Exhibit No.:	
Issue:	Rate of Return
Witness:	John C. Dunn
Sponsoring Party:	BPS Telephone Company
Type of Exhibit:	Rebuttal Testimony
Case No:	TC-2002-1076
Date Testimony Prepared:	January 12, 2005

Before the Public Service Commission of the State of Missouri

BPS Telephone Company
Case No. TC-2002-1076

Rebuttal Testimony

of

John C. Dunn

January 2005

Before the Public Service Commission
of the State of Missouri

Staff of the Missouri Public Service Commission,	)	
	)	
Complainant,	)	
	)	
v.	)	Case No. TC-2002-1076
	)	
BPS Telephone Company,	)	
	)	
Respondent.	)	

AFFIDAVIT OF JOHN C. DUNN

State of Kansas)
) ss.
County of Johnson)

John C. Dunn, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of John C. Dunn"; that said testimony and attached schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

John C. Dunn

Subscribed and sworn to before this 10 day of January, 2005.

Leanna West
Notary

LEANNA WEST
Notary Public
State of Kansas
My Commission Expires 4-1-07

REBUTTAL TESTIMONY OF
JOHN C. DUNN
ON BEHALF OF
BPS TELEPHONE COMPANY

CASE NO. TC-2002-1076

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REBUTTAL TESTIMONY OF JOHN C. DUNN
ON BEHALF OF
BPS TELEPHONE COMPANY
MISSOURI PUBLIC SERVICE COMMISSION
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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is John C. Dunn. My business address is 7400 West 110th Street, Suite 750, Overland Park, KS 66210.

Q. What is your occupation?

A. I am an economist and partner in the firm of John C. Dunn & Company. I am an economic consultant specializing in the general area of public utility economics and corporate finance with special emphasis on the analysis of capital cost, capital structure and rate of return.

Q. Have you prepared a statement of your qualifications and background?

A. Yes, I have. It is attached to this testimony as Appendix A.

Q. What is the purpose of your rebuttal testimony?

A. I have been retained by BPS Telephone Company ("BPS" or "Company") to determine a fair and reasonable rate of return for its Missouri intrastate operations.

Q. Please summarize the results of your rate of return determination.

A. BPS Telephone Company is a small, rural telephone company serving three (3) small communities in Southeast Missouri (i.e. Bernie, Parma, Steele). After analyzing the circumstances of the Company, the nature of the industry and the fairly substantial competitive threat to BPS, I have concluded that BPS is entitled to a rate of return of at least 11.25%, in the current economic environment.

Q. How did you make this return determination?

A. I analyzed the circumstances of the industry and more specifically the circumstances of BPS. Based upon this analysis, my review of the operations of BPS, its current level of income and what I understand to be its access to new capital, I have concluded that BPS is entitled to a rate of return at least equal to the rate of return authorized by the Federal Communications Commission ("FCC") in its Docket No. 98-108, and recently reaffirmed in Docket No. 04-372, of 11.25% for interstate services for local exchange carriers.

Q. What risks did you find related to the operations of BPS?

A. BPS is a very small company, operating in an industry dominated by giant companies. BPS is also operating in an industry which has significant technological change unfolding on a continuous basis. Even new companies, based on technological innovations, are larger than BPS. BPS faces actual, not just potential, competition from wireless, internet and cable providers. BPS's facilities are fixed (i.e. not movable) while many of its competitors do not have to make such a large, local and non-movable financial commitment. BPS provides top-quality service to a service area which is neither diverse nor thriving.

Further, because of its small size, the Company is not protected by the diversity of services it offers, nor is it protected by geographic diversity, protections which are afforded to and enjoyed by all of the large companies in the same or similar business.

Q. You indicated that part of your determination was based on what you understood to be the access of BPS to new capital. What did you mean by that comment?

A. I have represented a large number of small utility companies for many years. These small companies have an extraordinarily difficult time raising new capital. Frankly, it is

easier to finance a car with GMAC than it is to finance capital additions for a small utility company. Lenders, even when they are inclined to make loans to a small utility company, are constrained by a number of factors. First, they are constrained by the fact that these small utility companies tend to have non-movable assets that are either buried in the ground or in some way connected to a small piece of geography. Hence, the assets securing the loan are not easily marketable and really are not security in the traditional sense in that they can be taken by the lender in the event of default. Further, these assets are highly risky and subject to obsolescence of many different types including technological obsolescence and competitive obsolescence. In addition, the small companies are usually subject to the jurisdiction of a single regulatory Commission and consequently, the small company's financial health rests entirely with a very small group of decision makers. Also, there is usually no diversity either in product or customers.

Finally, the size of the loans sought are very small by utility standards, and this small loan size is generally inadequate to meet the efficiency criteria of lenders. Typical lenders like to loan larger amounts of money to lower risk entities, so that the lender's overhead cost is spread over a larger loan improving profit margins or increasing the contribution of a loan to overhead reduction. Said another way, loaning $1 million or $5 million to a smaller company has costs, in terms of staff time and analysis, which are almost as much, and in some cases more, than the costs to loan hundreds of millions of dollars to large companies.

Q. How can it cost more to make a small loan to a small company as compared making a large loan to a very large company?

A. Large loans tend to be broken up between many lenders, and the lenders tend to share and rely upon each other's analysis. On the other hand, in the case of a small loan to a small company, usually only a single lender is involved and that single lender must provide all of the analysis for the loan decision-making process. Since all of the analysis for a loan, regardless of the size of the loan, is about the same, the single lender for the small loan has in many cases greater costs to originate the loan as a percentage of the amount loaned.

Q. Have you prepared testimony and schedules which detail your analysis for BPS?

A. Yes, I have.

Q. Are those schedules attached to your testimony?

A. Yes, they are.

Q. Were they prepared by you or under your supervision and direction?

A. Yes, they were.

Q. Did you have any other assignments in this proceeding?

A. Yes, I did.

Q. What was that assignment?

A. Mr. Matt Barnes of the Staff of the Missouri Public Service Commission ("Staff") provided direct testimony in this proceeding recommending a rate of return for BPS. In addition to developing a rate of return requirement for BPS, I was given the responsibility of reviewing and analyzing the Staff testimony and providing rebuttal on that testimony for this proceeding.

II. REBUTTAL TO STAFF RETURN TESTIMONY

Q. How will you structure your rebuttal testimony?

A. First, I will discuss the end result of the Staff's comparable company analysis. Staff conducted three (3) separate studies, a Discounted Cash Flow ("DCF") study, a risk premium study and a Capital Asset Pricing Model ("CAPM") study. Those studies produced radically different answers; nonetheless, the Staff accepted the results without question and used the results, weighting all three (3) studies together, to reach its conclusion. I will show how the process of weighting, as employed by the Staff, is entirely arbitrary and, at the same time, how the weighting itself influences the Staff's recommendation. For example, minor changes in the weighting can produce significant changes in the Staff's recommended return on equity.

I will also discuss the Staff's use of comparable companies. The reality is that the Staff comparables are not in the least bit comparable to BPS. Nonetheless, the Staff accepted the results of these non-comparable company analyses without a comparative risk analysis and without a general risk adjustment for the higher level of risk of BPS compared to the non-comparable, big companies in its analysis. Without consideration of the risk reducing benefits of geographic and customer diversity enjoyed by the "comparable" companies, the Staff simply used the result of the comparable company analyses to arrive at a recommendation of a return. Ironically, the Staff did make a punitive adjustment to reduce its recommended return for what it perceived to be a difference in financial risk, again without taking into consideration the much higher business risk of BPS compared to Staff's comparable companies.

After I discuss the non-comparability issue, I will discuss the underlying calculations for the studies, primarily the DCF Study performed by the Staff, and deficiencies in those calculations. Finally, I will discuss the Staff's de-leveraging of the

"Staff comparable companies" to produce what the Staff considers to be comparability on the issue of capital structure between the Staff comparable companies and BPS.

I will also point up the lack of a critical review by the Staff and how the absence of the thoughtful consideration of the results is a significant problem at the point of end result. In this connection, there are three studies and three very different results all accepted by the Staff without comment or explanation, in spite of the fact that the big differences in results cry out for further review. In addition, the end result of the Staff analysis and recommendation does not meet the test of common sense, but again is accepted without review or further consideration.

Q. What do you conclude about the Staff's comparative analysis?

A. The Staff's ultimate recommendation is based on its conclusion that BPS, a small company with easily observable high levels of operating risk, is less risky than SBC Corp., Bell South or Verizon. Based on this fact alone, I believe that the Staff analysis is without merit and should be rejected in its entirety.

In addition, the Staff has made a leverage risk adjustment in this case. In cases involving the other Missouri utilities with which I am familiar, the Staff has always rejected such an adjustment. The only discernible difference here is that the adjustment reduces the recommended return on equity while in other cases, the adjustment would generally increase the recommended return.

A. Staff's Methodologies and Results

Q. What is the end result of the Staff analysis?

A. The Staff conducted three (3) separate sets of calculations. It performed a discounted flow calculation (DCF), a capital asset pricing model (CAPM) calculation, and a risk premium analysis. The results of the three (3) separate analyses are as follows:

Method	Indicated Cost of Common Equity
DCF	9.20%
CAPM	11.67%
Risk Premium	19.03%

Q. What is your reaction to these results?

A. The results of the three (3) methodologies bear no similarity to each other. The CAPM result is more than 25% greater than the DCF result and the risk premium result is more than 2 times greater than the DCF result. The Staff, after reviewing this array of results, said that it placed the greatest reliance on the lowest result, the DCF analysis, and gave it the greatest weight in reaching its conclusion - - i.e. 75%. But more important is the fact that, given the vast differences in results, only one, but certainly not all three (3) of these results, can be correct. In short, it is simply not possible that an accurate DCF analysis would indicate a cost of common equity that is less than one-half of an accurate risk premium analysis. The variety and discrepancy in results indicates that none of this work is of value. As I will show later, this pattern of results does not meet the test of common sense nor meet the purpose of multiple calculations.

Q. What do you believe the Staff should have done when confronted with the discrepancies in the three (3) results?

A. It should have analyzed the methodologies, as well as its comparable companies, and then determined, to the extent possible, why the differences are so radical.

Q. Will you do that?

A. Yes. I will critique but not completely reproduce the studies. Further, I will spend more time discussing the DCF analysis than the other two analyses because, I believe, it is the most flawed. I will show how the DCF analysis is incorrectly applied and historically weighted and how those two problems cause the analysis to produce this inaccurate result which is too low. The analysis also includes random and incorrect data.

Q. Does the Staff recommendation of a return on equity of 8.76% for BPS meet the test of common sense?

A. It does not. The current cost of debt for a company such as BPS, if the company were attempting to borrow 90% of its capital requirement would greatly exceed 8.76%. In fact, although there is no recent experience in the State of Missouri for small telephone companies attempting to borrow such large percentages of capital, there is some experience with large companies with poor bond ratings borrowing on the open market and those borrowings have had interest costs in the teens. This indicates beyond any reasonable doubt that an 8.76% estimate of the cost of common equity is out of line with the current marketplace. The cost of equity is simply not less than the cost of debt for the same company.

Q. Please explain that last statement.

A. It is a well accepted fact that the cost of debt to a company is less than its cost of equity. Consequently, a company should be able to replace its equity with debt at a cost less than the allowed or authorized cost of equity up to a point. At the present time, BPS has approximately 10% debt in its capital structure. Ninety percent of its capital requirements is supplied by equity, which is not unreasonable for a company this size. BPS has about $9 million in total capital at June 30, 2004. Borrowing significant percentages of a total

capital requirement for a small company such as BPS is extraordinarily difficult and the costs are high. If BPS were to try and borrow 90% of the funds it needs to meet its capital requirements of $8.9 million, it is my best estimate that those funds would cost at least 15%, maybe much more. This is almost twice the 8.76% which the Staff has recommended as the cost of common equity for BPS.

Q. Is this a common sense approach to evaluating the Staff's cost of equity?

A. It is. Consider if this company went to borrow capital today, what would it be forced to pay to borrow 90% of its capital requirements? Could it borrow that money for 8.76%? Clearly, I think anyone involved with the capital markets would say "no." Furthermore, I don't believe BPS could borrow, without some outside guarantee, even 50% of its capital requirements for less than 12.5%, particularly since we are in a raising cost capital market.

Q. What is the average cost of debt for publicly traded debt for other companies which you believe might have some degree of comparability to BPS?

A. Based on data from the Wall Street Journal dated November 26, 2004, Charter Communications notes currently trade at a yield of 14.4%, with a maturity in 2009. Delta Airlines has notes which produce a yield of 25.5% and Capeline Energy Canada has notes which mature in 2008 and trade to produce a yield of 21.4%. While these companies are less than investment grade, it is clear that the cost of capital can be quite high and it makes no sense for the Staff to estimate a cost of equity which is less than a potential cost of debt for this Company. Incidentally, BPS's notes would also be less than investment grade, particularly if it was attempting to obtain 90% of its financing as debt.

Q. How does the end result recommended by the Staff from the analysis of the comparable companies compare to the actual forecasted return on equity for the comparable companies as published by Value Line?

A. The Staff has four (4) comparable companies. Those companies have a forecasted average return on equity by Value Line Investment Service of 13.7%. This compares to the Staff "weighted" cost of common equity of 10.55% for the comparable companies and a recommendation of 8.76% return on equity for BPS. In essence, what the Staff is stating is that its comparable companies are forecasted to significantly over-earn.

Q. Can you be more specific with respect to the forecasted returns of the individual companies?

A. Yes. The forecasted returns on equity for the individual companies as shown by the Value Line Investment Service, dated October 1, 2004, for the year 2004, is as follows:

Table 1

Staff Comparative Companies

Value Line Forecasted Returns on Equity

Company Name	Forecasted Return on Equity
Bell South Corp.	15.5%
CenturyTel Inc.	10.0
SBC Communications	13.2
Verizon Communications	16.0
AVERAGE	13.7

Clearly the Value Line forecast for returns on equity for the comparable companies is much higher, in fact almost 50% higher, than the Staff indicated DCF cost of equity. The Value Line forecast is a real reflection of investors' expectations. The effect of that expectation is built into the market price of the stock of each of these companies. If the expectation is not met - - if the companies do not produce the expected or forecasted

return -- the price of their stock will drop and the DCF cost of equity calculated in the Staff analysis would increase significantly.

Q. Is the Value Line publication used by the Staff in its analysis?

A. Yes. The Value Line Investment Service is the primary source used by the Staff in its DCF analysis and is a source for a substantial amount of the data used by the Staff throughout its analysis. The Value Line Investment Service is a well regarded publication and its historical data is considered acceptable for financial analysis. .

Q. You indicated that the Staff made its finding of 9.2% based upon its DCF analysis for the large telecommunications companies. Were there any adjustments to the DCF results for the large telecommunications companies or were the results accepted "as is"?

A. The results were simply accepted "as is" for the large companies. There did not appear to be any further review or analysis to test the reasonableness of these results. This means, in the Staff's view, that the results of its DCF calculation are an accurate representation of the cost of equity for the large companies. In fact, the Staff's weighted cost of equity for the large companies of 10.55% was then reduced to 8.76% for BPS, based upon the comparison of the BPS capital structure to the large companies' capital structures. This financial risk adjustment was made without any consideration given to the fact that BPS has much more business risk than the large companies. Incidentally, the results of the risk premium analysis and the results of the CAPM analysis were also accepted "as is" by the Staff.

Q. What is the implication of accepting the DCF result as an accurate cost for the large telecommunication companies and then reducing it to develop the recommended rate of return for BPS?

A. The overall implication is that BPS is much less risky than the large companies. Specifically, the Staff is stating, by its conclusion, that it believes that BPS has lower overall risk than Bell South, SBC Communications, Verizon and CenturyTel. In my opinion, this is such an obvious misunderstanding of the real world on the part of the Staff, that it invalidates all of its work in this case.

Q. There is considerable discussion in the Staff analysis about equity ratios. What is the equity ratio associated with these comparable companies' returns on equity?

A. The equity ratios for the four comparable companies for 2004, taken from the Value Line publication dated October 1, 2004, are as follows:

Table 2

Staff Comparative Company Equity Ratio

Company Name	Equity Ratio
Bell South Corp.	65.0%
CenturyTel Inc.	52.0
SBC Communications	72.5
Verizon Communications	34.5
AVERAGE	56.0

B. Staff's Weighting of Results

Q. Did the Staff employ a weighting process in determining a final recommended return for the Commission?

A. Yes, but it is entirely arbitrary. On Schedule 13 attached to Mr. Barnes' direct testimony, the Staff takes the results of each of the three (3) analyses and weights them according to a formula that is apparently of Staff's own choosing. The DCF result is weighted 75%, the CAPM result is weighted at 15%, and the risk premium result is weighted at 10%.

Q. Is there a basis for the selection of these weights?

A. No. It is entirely arbitrary. I know of no authoritative text or treatise that supports this weighting.

Q. Is the final recommendation sensitive to the weighting methodology?

A. Yes. Consider, for example, if the weighting were reversed and the risk premium was weighted 75% and the DCF weighted 10%. The recommended return, instead of being 10.55% for the comparable companies, would be 16.94%.

Similarly, if the three separate results were simply weighted equally, the end result would be 13.30%. Incidentally, 13.30%, as a recommended return, is very close to Value Line's forecasted return for these companies of 13.7%.

It is significant that the Staff is not even recommending what it has calculated as a weighted cost of common equity for the comparable companies as the return on equity for BPS. Staff has adjusted its weighted cost of equity of 10.55% for its comparables downward for BPS to a level of 8.76%; a return which, as I indicated earlier, is so low as to be totally without merit.

It is also significant that the Staff has accorded such a low weighting to some of its results. That implies that the staff questions the worth of the calculations.

Q. Is the purpose of making separate calculations of the cost of equity to develop separate estimates of the cost of capital and then weight them together?

A. It is not. The primary purpose of doing separate calculations of the cost of equity is to check the results of one against the other. Said somewhat differently, the analyst can perform a DCF calculation of the cost of common equity and then it is appropriate for the analyst to check or verify the reasonableness of that result. The check or verification would be another calculation of the cost of common equity or a study of capital markets or

other Commission findings. The purpose of the second calculation is not simply to develop another number to weight or average with the first. This is a misuse and inappropriate approach to the determination of the cost of common equity.

Q. What does the pattern of the Staff results for the three analyses suggest?

A. That the Staff's DCF result is too low and should be adjusted upward by a significant amount.

C. Staff's Comparable Companies

Q. You have repeatedly suggested the Staff's comparable companies are not comparable in any way. What is the basis for that assertion?

A. The comparable companies employed by the Staff are very large, in fact huge, as compared to BPS. The comparable companies enjoy geographic diversity, service diversity, and the risk moderating power of financial heft. These large companies are much less risky than BPS and consequently are not "comparable companies" appropriate for use in a cost of capital analysis of BPS, unless there is a significant upward adjustment to the end result to compensate for the much greater risk of BPS.

Q. Could you be more specific? For example, what are the characteristics of Bell South which contrast with the characteristics of BPS?

A. Bell South is one of the regional holding companies resulting from the breakup of AT&T in 1984. One of its subsidiaries, Bell South Telecom, serves customers in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North and South Carolina, and Tennessee, a total of nine states. Bell South is also in a joint venture with SBC Communications that provides wireless service throughout the country through Cingular Wireless. It has 11.5 million customers in 10 Latin-American countries and 13.3 million

access lines in its U.S. service area. Its wireless revenue, excluding Cingular, is 22% of its total revenue which is almost $25 billion. Its market capitalization is over $50 billion as compared to BPS's total capitalization of less than $9 million. Bell South's forecasted return on equity for 2004 is 15.5%, after coming off calendar year 2003, when it earned 19.5%. It is forecasted to earn 15% in 2005 and average a 16% return in 2007 – 2009.

Q. How does its size protect Bell South and make it less risky than BPS?

A. First, Bell South offers a wide variety of services. It offers competitive service bundles which include local, long-distance, wireless, data and video. It also offers each of these services individually and it offers them to a very large population base located in nine states and several foreign countries. A modest decline in one area of its business (and the company is losing residential access lines, as are most telephone companies including BPS), is easily offset by other services, particularly wireless telecommunications services which is the typical destination of the customer mitigation from traditional landline. BPS, on the other hand, does not enjoy this type of offsetting flexibility and diversity of services. The core of BPS's business is residential access service. While it does offer other services, at wholesale, it does not offer cellular, nor does it offer the wide variety of bundled packages over a large geographic area. When analyzing these companies one just can not ignore that BPS serves three (3) relatively small communities in Southeast Missouri, while Bell South serves 9 states and 10 Latin-American countries with far more services and far more customers.

Q. Does this size mean anything else?

A. Yes. Aside from the impact of a loss of revenue in one line of business and the ability to offset that loss with growth in other lines of business, Bell South has the financial heft to

offset an erosion in its top line, i.e. revenue deterioration, with reductions in cost. Bell South has approximately 75,700 employees. BPS has 15 employees.

Q. How has the Staff compared BPS to Bell South?

A. The Staff has chosen Bell South as one of its comparable companies. The Staff, by the way it has conducted its analysis, has concluded that BPS is a less risky company than Bell South by virtue of the fact that, all of these other factors notwithstanding, BPS has a somewhat higher equity ratio and consequently, in Staff's view, is a more secure company.

Q. What is your reaction to that conclusion?

A. I believe it defies common sense. There is no question that BPS has operations which are significantly more risky than the Bell South operations. Furthermore, BPS lacks the diversity of geography and services that is enjoyed by Bell South. Finally, to focus on a single element such as leverage and then adjust the return downward declaring that, in fact, BPS is less risky than Bell South makes the analysis, on its face, readily suspect.

Q. How do the other Staff comparable companies compare to BPS?

A. SBC, with a market capitalization of $87 billion, is about 1.7 times the size of Bell South. Verizon, with a market capitalization of $112 billion, is about 2.25 times the size of Bell South. The only small company in the group, with a market capitalization of $4.5 billion dollars, is CenturyTel, which, in spite of the fact that it is the smallest of the four "comparable" companies, is still many, many times larger than BPS Telephone and has much greater geographic diversity (it serves 22 states in the South, Midwest and Pacific Northwest) and offers services which are very diverse as compared to the offerings of BPS. In fact, CenturyTel has joined up with Echo Star, a satellite video provider, and

Cingular, a wireless operator, to provide bundled services which may, at some point in the future, be available in the BPS service area. Thus, CenturyTel may be able to compete with BPS and take BPS customers by offering attractive packages of services which BPS can not counter.

Q. Please summarize your testimony on the comparability of the four (4) companies Staff uses to estimate an appropriate return on equity for BPS.

A. The four (4) "comparable" companies used by Staff are huge in comparison to BPS. The capitalization of the four comparable companies is measured in the billions, and in one case the hundreds of billions, against the $9 million capitalization of BPS. The comparable companies enjoy substantial geographic diversity. BPS serves three communities which are small and located in relatively close proximity to each other. The comparable companies offer a wide variety of services, whereas BPS's relies primarily on its provision of access service to residential and long distance customers. The so-called comparable companies are financially hefty and consequently capable of absorbing declines in one product line and offsetting those declines with gains in other product lines or with reductions in expenses. BPS does not have that luxury, offering only a limited list of services with a very small workforce.

All of the comparable companies have publicly traded debt and equity which provides the risk reduction of marketable securities and, for the company, the benefits of much better access to capital of all types. BPS has no such publicly traded securities and as a result has a much more difficult time raising new capital. In addition BPS does not have access to new and novel capital sources like those available to the big public companies. Finally, each of the comparable companies has available to it the services of

banks, investment bankers, brokerages, and other financial institutions, all seeking to provide services to the comparables. BPS is so small it is difficult for it to obtain any financial services and almost impossible to obtain capital.

Q. How does this affect the Staff analysis?

A. The Staff has not analyzed or even looked at any of these factors in reaching its conclusions. It made an analysis of data available for a group of seven Value Line telecommunication companies. The selection of the four comparable companies from the group of seven appears primarily based upon the convenience of the Staff in making the calculations to which it is committed by the rigid and arbitrary format used in its exhibit.

Q. What were the Staff criteria in selecting the comparable companies for its analysis of the required return?

A. The first Staff criteria for selecting the companies was the fact that the stock be publicly traded, and second that the information be published in Value Line. Neither of these criteria are met by BPS. (The entire range of criteria is published on Staff Schedule 1.) These criteria do not address the risk differences between the so-called comparables and BPS. In fact, I find no discussion in the Staff testimony of the problems facing a small telecommunications company in Missouri, as compared to the relatively giant companies included in its comparable group. In my view, this relegates the entire Staff analysis, once it is corrected, to nothing more than a point of reference as opposed to an actual tool for arriving at an appropriate recommendation.

Q. When you say point of reference, what do you mean?

A. The Staff comparables are, in fact, in the telecommunications business and, after corrections, the Staff analysis may give an indication of the benchmark cost of equity for

large telecommunications companies that can become a point of reference in determining the appropriate cost of equity for a company such as BPS. It is, however, simply wrong to perform an analysis based on a conclusion that BPS Telephone Company is less risky than Bell South, SBC or Verizon.

Q. Mr. Dunn, you indicated that you are now going to examine the actual calculations involved the Staff analysis. How will you proceed to answer?

A. First, I will review the Staff DCF calculation.

D. Comments on Staff's DCF Calculations

Q. What do you find incorrect about the Staff DCF calculations?

A. First, as I clearly stated, I believe that the Staff has used the wrong companies as comparables for an analysis of BPS's cost of equity. They are, in no way, comparable to BPS and are not appropriate as comparative vehicles unless very substantial adjustments are made. In addition, I find that the Staff's DCF analysis contains the following serious flaws:

- **The dividend growth rate distorts the calculation and it should be eliminated from the calculation. If it is eliminated from the calculation the estimated cost of equity is increased.**

- **There is a substantial discrepancy between the Staff calculated "expected return on equity" on Schedule 5 and the Staff recommended return on equity which is based in part on the expected return.**

- **The sustainable growth rate as used in the calculations is circular.**

- **Schedule 7 inappropriately includes a negative growth rate in the calculation - If the negative growth rate is eliminated on Schedule 7, the cost of equity is increased significantly.**

- **There is no flotation or pre-offering adjustment to the calculated cost of equity. If the appropriate adjustment is made the cost of equity is increased.**

- **There is no adjustment to the indicated cost of equity to reflect the huge difference in business risk between BPS and the comparable companies. If this adjustment is made, the cost of equity is increased significantly.**

Individually, each of these items, if corrected, would raise the Staff recommendation. If all of these items were corrected, the effect would be a significant increase in the Staff recommendation.

1. Staff's Growth Rates

Q. Let us discuss these points one at a time. First, how does dividend growth rate distort the calculation?

A. The Staff has a series of growth rates taken from the Value Line Investment Service on Schedules 4-1 through 4-4. However, the Staff presentation does not allow for a comparison of the growth rates. If the growth rates are organized onto a single Schedule, so that they can be compared, the average growth rates for dividends per share (DPS), earnings per share (EPS) and book value per share (BVPS) taken from Schedules 4-1 through 4-4 are as follows:

Table 3

Summarized Staff Growth Rates

Type of Growth	Growth Rate
DPS	3.25%
EPS	7.00
BVPS	9.00

Clearly the DPS growth rate is significantly different from, and out of line with, the other average growth rates. The DCF model anticipates that the growth rates in earnings, dividends and book value per share will, over a reasonable period of time, move in

tandem and be very similar to each other. Here the DPS growth rate is less than one-half of the EPS growth rate and only about one-third of the BVPS growth rate. Obviously the dividend growth is an anomaly and should be excluded from the calculation. If the dividend per share growth rate is excluded because it does not represent the underlying growth which is being experienced by the shareholder as a result of the growth in the company, the average growth rate which would be included in the DCF calculation would be 8% rather than the 6.42% which the Staff has included in the calculation. This is a difference in the calculated return on equity of 1.5%. The growth rates shown on this table are calculated on Schedule JCD-1

Q. Is there an explanation for the lower dividend growth rate?

A. Yes. The comparable companies are, like many other companies in other industries, trying to maximize the retention of earnings to enhance growth, make acquisitions or implement new technologies. Furthermore, until the last year, the payment of large dividends was tax inefficient and not beneficial for the investor, particularly in an industry that was considered a growth industry.

2. The Inconsistency of the Assumed Expected Return

Q. What is the difference between the expected return on equity and the DCF results as calculated by the Staff?

A. In calculating the sustainable growth rate, the Staff uses an expected return on equity taken from Schedule 5 and used in the calculation on Schedule 6. Schedule 5 calculates an expected return on equity for the four companies as follows:

Table 4

Staff Comparable Company Expected ROE

Company	Expected Return on Equity
Bell South	16.25%
CenturyTel	9.50
SBC Communications	12.75
Verizon Corp.	16.25

The Staff used these relatively high expected returns to calculate a required DCF return on equity of 9.2%, which is lower than any of the data inputs. Clearly, these expected returns on equity calculated by the Staff using projected EPS and DPS are significantly higher than the recommended return calculated by the Staff using its DCF model. This discrepancy alone indicates that the result of the calculation is incorrect simply because the arithmetic does not match up. On the one hand, Staff assumes that the average expected return on equity is over 16% for two of the companies and over 12% for one of the companies, but, on the other hand, Staff's average calculated DCF return for the companies using that same data is only 9.2%. Clearly, this calculation is flawed and, so severely so, that the result is entirely unreliable.

3. Sustainable Growth Rate Calculation

Q. How does the sustainable growth rate add an element of circularity to the calculation?

A. The sustainable growth rate is a calculation of growth based upon expected returns on equity and expected dividends to be paid. This expected return on equity is calculated on Schedule 5 and included in Schedule 6 in the calculation of sustainable growth.

In order to calculate the sustainable growth rate, which in turn is used to calculate the recommended return on equity, it is necessary to know before the calculation is made what the return on equity will be. This means you must know the answer, i.e. the return on equity, before you can make the calculation of the return on equity. Clearly, this is circular, and this type of calculation has no place in this type of analysis.

4. Negative Growth Rate in the Staff Calculation

Q. Where did the Staff use a negative in its calculations of DCF growth rate?

A. On Schedule 7.

Q. What is the impact of the negative on the calculation?

A. It reduces the calculated growth rate and consequently reduces the ultimate calculation of the DCF cost of equity.

Q. Is it appropriate to include a negative growth rate in these calculations?

A. It is not.

Q. Why not?

A. The purpose of the DCF calculation is to estimate investor expectations. Investors do not buy securities on the expectation that they will decline, which is what is implied by the use of a negative growth rate in the calculation.

Q. What is the proper way to deal with a negative in the historic growth rates?

A. Either the company should be excluded from the entire analysis, or the individual data point should be excluded from the single calculation. If the other data on the company is acceptable, it is best to exclude the single data point from the calculation and use the balance of the company data in the other calculations.

Q. Please explain the impact of the negative on the Staff calculations.

A. Schedule 7 is the final summary Schedule used in calculating the DCF growth rate. This Schedule brings forward the historic growth rates in column 1 and averages them with the forecasted growth rates in Columns 2 thru 6 to produce the average historical and forecasted growth rates in column 7. The negative rate is in Column 5 and its inclusion causes the average of Column 5 of the Value Line growth rates to be out of line with the other averages on the Schedule. The average growth rate in Column 5 is 2.88% on this Schedule and the average of the other forecasted growth rates is 5.54%.

Q. How does that affect the result?

A. The inclusion of this negative reduces the growth rate that is included in the DCF cost of equity and ultimately reduces the Staff recommended return on equity.

Q. Are there any other problems with Schedule 7?

A. Yes.

Q. What are they?

A. The Value Line growth rate, even after it is corrected for the negative, is out of line with the other projections of growth. This is primarily a result of a fairly negative view on the part of Value Line for the prospects of Verizon as compared to the other telecommunication companies in the group. Since it is out of line and the cause is explainable, I would eliminate the Value Line projections from the calculations.

Q. What is the effect of that correction?

A. It increases the average of the projected growth rates from 4.67% to 5.55%. This correction combined with the corrected historical growth rates increases the combined historical and projected growth rates in the Staff analysis from 5.65% to 6.77%.

Q. What is the effect of correcting these growth rates on the Staff's DCF calculation?

A. It increases the DCF calculated return on equity shown on Schedule 9 from 9.20% to 10.25%.

5. No Preoffering Pressure and Flotation Expense Adjustment

Q. Finally, Mr. Dunn, would you please explain the lack of the flotation and pre-offering pressure adjustment?

A. An integral part of the DCF calculation of the cost of common equity is the inclusion of an adjustment for pre-offering pressure and flotation expense associated with sales of new common equity. The Staff has historically excluded this type of an adjustment in most cases and has omitted it in this case. There is no explanation as to why it has excluded an integral part of the DCF calculation. Omitting this adjustment from the DCF calculation causes the DCF indicated cost of common equity to be understated.

Q. Have you recalculated the DCF indicated cost of common equity using the correct data throughout?

A. Yes, but let me say first that I do not believe that the DCF calculation as presented by the Staff is appropriate for determining the cost of equity for BPS. However, at a minimum, I can say that if the modest corrections I have suggested to Staff's Schedules are made and the result is corrected for a lack of a pre-offering pressure and flotation adjustment, the DCF cost of equity shown on Staff Schedule 9 would be increased from 9.20% to 10.46%. The calculation of the 10.46% is shown on Schedule JCD-2.

Q. Why do you believe the Staff DCF analysis is inappropriate?

A. The Staff analysis is fundamentally incorrect. In part, it is the result of the calculation but, in addition, it has to do with the general assumptions used by the Staff throughout its calculation.

Q. What are those assumptions?

A. The Staff assumes that BPS is less risky than the giant companies it has selected as its comparables.

E. Recalculation of Staff Cost-of-Equity Weighting

Q. In spite of your reservations about the Staff analysis, please recalculate the Staff's cost of equity as they have weighted it on Schedule 13.

A. I have made that calculation of Schedule JCD-3 which is attached to my testimony. The limited correction to the cost of equity calculated with the DCF model and weighted with the results of the CAPM and risk premium analyses as Staff has done raises the cost of equity on Staff Schedule 13 from 10.55% to 11.50%.My calculation is shown on my Schedule JCD-3.

F. The Staff's Misuse of the Unlevered Beta

Q. Have you reviewed the Staff testimony beginning at page 14 of Mr. Barnes direct testimony and the related Schedules which deal with the issue of unlevering the beta to make an adjustment for differences in equity ratio between BPS, on the one hand, and Staff's comparable companies on the other?

A. Yes I have.

Q. What is your reaction to the approach of the Staff and its attempt to unlever betas to make an adjustment for differences in equity ratio?

A. I believe that the analysis is flawed and the end result of the analysis is inconsistent with reality. The Staff has not accomplished their objective and, in the process, has placed a great deal of misinformation in the record. More specifically, I believe that the Staff effort in this area is wrong for the following reasons:

- **The calculation incorrectly attributes all differences in both business and financial risk to leverage and here the business risk differences are very substantial.**

- **The study is spread over several years with inconsistent data sources and time frames causing inconsistency and inaccuracy.**

- **The end results of the study are logically inconsistent.**

- **The study is based on a theory which does not apply here.**

- **The study is inconsistent with prior Staff positions on leverage and financial risk.**

Q. Let's discuss these comments one at a time. What do you mean that the study attributes all of the differences in both business risk and financial risk to leverage?

A. The total company specific risk that is experienced by the shareholder is the sum of business risk and financial risk. These two types of risk, specific to the company and acting together relative to the market, form the company's beta. In contrast, the calculation used by the Staff assumes that all differences in beta are a result of, or attributable to, differences in leverage, or financial risk, and none to business risk.

In a pure play analysis with very close comparable companies, this assumption is not quite true but the error is acceptable. Here, however, the comparative companies are not even comparable to each other and are very different from the subject company, BPS. As a result there is a large and unknown error in the calculation from the basic assumption, because a large difference in business risk is attributed to leverage differences.

Q. What about the second concern, that the study is spread over several years and involves a great deal of conflicting data.

A. The study is contained on Schedules 14, 15 and 16 of the Staff exhibit. Presumably the three Schedules are supposed to work together to form a single, focused study. In fact, the Schedules do not form such a study. The material is taken from other studies with different dates and some different sources. As a result, the Schedules are not comparable to each other, nor are they consistent. As a result, the three Schedules taken together do not constitute a study. For example, the risk free rate in the study is based on January 2004 on one Schedule, September 2004 on another and April 2002 on the third. The beta used in the Schedules is from July 2004, October 2003 and April 2002. These different and non-comparable data points do not make a study but rather three pages of unrelated data.

Q. What about the third comment, that the results are inconsistent?

A. This can best be explained by an example from the Schedules. Schedule 15, like the other Schedules, contains an adjustment for leverage and a calculation of an unleveraged return on equity requirement. If the adjustment is converted into a change in return on equity attributable to a one point difference in the equity ratio, a significant discrepancy is revealed. For example, when the difference is calculated for Bell South, the adjustment is a .045% change in return on equity for each point change in equity ratio. If calculated for Century Tel, the difference is .061%; and if calculated for SBC, the difference is .058%. If these different adjustments are applied to Verizon, the differences in return are 2.96%, 4.01% and 3.81% for the same company for the same equity ratio. In other words, each company has a different impact on return on equity related to a change in equity ratio. Further the study results when applied to a single company produce different outcomes.

On a potential 3 percentage point adjustment, the difference is as much as 1.05 points or more than a 33% error. This is an excessive error and unacceptable.

Q. What about the fact that one company dropped out of the study for some reason and is not included in the entire analysis?

A. Verizon is not included in the entire study. The loss of one company in a study that includes a large number of companies is not much of a problem. However, in this study, there are only four companies and dropping one means losing 25% of the study companies. This is just not acceptable.

Q. What about the comment that the study is all theory and that there are no real world tests of the results?

A. The process of unlevering beta is a useful tool under certain circumstances that do not exist here. To use the tool it is necessary to have a very tight or close group of comparables that are highly comparable to the subject company. Even then there is some error. Here those conditions do not exist. There are large differences between the comparables and the subject, BPS, as well as differences between the comparables. This could lead to a very large error. Given the importance of the adjustment to BPS, the existence of such an error and the fact that we don't know anything about the size of the error, other than it's big, it is just unreasonable to apply to BPS given the importance of this determination to BPS.

Q. What about the inconsistency of the Staff position on leverage in this case as compared to the position Staff has taken in electric and gas cases?

A. Previously, the Staff has taken the position (in virtually every non-telephone case) that there should be no adjustment, as proposed by Staff in this case, for financial risk or

leverage differences. In the vast majority of those cases the adjustment would have led to an increase in the recommended return on equity. Here, the Staff adjustment for leverage leads to a reduction in the recommended return. Here, the Staff complies with one aspect of financial theory and elsewhere they ignore it. At best, I think that this is disingenuous.

Q. Should there be an adjustment for financial leverage?

A. There should, but there should also be a significant business risk adjustment for the much higher business risk of BPS. If both adjustments are properly made, and the return is derived accurately in the first place, the result should be fair. That is not the case here. Incidentally, awarding the same return as that authorized for SBC accomplishes all of these objectives, particularly the leverage adjustment.

III. DETERMINATION OF THE APPROPRIATE RATE OF RETURN

Q. Have you calculated an appropriate rate of return for BPS using corrected Staff data?

A. Yes I have.

Q. How did you proceed?

A. First, I made corrections in the Staff DCF analysis and after those corrections, recalculated the Staff proposed return on equity for BPS using the Staff weighting of the three results, without any adjustment for leverage. This calculation is on my Schedule JCD-3, page 1, which is the calculation of the cost of equity, and Schedule JCD-3 page 2, which is the calculation of the rate of return. I made this calculation with significant reservations because I believe that even with the minor corrections I made to the Staff analysis, the return on equity is understated.

In addition, I calculated a rate of return using the Staff methodology with the corrected DCF and equally weighting the DCF, the CAPM and the risk premium results.

In this calculation, I used the Staff capital structure and the Staff cost of debt. Next, I examined the theory of regulation and its implications for the appropriate rate of return for BPS. This examination and determination led me to an additional return for BPS which I believe is the most appropriate. Based on these separate approaches, I established an overall rate of return for BPS, which I believe, under the circumstances, is a reasonable rate of return.

Q. Please describe the first calculation.

A. Earlier I showed that the correction to the Staff DCF for the Value Line forecast and the abnormal historic growth rates resulted in a cost of equity using all other Staff inputs of 10.52%. Using the Staff capital structure, the Staff weighting and the Staff cost of debt, this return on equity resulted in an overall rate of return of 10.94%. This calculation is shown on Schedule JCD-3 page 2.

Q. Please discuss the equal weighting calculation.

A. I used the weighting approach of the Staff shown on Staff Schedule 13. I replaced the DCF cost with the corrected DCF calculation, that I described above, and I weighted each result equally. I then calculated a rate of return using the Staff's capital structure and the cost of debt. The resulting rate of return is 14.33%. The calculations are shown on Schedule JCD-4.

Q. Please describe your further analysis of the rate of return requirement for BPS telephone.

A. The second general approach is based on the theory of regulation. Under this generally accepted theory, the regulatory process is designed to produce returns and costs for regulated companies which would parallel those returns and costs that would be produced

or achieved if the market for the regulated goods and services were competitive or the market did not have the characteristics which prompt the need for regulation.

Q. What are the main characteristics of the competitive marketplace which is relevant here?

A. Under the competitive market structure, companies are "price takers." They have no control over market prices. Consequently, the revenue per unit of delivered service for each of the competitive participants in the market place is the same, i.e., every company in the same market receives the same revenue for a particular unit of service.

Q. How does this translate into the determination of an appropriate rate of return?

A. The Staff, in its analysis of the operations of BPS has essentially determined that its adjusted operation and maintenance costs are reasonable and appropriate. This means that if the revenue received by BPS were the same as the revenue received by other telecommunications companies in providing similar services, the return produced by BPS's operations would be the same as the return produced by those other operations plus or minus very small differences for small differences in geography and location assuming that other companies were equally efficient in the delivery of the same services (locational cost differences excluded).

Said somewhat differently, the rate of return which BPS should receive is exactly the rate of return which SBC would receive for the same service and, for our purposes here, that rate of return can be assumed to be the one that has been authorized by this Commission.

Q. What was the last return this Commission found for SBC?

A. In Case No. TO-2001-438, a case involving the pricing of unbundled network elements, the Commission found that a return on equity of 13% was appropriate when combined

with a 70% equity ratio. Although there are some differences between the determination there and this case, the return is informative and not out of line with the proper answer here.

Q. Is it reasonable to make this type of competitive assumption for the market in which BPS operates?

A. I believe it is. The telecommunication business is the most competitive of the regulated industries. There is competition between individual services. There is also intense competition from companies which are not regulated but provide similar or substitute services, such as wireless service and now a new, potentially potent form of competition from Voice Over Internet Protocol (VOIP). In fact, VOIP is no longer a potential threat in that it is being offered to most of the country now and will certainly be offered in the BPS service are soon.

Q. How are different services offered by the same company substitutes for each other?

A. The offering of DSL by a local company is competitive with the offering of an individual subscriber line by the same company.

Q. What about the impact of size on the cost of equity in this context?

A. There is a substantial body of literature which indicates that small companies have greater risks than large companies. Early in this testimony, I discussed the fact that smaller companies lack the diversity in geography or service area, diversity in services supplied and other advantages enjoyed by large companies which makes the small company more risky than the large company. This fact entitles the small company to a greater return, all other things equal. For example, in the Staff approach, although they did not make such an adjustment, a size adjustment would absolutely be required by the logic of its approach,

and it would be substantial. I have not made such an adjustment here however, because, under the competitive market approach, there is no buildup or separate determination of the cost of equity under this approach. Rather a company simply receives in the way of a return what the market is willing to pay.

Q. Hasn't the Staff taken an opposite approach here?

A. Yes. The Staff has basically said that BPS should have the same return as Southwestern Bell, Verizon or another giant company adjusted downward for the fact that BPS has less leverage than these companies. However, as I discussed earlier, Staff has overlooked the fact that these companies do not have nearly the level of business risk as BPS. Consequently, the Staff only did half of its work and then applied it incorrectly.

Q. Is there any time in your analysis when an adjustment for a size difference is appropriate?

A. Yes. When the return is developed using the comparative approach and when the comparative companies are larger, a size adjustment should be applied to the return increasing it for the greater risk of the small company.

Q. Based on this set of considerations, what do you believe is a reasonable solution to the return determination for the small telecommunication companies located in Missouri?

A. I believe they should be authorized the same return as SBC or Sprint, or GTE if it were still operating in this state. In fact, since GTE was the predecessor owner of these properties, I believe it is appropriate that these properties be accorded the return which GTE would have received had it continued to operate these properties.

Q. What is that return?

A. Since GTE is no longer operating independently, that return cannot be established. The next best solution is to authorize the return allowed for SBC, one of the Staff comparable

companies and the dominant communications company in the state. The last return authorized for SBC in Missouri was in case No. TO-2001-438 and was 13% on a 70% equity ratio.

Q. Are there other returns which are relevant to this proceeding?

A. Yes. The FCC makes determinations of required rate of return for various services which are generally applied on a nationwide basis. Because the industry is competitive and because the theory behind the FCC determinations applies here those returns are relevant.

Q. Which FCC determinations are relevant here?

A. The FCC in its Docket No. 98-108 found that the appropriate return for interstate services for local exchange carriers was 11.25%. The FCC recently reaffirmed this finding in Docket No. 04-372.

Q. Is any of this logic similar to the Staff analysis?

A. Yes it is. The Staff analysis concludes that BPS should have the same return on equity as four large telecommunication companies adjusted for leverage. If the same rate of return is authorized for BPS as for the large companies, the end result is the same including the adjustment for leverage.

IV. CONCLUSION ON RATE OF RETURN

Q. What is your overall conclusion on rate of return for BPS Telephone?

A. The corrected Staff analysis from my Schedule suggest that a rate of return of 10.94% is appropriate. I believe that this return adjusted upward for the higher business risk of BPS would be the lowest reasonable return for BPS in this proceeding. This return incorporates a return on equity of 11.54%. The analysis of the industry as a competitive but regulated industry suggests that the BPS should receive the same rate of return as the dominant

carrier in the state, SBC. Finally, the FCC has made and reaffirmed findings on return which currently apply of 11.25%. Under the circumstances, I believe that a rate of return for BPS in this proceeding of 11.25% would be appropriate.

Q. Does this conclude your testimony?

A. Yes, it does.

APPENDIX A

STATEMENT OF QUALIFICATIONS
OF
JOHN C. DUNN

Q. Please state your name.

A. John C. Dunn.

Q. What is your educational background?

A. I graduated from the University of Missouri - Kansas City in 1967 with a Bachelor's Degree in Economics and Minor in Mathematics. In 1970, I received a Master of Arts Degree in Economics from the University of Missouri - Kansas City.

Q. What is your experience in the area of public utility economics?

A. I have been an economic consultant for over 30 years. I have specialized in the general area of public utility economics and corporate finance with a special emphasis in the area of cost of capital and rate of return. Prior to the formation of John C. Dunn & Company, I was a partner in predecessor firms for approximately 15 years. Prior to becoming a consultant, I was Chief of Economic Research for the Missouri Public Service Commission. I left the Commission to become Director of Economic and Financial Services and a principal in the Certified Public Accounting firm in Troupe, Kehoe, Whiteaker and Kent.

I received the designation, Certified Rate of Return Analyst, after successfully completing a comprehensive examination on the body of knowledge involved in evaluation and determination of rate of return, capital structure and related matters.

Q. Have you written any articles in the field of economics?

A. I have published a statistical volume analyzing the gas distribution (both integrated and combination) and gas transmission industries. This volume was published in early 1972. The volume was entitled, A Regulated Gas Utility Survey. Two other volumes, The Financial and Operating Analysis of Privately Owned Electric Utilities in the United States, 1961-1970, and The Inclusive Directory of Independent Operating Telephones, 1961-1970, were first published under my direction in 1971.

Shorter works include a presentation to the first annual Regulatory Information Systems Conference on the use of the computer as a tool of financial analysis; a presentation to the 1972 Regulatory Information Systems Conference on the use of the computer in augmenting traditional economic analysis; a presentation to the Missouri Valley Electric Association considered the capital requirements and the financial profile for the electric industry for the 1970's; a presentation on "The Independent Telephone Industry", and "The Future of the REA"; and a speech "The Regulation of ADR Deferrals" to a joint session of the Department of the Treasury and the Internal Revenue Service and a presentation on "The Use and Conservation of Helium" to a committee of the Kansas State Senate.

I lectured at Michigan State University NARUC courses from 1973 to 1976 on the use of the computer in regulation and quantitative methods. I was a discussant on rate design on the Missouri Energy Council program and I have been a panel moderator and chairperson on the Iowa State University conference on Public Utility Valuation and the Ratemaking Process and the chairman of the Capital Section of the 1979 Midwest Finance Association. I appeared before a select committee of the Indiana Senate on valuation methods in the ratemaking process.

I was a session chairman at the 1987 Western Economic Association International Conference and a panelist at the same conference. While attending the University of Missouri, I was awarded a fellowship and as a consequence participated in numerous research projects and papers of regional economic importance.

Q. Do you belong to any professional organizations or associations?

A. Yes. I have been a member of the American Economic Association, the American Finance Association, the Econometric Society, the Federation of Financial Analysts, and regional and local associations such as the Western Finance Association, the Southern Economic Association, the Kansas City Society of Financial Analysts and the Kansas City Council on Business Economics. I am also a member of the Society of Rate of Return Analysts.

I am a past member of the Governor's Advisory Council on Comprehensive Health Planning and the State Advisory Board on Medical Service Cost, both in the state of Missouri. From its inception in 1970 until February 1972, I was a member of the National Association of Regulatory Utility Commissioners Subcommittee of Staff Experts on Economics. From its inception until February 1972, I was Chairman of the National Association of Regulatory Utility Commissioners Joint Subcommittee on Electronic Data Processing.

I am also a past member of the Iowa State University Board of Directors Conference on Public Utility Valuation, a member of the Program Planning Committee of the same organization and a past member of the faculty of the NARUC Short Court at Michigan State University. I am past chairman of the Advising Faculty of the Regulatory Information Systems Conference.

Q. Have you previously testified before any state or federal regulatory agencies?

A. Yes. I have testified on economic matters, including rate of return determinations, value determinations and rate design before courts in several jurisdictions, utility regulatory agencies, both state and federal, and other regulatory bodies such as State Property Tax Boards. In particular, I have testified before the Federal Energy Regulatory Commission and its predecessor, the Federal Power Commission, the Interstate Commerce Commission and the Federal Energy Regulatory Commission sitting as the Interstate Commerce Commission on crude and product pipeline regulation. I have testified before the state regulatory commissions of Kansas, Missouri, Mississippi, Illinois, Iowa, Michigan, Oklahoma, Indiana, Texas, Arkansas, Nevada, Colorado, Georgia, South Carolina, Tennessee and Louisiana, among others. I have testified before Federal District Courts in Nebraska, Kansas and Oklahoma and courts in the states of Mississippi, Kansas, Nebraska and Missouri.

Q. Does your background in finance and economics include special studies in the determination of appropriate capitalization and cost of capital?

A. It does.