.C.'S SECOND SET OF DATA REQUESTS TO COMMISSION STAFF/QWEST CORPORATION RE PROPOSED SETTLEMENT
DOCKET NO. T-01051B-99-0105
NOVEMBER 13, 2000

Cox 2-3 Has Qwest prepared a TSLRIC study for each of the Basked 1 and Basket 3 services and service packages? Has the ACC examined and approved all such Qwest TSLRIC studies?

RESPONSE: **In all cases that Staff has requested a TSLRIC study, Qwest has provided that information to Staff. The ACC has not approved Qwest TSLRIC studies for all possible services and packages. The Staff has looked at some TSLRIC studies. An analysis of certain cost studies is also contained in Mr. Dunkel's Direct Testimony and Schedules on Rate Design, which has already been prefiled in this proceeding, including, but not necessarily limited to pages 43-46 and Schedules WDA-18 and WDA-19. Other than that testimony, the Staff may have filed other testimony or reports which contain in other proceedings, an analysis of whether or not cost studies filed by Qwest are appropriate. Any wuch Staff testimonies or reports would be a matter of public record. Staff has reviewed the methodoloty used by Qwest to support its TSLRIC filings and has thoroughly reviewed studies provided by Qwest to support proposed rates. Based upon past filings, Staff has found that Qwest's TSLRIC studies tend to more than support its proposed rates.**

Respondent(s): **William Dunkel, ACC Consultant; Wilfred M. Shand, Jr., Chief Economist, Arizona Corporation Commission**