EXHIBIT WET-1RT

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of Qwest's Petition to be Regulated Under an Alternative Form of Regulation Pursuant to RCW 80.36.135	Docket No. UT-061625

REBUTTAL TESTIMONY OF
DR. WILLIAM E. TAYLOR
ON BEHALF OF
QWEST CORPORATION

FEBRUARY 16, 2007

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I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, RESPONSIBILITIES AND EMPLOYMENT.

A. My name is William E. Taylor. I am Senior Vice President of NERA Economic Consulting ("NERA"), head of its Communications Practice, and head of its Boston office located at 200 Clarendon Street, Boston, Massachusetts 02116.

Q. BRIEFLY OUTLINE YOUR EDUCATION AND EMPLOYMENT BACKGROUND.

A. I have been an economist for over thirty years. I earned a Bachelor of Arts from Harvard College in 1968, a Master of Arts in Statistics from the University of California at Berkeley in 1970, and a Ph.D. from Berkeley in 1974, specializing in Industrial Organization and Econometrics. For the past thirty years, I have taught and published research in the areas of microeconomics, theoretical and applied econometrics, and telecommunications policy at academic and research institutions, including the Economics Departments of Cornell University, the Catholic University of Louvain in Belgium, the Massachusetts Institute of Technology, Bell Laboratories and Bell Communications Research, Inc.

I have testified on telecommunications economics before numerous state regulatory authorities, the Federal Communications Commission, the Canadian Radio-Television and Telecommunications Commission, the New Zealand Commerce Commission, the Commission Federal de Telecomunicaciones de México, U.S. federal and state legislative committees and courts.

A copy of my curriculum vitae is included with this testimony as Exhibit WET-2R.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I have testified on economic issues in a number of proceedings before the Commission dating back to 1999, including a paging arbitration, the Qwest/U S WEST merger, intercarrier compensation for Internet-bound traffic, the classification of business services as competitive, the Dex sale, and the Verizon/MCI merger.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. I have been asked by Qwest Corporation ("Qwest") to respond to the economic issues raised in the direct testimonies of Dr. Robert Loube on behalf of Public Counsel and Mr. Thomas Wilson on behalf of the Staff of the Washington Utilities and Transportation Commission ("Commission"). The purpose of my testimony is to evaluate the economic issues raised in these testimonies regarding Qwest's Petition for Approval of an Alternative Form of Regulation.

Q. WHAT ECONOMIC ISSUES DO YOU ADDRESS IN THIS TESTIMONY?

A. The main area of economic dispute centers on whether there is sufficient competition in the provision of residential basic exchange service to warrant adoption of the Qwest Petition under the standards of RCW 80.36.135. These competition issues include:

1. the appropriate definition of the relevant product market,
2. the assessment of market power in that market, including the role of market concentration as measured by the Herfindahl-Hirschman index ("HHI") and the use of critical demand elasticities,
3. the assessment of competition, including the role of wireless, cable telephony and VoIP as substitutes for wireline telephone service, and
4. the role of changes in prices and quantities in determining the degree of competition.

In addition, Public Counsel raises questions about the jurisdictional cost separations process and incorrectly concludes that the pricing flexibility afforded Qwest under its proposed AFOR would be inappropriate because a back-of-the-envelope calculation suggests that its intrastate earnings are adequate.

Q. WHAT CONCLUSIONS DO YOU REACH?

A. From an economic perspective, I find that a number of Dr. Loube's recommendations are based on an erroneous interpretation of economic concepts. Without formally defining a relevant market, he focuses the bulk of his concern on standalone residential basic exchange service, a service that is a component of packages sold by wireline, wireless, cable and VoIP providers. Analyzing basic exchange service in isolation ignores the important market forces that constrain a firm's ability to set prices or other terms and conditions for such a service. And the fact that Qwest's proposal caps the price of residential basic exchange service for the life of the plan, renders his concern for this service effectively moot.

Dr. Loube's assessment of Qwest's market power for this service relies on market concentration (measured by Herfindahl-Hirschman indices) together with a critical elasticity calculation and concludes incorrectly that Qwest has market power for residential basic exchange service. He mis-measures incremental cost and uses the wrong formula for calculating the critical elasticity — the degree of competition necessary so that a price increase is not profitable — by ignoring the effect of complementary products (such as carrier access, toll and vertical features) in that calculation. He underestimates competition from cable and VoIP providers by incorrectly comparing standalone prices for cable telephony and VoIP services with Qwest's basic exchange service, ignoring the fact that many households already subscribe to cable video and broadband Internet access services. He disregards the economic definition of substitution in his unsupported claim that wireless and wireline services are complements rather than substitutes.

Dr. Loube incorrectly infers from Qwest's request for pricing flexibility for basic exchange service that Qwest possesses market power for that service. He assumes that incremental cost is the level of price to which residential basic exchange service prices would move in competitive markets and that any price increase from its regulated rate would represent an exercise of market power that would undermine competition. On the contrary, residential basic exchange service in Washington is priced below competitive market levels, and continuing such pricing in the face of growing intermodal competition would distort market outcomes and disadvantage customers and competitors.

Dr. Loube asserts that a price increase for residential basic exchange service would not be affordable. However, a quick look at the facts shows that the residential basic exchange price (including the federal subscriber line charge) has fallen in real terms since it was last set by the Commission in 1998, so that consumers today give up less in terms of other goods and services than they gave up in 1998 to buy this service. In addition, as a fraction of median household income, the price of residential basic exchange service has declined since 1998 and — based on reasonable forecasts — would continue to decline through the end of the Qwest proposed plan in 2010.

Finally, Dr. Loube's assertion that Qwest's proposed AFOR should be rejected or modified because Qwest's earnings, based on his separated accounting costs, are adequate defies economic logic. Allocated costs have no foundation in cost causation and no economic relevance in setting prices, particularly in markets that have been opened to competition.

II. COMPETITIVE ISSUES

Q. WHAT STANDARDS SHOULD THE COMMISSION USE TO ASSESS THE QWEST PETITION?

A. I understand that RCW 80.36.135(2) directs the Commission to consider, in addition to the public policy goals stated in RCW 80.36.300, whether the

proposed AFOR plan will foster the six regulatory goals specified in Section 2 of RCW 80.36.135. In addition, in judging whether an AFOR plan would advance the third of those goals ("[p]reserve and enhance the development of effective competition and protect against the exercise of market power during its development,"), the Commission should consider the factors that it uses to determine whether a company or a service is competitive. In RCW 80.36.320 and 80.36.330, the Commission defines "effective competition" as a situation in which customers have reasonably available alternatives and are not captive customers. Also under these statutes, in determining whether a company or a service is competitive, the Commission considers various economic indicia of competition, including

> (a) the number and size of alternative providers of services; (b) the extent to which services are available from alternative providers in the relevant market; (c) the ability of alternative providers to make functionally equivalent or substitute services readily available at competitive rates, terms and conditions; and (d) other indicators of market power, which may include market share, growth in market share, ease of entry, and the affiliation of providers of services. [RCW 80.36.320 (for companies) and RCW 80.36.330 (for services)]

From an economic perspective, these criteria are reasonable ones for the Commission to use to assess whether telecommunications markets in Washington are sufficiently competitive that Qwest's petition will meet the statutory AFOR standards as well as the criteria for competitive classification of companies and services.

Q. HOW DO ECONOMISTS DETERMINE WHETHER MARKETS FOR PARTICULAR SERVICES ARE SUFFICIENTLY COMPETITIVE THAT PRICES AND OTHER TERMS AND CONDITIONS ARE BETTER CONTROLLED BY MARKET FORCES THAN BY REGULATION?

A. In regulatory economics, the presence of effective competition in a market is an indication that customers will be better served if prices and terms and conditions for services in the market are not determined by regulation but by market forces. Effective competition is characterized by the absence of firms possessing market power,[1] which is the ability of individual firms (or groups of firms) to affect price and other terms and conditions of sale in a market. Market power is generally defined as the ability of a firm to profitably raise and sustain prices above the competitive market level for a significant period of time.[2] Possession of market power necessarily requires the presence of barriers to entry; otherwise, supra-competitive prices would attract entry which would bid down prices to the competitive market level.

A. Product Market Definition

Q. WHAT PRODUCT MARKET DOES DR. LOUBE ADDRESS?

A. Dr. Loube focuses his attention on what he calls the "primary residential basic service market" [Exhibit RL-4 at 2 line 4] or the "primary-line residential market" Exhibit RL-4 at 2 line 16]. The service in question appears to be residential voice

[1] For example, "Effective competition can be defined as the persistent absence of players with market power," in "Principles of implementation and best practice on effective competition in electronic communications markets," Independent Regulators Group of the European National Regulatory Authorities, February 2001, at 2.

[2] "The term 'market power' refers to the ability of a firm (or a group of firms acting jointly) to raise price above the competitive level without losing so many sales so rapidly that the price increase is unprofitable and must be rescinded." W.M. Landes and R.A. Posner, "Market Power in Antitrust Cases," *Harvard Law Review*, 94, 1981, at 937.

access to the public switched network; it is unclear whether Dr. Loube intends that local usage be included in the product market or vertical services (*e.g.*, call waiting) that are necessarily associated with the access line.

Q. IS THIS SERVICE A RELEVANT PRODUCT MARKET IN ECONOMICS?

A. No. Dr. Loube cites [at RL-4, pp. 1-2] the standard definition of a product market from the *Horizontal Merger Guidelines*[3] but then ignores that definition in his description of the "primary residential basic service market" [RL-4, 2], arguing only that "this service is different from other telecommunications services." To conduct a market definition exercise consistent with the *Horizontal Merger Guidelines*, Dr. Loube would have to show that other wireline and intermodal services are not sufficiently good substitutes for a sufficient number of customers to discipline any attempt to raise prices above the competitive market level.

Dr. Loube does not identify services to which customers might substitute if the price of residential service increased; nor does he discuss services that are typically marketed and bought together with a residential access line (*e.g.*, local usage, toll usage, vertical services). In particular, carriers currently offer a continuum of packages of telecommunications services that include residential network access together with other services, and a standalone residential access line is one extreme end of that continuum. Nonetheless, if Dr. Loube were to apply the product market definition he cites, he would find — for some customers and some levels of residential basic exchange prices — that customers would willingly switch to these packages. Thus, in economics, one must examine

[3] Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992 ("*Horizontal Merger Guidelines*") at § 1.1. The product market is "a product or group of products such that a hypothetical profit-maximizing firm that was the only present and future seller of those products…would likely impose at least a 'small but significant and nontransitory' increase in price."

consumers' substitution possibilities to define the market and not simply cite differences in the characteristics of the service.

While Dr. Loube defines the relevant market as "residential stand-alone service," his calculation of concentration in that "market" ignores that definition. In measuring market shares and concentration, Dr. Loube simply counts (actually estimates) ILEC and CLEC wireline residential access lines, cable telephony lines, wireless subscribers that have "cut the cord" entirely and some fraction of VoIP connections as part of the relevant market. Thus, the fact that many of these connections are purchased and sold as part of a package of services is ignored in his calculation.

Q. IS DR. LOUBE'S CONCERN WITH STANDALONE RESIDENTIAL ACCESS SERVICE AN IMPORTANT ECONOMIC ISSUE IN THIS CASE?

A. No. While I disagree with Dr. Loube's exclusive focus on standalone residential network access as a relevant market, his concern about inadequate competition for that service is misplaced. For the four-year life of the proposed AFOR plan, Qwest has agreed to cap the standalone residential basic exchange rate at $14.50, to limit annual price increases for that service to no more than $0.50 per month and to refrain from geographically deaveraging those prices. Hence, even if Qwest had the ability to profitably increase the price of that service above the competitive market level (which, in my opinion, it does not), its AFOR proposal leaves the service price-regulated for the length of the plan.

Dr. Loube also objects to this price cap for various reasons (see, *e.g.*, pp. 8, 15, 19, 21 and 22), which I address below in Section II.D.

B. Market Concentration and Competition

Q. WHAT ANALYTICAL FRAMEWORK DOES DR. LOUBE PROPOSE THE COMMISSION SHOULD USE TO MEASURE COMPETITION IN THE MARKET HE HAS DEFINED?

A. In Section VI, Dr. Loube discusses the *Horizontal Merger Guidelines* and [at 41, lines 2-3] asserts that the Commission should use them to determine whether there is effective competition in a market.[4] In particular, Dr. Loube interprets the *Horizontal Merger Guidelines* as implying that markets having an HHI greater than 1800-2000 are highly concentrated [at 40, line 16] and not effectively competitive [at 41, lines 3-4]. That interpretation of the *Horizontal Merger Guidelines* framework is incorrect.

Q. WHAT IS AN HHI?

A. The HHI is a measure of the concentration of a market: *i.e.*, the degree to which a small number of firms provide a large proportion of output in the market. To calculate the HHI, one simply lists the fractions of market output supplied by each firm, multiplies each by 100 (so 30 percent becomes 30), squares the number (so 30 becomes 900) and adds them up. Thus, a monopoly market has an HHI of 10,000 (100 squared), and a market consisting of five equal-sized firms has an HHI of 2,000 (5 times 20 squared).

Q. IS THERE ANY NECESSARY CONNECTION BETWEEN LEVELS OF THE HHI AND THE PRESENCE OF EFFECTIVE COMPETITION IN A MARKET?

No. It is well understood in economics that high market concentration is neither necessary nor sufficient for a firm to be able to acquire or exercise market

[4] In addition, in an apparent Freudian slip, Dr. Loube recommends "that the Commission rely on the [*Horizontal Merger Guidelines*] to evaluate the proposed merger." [at 39, lines 6-8].

power. In a simple theoretical economic model, market power, measured at the firm's profit-maximizing price and output, depends on three market characteristics — the firm's market share, the supply elasticity, and the market price elasticity of demand — not simply on market share.[5] From this analysis, the authors conclude that:

> *Market Share Alone Is Misleading* – Although the formulation of the Lerner index … provides an economic rationale for inferring market power from market share, it also suggests pitfalls in mechanically using market share data to measure market power. Since market share is only one of the three factors … that determine market power, inferences of power from share alone can be misleading. In fact, if market share alone is used to infer power, the market share measure … which is determined without regard to market demand or supply elasticity (separate factors in the equation), will be the wrong measure. The proper measure will attempt to capture the influence of market demand and supply elasticities on market power.[6]

In addition, Landes and Posner show the error in using market share data to reach conclusions about the competitiveness of *regulated* markets, such as residential basic exchange service. As they state:

> To the extent that regulation is effective, its effect is to sever market power from market share. …. This is obviously so when the effect of regulation is to limit a monopolist's price to the competitive price level. A subtler effect should also be noted, however. ***Regulation may increase a firm's market share in circumstances where only the appearance and not the reality of monopoly power is created thereby***. For example, … price may be above marginal cost in some markets and below market cost in others. In the latter group of markets, the regulated firm is apt to have 100% market share. The reason is not that it has market power but that the market is so unattractive to sellers that the only firm that will serve it is one that is either forbidden by regulatory fiat to

[5] *See*, William M. Landes and Richard A. Posner, "Market Power in Antitrust Cases," *Harvard Law Review*, Vol. 95, March 1981 ("*Landes and Posner*"). The supply elasticity measures the increase in competitors' output induced by an increase in the firm's output price. The market demand elasticity measures the decrease in demand for all firms in the market induced by an increase in every firm's price.

[6] *Id.* at 947.

> leave the market or that is induced to remain in it by the opportunity to recoup its losses in its other markets. …. In these circumstances, a 100% market share is a symptom of a lack, rather than the possession, of market power.
>
> Notice in this case that the causality between market share and price is reversed. Instead of a large market share leading to a high price, a low price leads to a large market share; and it would be improper to infer market power from observing the large market share.[7]

Q. HOW DO THE *HORIZONTAL MERGER GUIDELINES* USE THE HHI?

A. The *Horizontal Merger Guidelines* provide a standard method for defining product and geographic markets and measuring concentration in those markets. Market concentration is of particular interest in the merger context because that is what a merger does: it replaces two firms with one and thus increases market concentration (to the extent the firms are in the same relevant market). Market concentration and the increase in concentration are then used as a screen to determine whether a merger should be examined more closely as posing a concern for competition. There is no presumption in the *Horizontal Merger Guidelines* that markets having an HHI greater than 1800 are not effectively competitive.

Q. WHAT EVIDENCE IS THERE REGARDING THE ENFORCEMENT AGENCIES' USE OF THE HHI?

A. While HHIs are frequently calculated as a screen to identify potentially problematic mergers, the Department of Justice and the Federal Trade Commission do not apply the HHI ranges in the *Horizontal Merger Guidelines* mechanically. There are cases in which HHIs played no role whatsoever in the

[7] *Id.* at pp. 975-76 (footnotes omitted, emphasis added).

evaluation of a merger.[8] Moreover, many mergers with HHIs significantly above the thresholds in the *Horizontal Merger Guidelines* have not been blocked by the antitrust authorities.[9] In telecommunications, for instance, when Cingular and AT&T Wireless merged, the DOJ sought remedies only with respect to a handful of the 450 Component Economic Areas and Cellular Market Areas in which strict application of the HHI thresholds identified suggested that the merger warranted further scrutiny.[10] And those few areas had post-merger HHIs that "range[d] from approximately 4400 to more than 8000, with increases in the HHI as a result of the merger ranging from approximately 1100 to more than 3500."[11]

Q. IS IT NECESSARY TO CALCULATE AN HHI TO DETERMINE IF A MARKET IS EFFECTIVELY COMPETITIVE?

A. No. In contrast to the merger setting, in assessing market power in telecommunications markets, there is no corresponding need to measure market concentration, *per se*. To determine whether a firm has significant market power,

[8] The FTC and the DOJ note that "in a relative handful of cases, the Agencies never determined both the market shares of the merging firms and the level of market concentration." FTC/DOJ, "Merger Challenges Data: Fiscal Years 1999-2003," December 18, 2003, p. 3.

[9] See FTC/DOJ, "Merger Challenges Data: Fiscal Years 1999-2003," December 18, 2003. Referencing the *Horizontal Merger Guidelines*, the report (at 2) notes that "market shares and concentration data provide only the starting point analyzing the competitive impact of a merger." *See also*, Malcolm B. Coate, "Economic Models in Merger Analysis: A Case Study of the Merger Guidelines," Potomac Working Paper in Law and Economics 05-04, May 2005, Table 3-b. According to Coate, in collusion cases, 9 (of 18) mergers with HHI's from 2400-2999 AND deltas from 200-499 were closed. For HHI's over 3000 and deltas over 500, 6 of 21 were closed (i.e., the FTC took no action to challenge the transaction).

[10] See *United States v. Cingular Wireless Corp.,* No. 04-CV-1850 (D.D.C. Nov. 3, 2004) Final Judgment, pp. 3–7; *see also* Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corp., For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, 19 FCC Rcd 21522 (2004) ¶¶ 104, 110 ("AT&T Wireless-Cingular Order"). The FCC similarly found that remedies should be imposed with respect to very few of the markets identified through HHI calculations as warranting further investigation. *See id*. ¶ 184 ("we have concluded that, as a general matter, even the markets identified for further review by our preliminary HHI and spectrum analysis are unlikely to suffer anticompetitive effects as a result of the merger."). In the few instances in which the FCC did impose remedies, it did so only after an extensive and detailed analysis. *See id*. ¶¶ 193–200 and Appendix D.

[11] Competitive Impact Statement, p. 11, *United States v. Cingular Wireless Corp.*, No. 04-CV-1850 (D.D.C. filed Oct. 29, 2004).

we need to know the degree to which customers would substitute away from its services in the face of a significant non-transitory increase in price above the competitive level. That exercise does not require an all-or-nothing assignment of firms or services to the market for all purposes but rather focuses only on the ability of substitutes (in aggregate) to constrain its prices to competitive market levels. In the current case, we need only to ascertain whether substitutes for Qwest's residential services (in aggregate) constrain its prices; we do not need to determine, for example, whether wireless or VoIP services are in the same antitrust market as wireline local exchange service. As the Commission observed:

> The very purpose of competition, as envisioned in the 1996 Telecommunications Act and our own statutes, is to allow for differentiation in the market: different providers, different services, different customer groups, different technologies, and different niches. It is expected, therefore, that as competition develops, there will also develop a continuum of services and providers that, to a greater or lesser degree, compete with one another. The argument that a service cannot be considered an alternative because it is not a complete and perfect substitute is just as misplaced as the argument that a service must be fully counted as an "alternative," even if it is only partially a substitute. Such an "all or nothing" approach does not comport with the real world. But it is not fatal if a company fails to conduct an exhaustive collection and analysis of data on all possible forms of competition, if that data will not alter the outcome of the case. Rather, the evidence presented and reliance upon it should be commensurate with its relevance to the critical questions in the case.[12]

[12] In the Matter of the Petition of Qwest Corporation For Competitive Classification of Basic Business Exchange Telecommunications Services (UT-030614), Order No. 17, Order Granting Competitive Classification, December 22, 2003 at ¶ 51.

Q. DR. LOUBE ASSERTS [AT 24-25] THAT QWEST'S DECLINE IN SWITCHED ACCESS LINES HAS BEEN OFFSET BY SALES OF DSL AND SPECIAL ACCESS SERVICES. IS THIS CLAIM RELEVANT IN ASSESSING QWEST'S PROPOSED AFOR PLAN?

A. No. The growths in volumes of DSL lines and special access voice grade equivalents reported by Dr. Loube are not relevant in assessing competition under RCW 80.36.330 and certainly have no bearing on assessing the competitive alternatives for customers who buy standalone residential basic exchange service. There is no question that the demand for high capacity services — private line and special access services for business customers and Internet access for residential customers — has grown rapidly, and Qwest's supply of those services has also grown, even while its supply of voice-grade access lines has decreased. However, Qwest's petition is not a rate case, and the fact that demand for other telecommunications services is growing does not diminish the need to ensure that competition for voice-grade services is not impeded and distorted by asymmetric regulation of that service.

This error is shown most starkly in Dr. Loube's assertions about Qwest's intrastate rate of return. In particular, he claims [at 51] that Qwest's current intrastate rate of return is close to its "last authorized" level and that

> the growth in DSL service and the growth in special access service, are likely to continue into the future, creating … a further increase in intrastate rate of return. Therefore, it is not reasonable to authorize a general rate increase to close the small gap between the last authorized return and the return that I have calculated.

In context, Dr. Loube is arguing that the price of residential basic exchange rates, currently set below any reasonable estimate of the competitive market level, should not be allowed to increase towards that level because demand for other

unrelated services is growing. Such pricing discourages market entry and interferes with the efficient operation of the market. It would use earnings and expected increases in earnings from residential broadband access customers and business special access customers to reduce prices for customers who purchase residential basic exchange service, a service open to competition. Competition for residential basic exchange service would be reduced because otherwise efficient firms cannot compete profitably against such a price. In addition, when a service is priced below market levels, supply of that service at such a price, combined with Dr. Loube's claim that earnings are at an authorized level, would necessarily cause prices for other services of the firm — including DSL and special access — to be higher than they otherwise would have been, thus distorting prices and competition in other markets.[13] Such rate structures have no role in telecommunications markets in the U.S., where the Telecommunications Act of 1996 opened all telecommunications markets to competition.

C. Market Power and Critical Elasticities

Q. DR. LOUBE ASSERTS [AT 45, LINES 14-18] THAT THE *HORIZONTAL MERGER GUIDELINES* IMPLY THAT "A FIRM CAN EXERCISE MONOPOLY POWER IF THE FIRM CAN IMPOSE A SMALL BUT SIGNIFICANT AND NON-TRANSITORY INCREASE IN PRICE." DO YOU AGREE WITH THIS INTERPRETATION?

A. No. "Market power" is defined in the *Horizontal Merger Guidelines* as "the ability profitably to maintain prices above competitive levels for a significant period of time."[14] Dr. Loube has omitted the phrase "above competitive levels."

[13] *See, e.g.*, the discussion of the burden test in W.J. Baumol, *Superfairness*, Cambridge: The MIT Press, 1986, at 117-120.

[14] *Horizontal Merger Guidelines*, §0.1

Q. WHY IS THAT OMISSION IMPORTANT?

A. A significant, non-transitory increase in price may be profitable for a regulated firm when the price in question has been set intentionally below the competitive level. A price increase in this circumstance is thus not an exercise of market power, and, because economic efficiency is maximized for society at competitive market prices, society is actually better off after the price increase.

Q. HOW CAN CONSUMERS BENEFIT FROM A PRICE INCREASE?

A. For an economist, the principle function of prices in competitive markets is to direct economic activity in the most valuable directions. When an agency sets a service price below the competitive market level, too little of that service will be supplied and too much of that service will be consumed. On the one hand, firms will have too little incentive to invest, innovate and provide high-quality service, and on the other hand, consumers will buy the service who do not value it as much as the resources that society gives up to produce it. In such a case, economic welfare is increased if price is allowed to move to the competitive market level.

Q. DR. LOUBE CALCULATES A CRITICAL ELASTICITY FOR RESIDENTIAL BASIC EXCHANGE SERVICE [AT 45-49]. IN ECONOMICS, WHAT IS A CRITICAL ELASTICITY?

A. As Dr. Loube calculates it, the critical elasticity for a service is the largest (in absolute value) value of the price elasticity of demand facing the firm for which a price increase would be profitable. The calculation is straightforward: when a firm increases its price, some customers remain and pay the higher price, and others leave, buying the service from a competitor or not buying it at all.

- Revenue for the firm will increase if the percentage reduction in demand is less than the percentage increase in price: *i.e.*, if the price elasticity of demand is less than 1 (in absolute value).

- Total costs for the firm will fall unambiguously because the increase in price will cause demand to fall.

Thus, firm profits (revenues minus costs) will increase if revenue increases or if revenue falls by less than costs fall.

Q. IS DR. LOUBE'S CALCULATION OF THE CRITICAL ELASTICITY FOR STANDALONE RESIDENTIAL ACCESS SERVICE CORRECT?

A. No. Dr. Loube's calculation is wrong in several respects, and the policy conclusion he derives from it — "Because the critical elasticity of demand is greater than the measured elasticity of demand, Qwest can profitably impose a [price increase] in the primary-line market" — is incorrect.[15]

First, Dr. Loube incorrectly assumes that an 5 percent increase in the intrastate price of standalone residential access service represents a 5 percent increase in the price customers pay for the service. At current price levels, a 5 percent increase in the intrastate $12.50 per month price represents a 3.4 percent increase in the price consumers actually pay, including the subscriber line charge.

Second, Dr. Loube incorrectly calculates the incremental cost of standalone residential basic exchange service $7.98 per month: the sum of $3.97 — a TELRIC-based UNE switching and transport cost (for 1,000 minutes per month) — and $4.01 — a value apparently proposed for "retail incremental costs" by parties other than Qwest in a regulatory proceeding. He omits the incremental cost of the loop [at 48, lines 1-2] because the "Commission has ruled that the loop cost is a cost of all of the services that use the loop and should not be assigned to

[15] Of course, Qwest may find that a $0.50 per month increase in basic rates is profitable. The two important points here are that (i) Dr. Loube's critical elasticity analysis doesn't show that such an increase will necessarily be profitable and (ii) a profitable price increase at current price levels is not an exercise of market power but a movement towards a more efficient rate structure.

a particular service." Whether or not this is an accurate characterization of some previous Commission decision, Dr. Loube's use of it leads to an incorrect calculation of incremental cost in his critical elasticity calculation. It is indisputable that if Qwest lost standalone residential basic exchange customers, its costs would fall by the full incremental cost of the service, which would include the full cost of the loop.[16]

Correcting Dr. Loube's cost calculation suggests that at $12.50 per month, residential basic exchange service may be priced below incremental cost, a fact noted by Staff Witness Wilson [at 56-57 and Exhibit TLW-4C]. Applying his critical elasticity formula in this case shows the obvious: that if the firm loses money on every unit sold, a price increase is always profitable, even if it drives *all* of the firm's customers away.

Third, Dr. Loube incorrectly uses a formula for the critical elasticity that only holds for firms that produce a single product and thus ignores other revenues and costs that the firm gains or loses when it changes the price of residential basic exchange service. The fact that Qwest sells high margin services such as interstate and intrastate carrier access, vertical features and toll to its residential basic exchange customers necessarily limits its ability to raise the price of basic exchange service profitably, and that effect is ignored in Dr. Loube's critical elasticity formula. The correct formula for the critical elasticity when the firm sells complementary or substitute services essentially multiplies Dr. Loube's expression by a factor that is less than one when the other relevant services are

[16] Allocating loop costs to services that use the loop is a *pricing* exercise — a method used by some regulators to justify a particular pattern of prices — generally lower basic exchange rates and higher prices for vertical features and usage. Such regulatory allocations cannot change the cold, hard economic facts in the real world: serving an additional standalone residential basic exchange customer requires supplying an additional loop which causes the firm to incur additional costs, including the full cost of the loop. Ignoring loop costs on the basis of a regulatory decision is reminiscent of the apocryphal story of the state legislature that set π (the ratio of the circumference of a circle to its diameter) equal to 3.0 so its citizens would not have to keep track of the messy decimal points. Calculations were thereafter quick and easy, but no matter how hard they tried, in that state, circles never closed.

complements.[17] Thus, Dr. Loube's critical elasticities of 2.16 and 2.55 [at 48, line 5] are overstated, and his conclusion that because these elasticities exceed measured elasticities, "Qwest can profitably impose a SSNIP in the primary-line market" is incorrect.

In Dr. Loube's calculation, the firm would find a 5 percent price increase marginally profitable if the margin gain from customers who stayed (and paid $0.63 more per month) just offset the revenue loss of $12.50 per month from those that left, (net of the difference in costs). However, in assessing whether the hypothetical price increase were profitable, the firm would compare the additional $0.63 per month from staying customers with a revenue loss exceeding $30 per month (again, net of cost differences) from losing the customer.[18] A price increase that was marginally profitable in Dr. Loube's calculation could well be unprofitable when complementary services were taken into account.[19]

Fourth, Dr. Loube compares his critical elasticities to measured price elasticities [at 48] and claims that measured elasticities are smaller (in absolute value) than his calculated critical elasticities. However, the relevant measured price elasticities should be *firm-specific* price elasticities, not the market-level price elasticities (for second lines and primary lines) that Dr. Loube cites.[20] The study Dr. Loube cites measured the substitution between wireless services and

[17] *See, e.g.*, D.L. Weisman, "When Can Regulation Defer to Competition for Constraining Market Power?: Complements and Critical Elasticities," *Journal of Competition Law and Economics*, *2(1)* (2006) at 104. Professor Weisman concludes that "[h]igh price-cost margins in regulated industries combine with demand complementarities to impose natural constraints on the market power of the (de)regulated firm. This follows from the fact that relatively small reductions in demand can generate large losses in contribution to joint and common costs." *Id*., at 111.

[18] This revenue loss is based on the confidential estimate of Staff Witness Thomas L. Wilson, Jr. in Exhibit TCW-8C, Revenue Per Line.

[19] For example, using the correct formula for the critical elasticity, suppose there are two services that are complementary to the basic subscriber line. Assume price-cost margins are all 80 percent and their cross-elasticity with subscriber lines is a moderate -0.3. In this example, the correct critical elasticity would be less than 1, compared with 1.1 and 1.2, using Dr. Loube's formulas. [Weisman, Table 1].

[20] A market-level price elasticity measures the effect of price on aggregate demand for basic exchange service. A firm-specific price elasticity shows the effect of price on the *individual firm's* demand for basic exchange service from changes in its price, given the prices of other suppliers.

wireline second lines in the aggregate; it ignored the substitution between the services of individual competing suppliers, which is the relevant substitution for a firm to use to determine whether a price increase would be profitable.[21]

Fifth, Dr. Loube's calculation of a critical elasticity — even if done correctly — would say nothing about Qwest's ability to exercise market power, because, as discussed above, a profitable increase in price only connotes market power when that price has been set at a competitive market level.

D. Intermodal Competition

Q. DR. LOUBE ASSERTS THAT CABLE TELEPHONY [AT 28-29] AND VOIP SERVICE [AT 37] PRICES ARE TOO HIGH TO DISCIPLINE QWEST'S RESIDENTIAL BASIC EXCHANGE SERVICE PRICES. IS THIS CORRECT?

A. No. Dr. Loube improperly compares the Qwest price for standalone residential basic exchange service with (i) the standalone price of Comcast cable and (ii) the combined prices of Vonage VoIP and broadband access. Significant fractions of Washington households already subscribe to cable service and to broadband Internet access. For those households, the relevant price comparison is between the *incremental* price of telephone service (cable telephony or standalone VoIP) and the price of wireline telephone service. Moreover, wireline carriers do not know which households subscribe to cable or to broadband services and cannot set different access prices for those households. Hence, *all* Washington households — not just those with cable or broadband service — benefit from the price competition that stems from the comparison of wireline telephone prices

[21] The cited measured elasticity for residential primary line service [-0.1 at 48, line 15] appears to be taken from other cross-section estimates of the *market* price elasticity of demand for residential access to the network.

with the incremental prices for telephone service add-ons to cable and broadband service.

Note also that the number of households that subscribe to cable or broadband access services does not need to be very large to discipline wireline telephone prices. Dr. Loube's critical elasticity formula — corrected to account for complementary services — shows clearly that the potential profitability of a price increase for wireline residential basic exchange service is strictly limited:

- because a large portion of basic exchange costs are fixed, when customers substitute away from Qwest's basic exchange service, revenue goes away but significant costs do not; and
- because customers buy a large amount of high-margin complementary services, the revenue that goes away can be large in comparison with the additional local exchange revenue from customers who stay.

Q. DR. LOUBE DISPUTES [AT 17-18] THE RELEVANCE OF THE INCREMENTAL COST TO UPGRADE CABLE FACILITIES OR A BROADBAND ACCESS LINE TO PROVIDE TELEPHONE SERVICE. ARE THESE COSTS RELEVANT TO THE PRICE REGULATION OF WIRELINE SERVICES?

A. Yes. Because the incremental costs to provide cable telephony or standalone VoIP services to additional customers are small, these services more effectively discipline the price of wireline residential basic exchange service. One of the three factors that determine market power (discussed above) is the elasticity of supply, which measures the increase in output of competitors induced by an increase in the wireline price. Low incremental costs means that it is profitable for a cable or VoIP competitor to serve customers looking for an alternative to a wireline carrier that increased its price.

Q. DR. LOUBE ASSERTS THAT WIRELESS SERVICE IS A COMPLEMENT TO RESIDENTIAL BASIC EXCHANGE SERVICE RATHER THAN A SUBSTITUTE. DO YOU AGREE?

A. No. Specifically, Dr. Loube asserts [at 25-26] that

> consumers are obviously using their wireless phones as a complement to their wire line phones. If a substantial majority of consumers viewed wireless and wire line phones as substitutes, the number of wire line phones would have sunk to a very low number.

This conclusion is incorrect in economics and misleading in the context of this exercise. In economics, two services are substitutes if an increase in the price of one (all else equal) *increases* the demand for the other. Dr. Loube's evidence does not address customers' reaction to changes in the relative prices of wireless and wireline access service.

Consider the following modest thought experiment: ask yourself what the effect of a significant increase in the price of residential basic exchange service would be on the demand for wireless service (assuming its price remained the same). If you think your demand for wireless service would *decrease*, then you agree with Dr. Loube that wireless is a complement to wireline service. If you think you would be more likely to purchase wireless service, then you believe that wireless is a substitute for wireline service.

E. Pricing and Market Power

Q. DR. LOUBE ASSERTS [AT 19] THAT A "REQUEST TO INCREASE THE STAND-ALONE RESIDENTIAL RATE CONFLICTS WITH THE CLAIM THAT THE RESIDENTIAL MARKET IS COMPETITIVE." DO YOU AGREE?

A. No. Dr. Loube also makes this claim at 49, where he argues that Qwest's request to increase the residential basic exchange rate to $14.50 as well as its previous

increase in the federal subscriber line charge "supports the claim that it has monopoly power." "In an effectively competitive market," he asserts, "it does not make sense to request a rate increase, or to attempt to implement a rate increase."

These claims make no economic sense. First, prices go up (and down) in competitive markets all the time. In the U.S., consumers purchase goods and services in markets generally thought to be effectively competitive and yet prices have risen about 2.5 percent annually over the past decade.[22] Second, competitive market forces push prices towards an economically efficient level, which is not always downward. When market forces are permitted to determine prices for the first time, whether they rise or fall obviously depends on the level from which they started. Residential basic exchange prices have been regulated in Washington for many years, and while economic efficiency may have been one criterion in setting prices, affordability, universal service, regulatory accounting and a myriad of other concerns have affected the level of prices. It is thus unlikely that current local exchange prices would approximate competitive market prices, and we cannot infer the presence of market power from the fact that Qwest seeks the authority to increase its price.

Finally, even if Qwest were to implement all of the possible price increases in its petition, according to Staff, the resulting prices would not be out of line with other Washington residential basic exchange rates.[23] Moreover, according to Staff estimates, Qwest's resulting intrastate accounting rate of return, even after the hypothetical $2.00 per month increase, would not exceed previously authorized levels.[24] While neither of these observations speaks directly to economic measures of competitiveness, they do suggest that the

[22] Bureau of Labor Statistics, consumer price index (CPI-U), annual changes, http://data.bls.gov/PDQ/servlet/SurveyOutputServlet

[23] Staff Witness Thomas L. Wilson, Jr., Confidential Testimony at 60.

[24] Staff Witness Paula M. Strain, Confidential Testimony at 16.

pricing flexibility requested by Qwest is not inconsistent with the workings of a competitive market.

Q. FROM HIS CRITICAL ELASTICITY COMPARISON, DR. LOUBE CONCLUDES [AT 48-49] THAT "QWEST HAS THE ABILITY TO EXERCISE MONOPOLY POWER AND REDUCE COMPETITION IN THAT [RESIDENTIAL PRIMARY-LINE] MARKET." DO YOU AGREE?

A. No, and the combination of exercising market power (by raising prices) and reducing competition in the market makes no economic sense. Even if a price increase for residential basic exchange service were profitable, it would still be the case that the price increase would stimulate rather than reduce competition. Intermodal carriers would face a higher wireline price against which to compete, and services and packages that may not have been competitive for a large number of customers before the wireline price increase could become so as a result of the increase.

Q. ELSEWHERE, DR. LOUBE ASSERTS [AT 22, LINES 16-23]THAT THE QWEST PROPOSAL WOULD "UNDERMINE COMPETITION" IN OTHER MARKETS. DOES THIS CLAIM MAKE ECONOMIC SENSE?

A. No. Dr. Loube claims that increasing prices for residential service would "allow Qwest to support its strategies in other markets," which would result in rates that were not fair just or reasonable. There are two economic errors in this claim. First, as discussed above, residential basic exchange service is currently priced below its incremental cost. Allowing market forces to move price towards incremental cost will surely increase, not decrease, economic welfare. Second, such a price change, by itself, has no effect on Qwest's pricing decisions for its other services. In particular, it is not the case that reducing its losses from residential basic exchange service would enable it to unfairly lower prices for

other competitive services. The regulatory concern with using regulated non-competitive services to subsidize competitive services does not arise in this case because a hypothetical price reduction for a competitive service does not give Qwest any additional ability to increase prices of residential basic exchange service.

Q. DR. LOUBE CLAIMS [AT 8, LINES 2-4] THAT ALLOWING RESIDENTIAL BASIC SERVICE PRICES TO INCREASE WOULD "PROVIDE QWEST WITH ADDITIONAL REVENUE THAT IT COULD USE TO REDUCE PRICES IN MORE COMPETITIVE MARKETS" WHICH WOULD HARM RATHER THAN ENHANCE COMPETITION. DO YOU AGREE?

A. No. The notion that Qwest earns a fixed pool of revenue, so that if its local rates are increased, some other rates could then be decreased is an artifact of a long-expired ratebase rate-of-return regulatory regime. Today, if reducing prices in more competitive markets were profitable, Qwest would reduce those prices, with or without an increase in basic exchange rates. And if reducing those prices were profitable, Washington consumers and the competitive process would be better off if Qwest were allowed to do so.

Q. IS IT UNFAIR OR PREJUDICED AGAINST STANDALONE BASIC EXCHANGE CUSTOMERS TO RAISE THE PRICE OF BASIC EXCHANGE SERVICE WHILE OFFERING DISCOUNTS ON PACKAGES OF SERVICES, AS DR. LOUBE ASSERTS [AT 8-9]?

A. No. Qwest must compete with cable, wireless, VoIP and wireline CLEC packages by offering service packages at their most profitable prices. If Qwest

were prevented from discounting packages, it would simply sell fewer packages and be less profitable.

With respect to basic exchange service, competitive market forces may exert upward pressure on prices from their current, regulated level. That change in relative prices will likely increase economic efficiency because it moves both sets of prices — bundled service prices and basic exchange prices — towards economic cost. Today, residential basic exchange service is priced with no markup — arguably a negative markup — over incremental cost, while other services (and customers of other services) pay prices set — in competitive markets — well above incremental cost. While fairness and prejudice are subjective terms, it is difficult in economics to characterize a movement of prices towards competitive market levels as either unfair or prejudiced.

Q. DR. LOUBE PROPOSES [AT 9, LINES 21-22, 10, LINES 11-12]THAT THE PRICES OF QWEST'S PACKAGES BE CAPPED AT THE SUM OF THE PRICES OF THE CONSTITUENT SERVICES. IS THIS A REASONABLE REGULATION?

A. No. Such a rule is not necessary to constrain market power and would distort competition in the most competitively-active segment of the market. Capping the price of packages is not necessary because the RCW 80.36.330 criteria are clearly met for Qwest's packaged services. Not only do wireline CLECs, cable companies, wireless carriers and VoIP suppliers offer packages that compete directly with Qwest's packages, but Qwest's à la carte services also compete against its packages, particularly if packaged prices ever approached the sum of the prices of the à la carte services. No consumer is forced to buy a package whose price exceeds the sum of individually-available services, and the sum of those services is a perfect substitute for the package. Hence, no consumer would

be harmed if Qwest were to offer a package priced above the sum of its parts, and, of course, Qwest could not expect to attract many customers for such an offering.

Q. IF QWEST HAD NO INCENTIVE TO PRICE ITS PACKAGES ABOVE THE SUM OF THE INDIVIDUAL SERVICE PRICES AND NO CUSTOMER WOULD HAVE AN INCENTIVE TO PURCHASE SUCH A PACKAGE, WHAT HARM COULD SUCH A REGULATION CAUSE?

A. Packages are the most competitive parts of the telecommunications market, and in competitive markets, firms adapt their packages and their prices quickly to compete with one another to serve particular niches of consumers. If prices of packages supplied by one carrier and one platform — a wireline ILEC — are constrained and others are not, the effect of that constraint on the market outcome could be significant in important but unpredictable ways. For example, some services are not currently or naturally provided on an à la carte basis, separate from the network access line. It makes no sense technically to supply standalone call-waiting service, and unregulated firms frequently do not supply standalone local usage or standalone toll: *i.e.*, supplying local usage or toll to customers who do not buy an access line. It would distort the competitive market outcome if Qwest were required to provide such standalone services, when it does not provide them today. In addition, it may not always be clear what the sum of individual service prices might be. For example, packages typically offer different amounts of usage, often including unlimited usage. What usage price would be used as a component of the cap on package prices containing different amounts of usage?

Because this proposed constraint (i) restricts the prices of services that meet the criteria for competitive classification and (ii) serves no useful purpose

for consumers or competitors, the Commission should not impose such a constraint on Qwest's package prices.

Q. WHAT PRICE LEVEL FOR RESIDENTIAL BASIC EXCHANGE SERVICE DOES DR. LOUBE RECOMMEND?

A. Dr. Loube [at 15, lines 13-18] bases his recommendation on a principle attributed to Professor Alfred Kahn: that

> the single most widely accepted rule for governance of the regulated industries is regulate them in such a way as to produce the same results as would be produced by effective competition, if it were feasible.

As I understand his testimony, he then claims that "[e]ffective competition drives price to incremental cost" [at 15, lines 18-19] and on that basis initially recommends that Qwest's basic exchange rate be set at incremental cost, which he interprets to be $7.98 [at 16, lines 1-4]. However, to "stabilize" Qwest's earnings and control its market power, he ultimately recommends a price freeze.

Q. DOES THIS LOGIC MAKE ECONOMIC SENSE?

A. No. I agree with the quotation from Professor Kahn. However, wireline telecommunications differs profoundly from the economic textbook model of perfect competition (where price is driven to incremental cost) because telecommunications services are supplied by technologies which require a high proportion of fixed costs.[25] As a result, effective competition in telecommunications markets does *not* drive prices *to* incremental cost, and regulation that seeks to emulate the outcomes of a competitive market has no business setting telecommunications prices *at* incremental cost. Indeed, depending on the initial, regulated level of prices, the introduction of effective

[25] When output is produced using a technology with a high proportion of fixed costs, pricing services at incremental cost will not recover the total cost of the firm.

competition in a previously-regulated market may cause prices to move up or down towards the competitive market level.

Q. DR. LOUBE ASSERTS [AT 21, LINES 10-11] THAT QWEST'S PROPOSED FLEXIBILITY TO INCREASE BASIC RESIDENTIAL EXCHANGE PRICES WOULD NOT PRESERVE AFFORDABLE TELECOMMUNICATIONS AS REQUIRED BY RCW 80-36-135. DO YOU AGREE?

A. No. First, because customers purchase usage, toll and vertical features in addition to residential basic exchange service, one cannot judge changes in the affordability of telecommunications services from proposed changes in any one of those prices in isolation. Second, from an economist's perspective, affordability of a service is assessed by how its price has changed from the last time it was found to be affordable together with how prices of other goods and services and household income have changed. I understand that Qwest's residential basic exchange price was set at $12.50 nearly a decade ago in 1998, is $12.50 today, and is proposed to be allowed to increase (by no more than $0.50 per month) each year to a cap of $14.50. The other component of the residential basic exchange price is the federal subscriber line charge, which was $3.50 in 1998 and was increased to $5.84 in 2000.

Since 1998, Qwest's residential basic exchange prices have increased at an average annual rate of 1.7 percent, while the consumer price index has increased at an average annual rate of 2.7 percent. Thus, in real terms — *i.e.*, the value of goods and services a consumer has to give up to buy residential access service — residential access service prices have fallen by about 1 percent per year. Assume that through 2010, inflation continues at its average rate over the 1998-2006 period and that Qwest increases residential basic exchange prices by

the maximum amount. At the end of 2010, residential basic exchange rates will still have fallen in real terms by 0.65 percent per year from the time the Commission set the rate at $12.50. Thus the price of residential basic exchange service, which can be assumed to have been affordable in 1998, is lower in real terms today, and can reasonably be forecast to be even lower in real terms in 2010. To an economist, it is difficult to characterize such a price as unaffordable. Consumers give up less to buy residential basic exchange service today than they gave up in 1998 (when it was presumably affordable), and they will give up even less than that in 2010.[26]

Q. BUT SHOULDN'T THE CONCEPT OF AFFORDABILITY TAKE HOUSEHOLD INCOME INTO ACCOUNT?

A. Possibly. Median household income for the State of Washington has increased at an average annual rate of 3.1 percent from 1998 through 2006 and in real terms at about 0.4 percent per year.[27] Thus, taking household income into account, residential basic exchange service is more affordable today than it was in 1998.

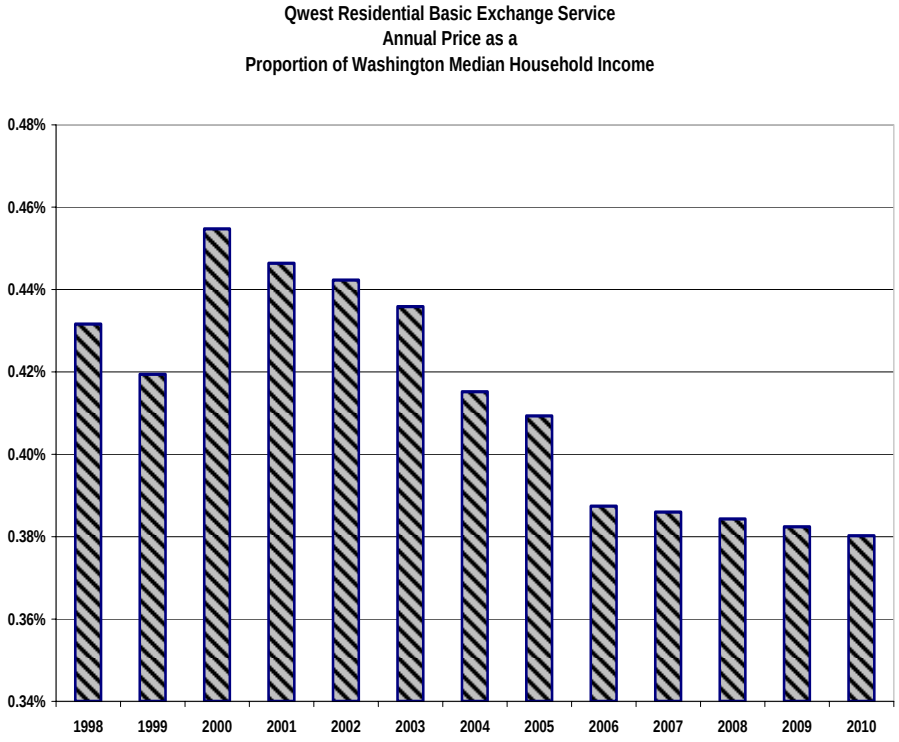
Expressed differently, the annual price of residential basic exchange service in 1998 was $192.00, which represented 0.43 percent of annual median household income in Washington that year. In 2006, the annual price of residential basic exchange service was $220.08, which represented 0.39 percent of income that year. Washington consumers are spending a smaller proportion of median household income of residence basic exchange service today than in 1998 when the $12.50 rate was implemented. Suppose Washington median household income continues to grow at its historical (1998-2006) rate and Qwest raises residential basic exchange rates to $14.50 in 2010. Then the annual price of

[26] Measured in terms of bushels of wheat, pizzas, automobiles, gallons of gasoline, *etc*. If wheat were the only other commodity in the economy and it took 100 bushels of wheat to buy residential local exchange service in 1998, it would take 93 bushels in 2006 and (under the above assumptions) 92 bushels in 2010.

[27] Income data from the Office of Financial Management, State of Washington, "Median Household Income Estimates by County: 1989 to 2005 and Projection for 2006," downloaded from http://www.ofm.wa.gov/economy/hhinc/ on February 9, 2007.

residential basic exchange service would equal $244.08,[28] which would amount to about 0.38 percent of (forecasted) median household income, an even smaller proportion than in 2006. See Figure 1 below.

Figure 1.



Taking household income into account suggests strongly that residential basic exchange service will be more affordable under Qwest's proposal than it was in 1998 when the Commission presumably found a $12.50 basic exchange rate to be affordable.

[28] Assuming no change in subscriber line charges.

III. SEPARATIONS AND COST ISSUES

Q. DR. LOUBE MAKES A NUMBER OF RECOMMENDATIONS REGARDING THE ALLOCATION OF COSTS BETWEEN THE INTRASTATE AND INTERSTATE REGULATORY JURISDICTIONS: SEE 16, LINES 14-17, 20, LINES 2-14, AND SECTION VIII. DO THESE PROPOSALS MAKE ECONOMIC SENSE?

A. No. Dr. Loube's discussion of cost allocation is irrelevant to the Commission's decisions in this case. And, as economists have stressed for years, the regulatory allocation of costs is — at best — an arbitrary and economically meaningless exercise, while, at worst, can be a license to distort regulated prices in directions that reduce economic welfare.

The jurisdictional allocation of costs is a vestige of state and federal regulatory regimes which are no longer in place. Their function historically was to permit the calculation of rates of return for interstate and intrastate services because regulated prices in those jurisdictions were determined, at least in part, by such allocated costs. However, today, Qwest's interstate service prices are unaffected by their interstate rates of return, however calculated, and under Qwest's proposal in Washington, intrastate rates of return will have no bearing on prices of intrastate services. Hence, Dr. Loube's calculations are irrelevant in this proceeding. More pernicious, however, is Dr. Loube's assumption that Qwest's petition for an AFOR plan should be denied or modified because his back-of-the-envelope calculation of an intrastate rate of return purports to find that Qwest's aggregate intrastate rate of return is adequate. As discussed above, pricing residential basic exchange service below competitive levels in markets opened to competition reduces economic efficiency and consumer welfare.

Finally, using regulatory cost allocations to justify otherwise unwise rate structures is economically irrational as a basis for setting prices in markets opened

to competition. The allocations of accounting costs between regulated and unregulated, intrastate and interstate, and finally, among individual services are, of necessity, not based on cost-causation. The sources of these difficulties are obvious. Fixed and common costs permeate—indeed dominate—a telephone company's cost structure. Even more important, each network provides interstate and intrastate services, carrier services (special and switched access) and retail services (local and toll): a large fraction of these network costs cannot be assigned on a cost-causal basis to individual services. Indeed, in contrast to Dr. Loube's claims [at 20, lines 2-14], when services are sold as packages, one cannot even allocate the *revenue* from the package to individual services in an economically meaningful way.

The regulatory expedient of assigning fixed costs among categories (***e.g.***, between regulated and unregulated or between interstate and intrastate jurisdictions), in proportion to variable costs or demand volumes, though "reasonable," is not cost-causative, and the resulting costs are not economic costs. It might be equally reasonable to allocate railroad overhead costs to services by volume, weight or value, but shippers of feathers, coal and diamonds would undoubtedly disagree about the results. In prophetic words published some 20 years ago,

> Fully allocated cost figures and the corresponding rate of return numbers simply have zero economic content. They cannot pretend to constitute approximations to *anything*. The "reasonableness" of the basis of allocation selected makes absolutely no difference except to the success of the advocates of the figures in deluding others (and perhaps themselves) about the defensibility of the numbers. There just can be no excuse for continued use of such an essentially random, or, rather, fully manipulable calculation process as a basis for vital economic decisions by regulators.[29]

[29] W. J. Baumol, M. F. Koehn and R.D. Willig, "How Arbitrary is 'Arbitrary'? – or, Toward the Deserved Demise of Full Cost Allocation," *Public Utilities Fortnightly*, Vol. 120, No. 5, September 3, 1987 at 21.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.