BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of Qwest	)	
Corporation for Competitive Classification	)	
Of Business Services in Specified	)	Docket No. UT-000883
Wire Centers	)	

REBUTTAL TESTIMONY OF

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ON BEHALF OF

QWEST CORPORATION

October 6, 2000

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I. INTRODUCTION AND SUMMARY

1 Q. **WHAT IS YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION?**

2 A. My name is William E. Taylor. I am Senior Vice President at National Economic Research
3 Associates, Inc. (NERA), head of its telecommunications practice and of its Cambridge
4 office, located at One Main Street, Cambridge, Massachusetts 02142.

5 Q. **PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
6 **QUALIFICATIONS.**

7 A. I have been an economist for over twenty-five years. I received a B.A. degree in economics
8 (Magna Cum Laude) from Harvard College in 1968, a master's degree in statistics from the
9 University of California at Berkeley in 1970, and a Ph.D. in Economics from Berkeley in
10 1974, specializing in industrial organization and econometrics. I have taught and published
11 research in the areas of telecommunications policy, microeconomics, and theoretical and
12 applied econometrics at (among other academic institutions) Cornell University, the
13 Catholic University of Louvain in Belgium, and the Massachusetts Institute of Technology,
14 and (among other telecommunications research organizations) at Bell Laboratories and Bell
15 Communications Research, Inc.

16 I have participated in telecommunications regulatory proceedings before several state
17 public service commissions. In addition, I have filed testimony before the Federal
18 Communications Commission ("FCC") and the Canadian Radio-television
19 Telecommunications Commission on matters concerning incentive regulation, price cap
20 regulation, productivity, access charges, local competition, interLATA competition,

1 interconnection and pricing for economic efficiency. Recently, I was chosen by the
2 Mexican Federal Telecommunications Commission and Telefonos de Mexico ("Telmex")
3 to arbitrate the renewal of the Telmex price cap plan in Mexico.

4 I have also testified on market power and antitrust issues in federal court. In recent work
5 years, I have studied—and testified on—the competitive effects of mergers among major
6 telecommunications firms and of vertical integration and interconnection of
7 telecommunications networks.

8 Finally, I have appeared as a telecommunications commentator on PBS Radio and on The
9 News Hour with Jim Lehrer. My curriculum vita is attached as Exhibit WET-2.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

11 A. I have been asked by Qwest Corporation ("Qwest") to review the direct testimonies filed
12 in this proceeding by Dr. Sarah J. Goodfriend, on behalf of Public Counsel and TRACER,
13 Mr. Don J. Wood, on behalf of Advanced TelCom, Inc. and MetroNet Services
14 Corporation, and Dr. Glenn Blackmon and Ms. Gargi Bhattacharya, on behalf of the Staff
15 of the Washington Utilities and Transportation Commission ("Commission"). My purpose
16 is to evaluate the economic issues raised by those parties regarding Qwest's application for
17 the competitive classification of specified business services in 31 wire centers in
18 Washington.[1]

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[1] Petition of U S WEST Communications, Inc. (n/k/a Qwest Corporation) for Competitive Classification of Business
(continued...)

1 **Q. IN RESPONDING TO TESTIMONY FROM OTHER PARTIES, WHAT IS YOUR**
2 **RECOMMENDATION TO THE COMMISSION?**

3 A. I recommend that the Commission find that the structural conditions exist in the 31 wire
4 centers for granting pricing flexibility for Qwest's specified business services. The
5 Commission is not obliged to make that grant of flexibility conditional on competitive
6 conditions becoming uniformly the same in each of the 31 wire centers. Nor does it have
7 to wait until all customers within a wire center have competitive alternatives available to
8 the same degree. The Commission can meet the standards for competitive classification
9 specified in RCW 80.36.330 without having to first achieve either of those very stringent
10 conditions. Indeed, although I do not necessarily agree with some of Dr. Blackmon's
11 conclusions, I believe his generally balanced analysis of Qwest's Petition and the objective
12 conditions in the 31 wire centers lay the foundation for the Commission to grant the
13 competitive classification and pricing flexibility sought by Qwest.

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

15 A. The economic issues I address in this testimony are based on testimony filed by the parties
16 identified above. To summarize, these issues include (but are not limited to) the following:

17 How should the market be defined for purposes of this proceeding? Does customer
18 heterogeneity matter and should customers be segmented before the state of competition
19 can be assessed?

20 How should information on market share and structural conditions be used? In particular,
21 does Qwest have market power in the 31 wire centers?

(...continued)
Services in Specified Wirecenters ("Qwest's Petition"), June, 2000.

1 Is resale-based competition of limited or no value for determining whether a competitive
2 classification for specified business services is justified?

3 Will the grant of pricing flexibility create prospects for price squeeze of resellers?

4 1. Will denying Qwest's Petition at this time only cause, at worst, marginal harm to
5 Qwest or its customers?

6 2. Can Qwest launch preemptive strikes on customers likely to be targeted by its
7 competitors and, thereby, limit entry?

8 What objective conditions must the Commission consider for making its decision in this
9 proceeding?

II. MARKET DEFINITION

1 **Q. WHAT IS THE PRINCIPAL OBJECTION OF OTHER PARTIES TO THE WAY**
2 **QWEST HAS DEFINED THE RELEVANT MARKET IN ITS PETITION?**

3 A. Qwest's Petition applies for the competitive classification of specified business services at
4 the wire center level. In other words, the relevant market in Qwest's Petition is the wire
5 center (from a geographic standpoint) and the specified set of business services (from a
6 product standpoint). Objections to this approach to market definition have been raised by
7 Dr. Goodfriend and Mr. Wood.

8 On the matter of product scope, Dr. Goodfriend faults [at pages 24 to 25] Qwest's Petition
9 for failing to define the market according to "customer-product clusters," i.e., to first form
10 customer segments for Qwest's business services and then define the market according to
11 that segmentation. Mr. Wood complains [at page 22] that Qwest has included too many
12 services in defining the market, including services that rely on types of network access that
13 are allegedly not yet widely available to competitors and on services that are not even

1 offered by competitors.

2 On the matter of geographic scope, Dr. Goodfriend believes [at page 35] that the wire
3 center is too narrow because certain types of customers, e.g. very large businesses, may be
4 located across multiple wire centers, and the services they need cannot be provisioned from
5 a single wire center. In contrast, Mr. Wood [at page 24] finds the wire center to be too
6 broad because, in his view, customers even within the same wire center may have very
7 different degrees of access to competitive alternatives and competing service providers.

8 **Q. FROM AN ECONOMIST'S STANDPOINT, HOW SHOULD THE RELEVANT**
9 **MARKET BE DEFINED?**

10 A. For the analysis of mergers and market power, it is now standard practice to adopt the
11 directions for market definition specified in the Horizontal Merger Guidelines issued jointly
12 by the U.S. Department of Justice ("DOJ") and the Federal Trade Commission ("FTC").[2]
13 Other parties in this proceeding appear to have also adopted those directions, although, as
14 I explain below, not always faithfully.

15 The product scope of a market is limited to a designated product and its acceptable
16 substitutes. This set of products is defined broadly enough such that any attempt by the
17 profit-maximizing provider of the designated product to raise its price does *not*:

18 cause consumers of that product to seek a substitute *outside* the defined set of products,
19 and

20 cause a large enough reduction of the revenue earned from the defined set of products.

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1 [2] See U.S. Department of Justice and Federal Trade Commission, "Horizontal Merger Guidelines," issued April 2,
2 1992 and revised April 8, 1997.

1 Similarly, the geographic scope of a market is limited to a geographic region or area such
2 that any attempt by the profit-maximizing provider of the designated product to raise its
3 price does *not*

4 cause consumers of that product to seek a substitute from a source *outside* the defined
5 geographic region or area, and

6 cause a large enough reduction of the revenue earned within the defined geographic
7 region or area.

8 Going beyond the Horizontal Merger Guidelines, the FCC recognizes substitutability in
9 *both* demand and supply as instruments for identifying the product scope of the market.[3]
10 From the demand standpoint, consumers should have not only a choice of service providers
11 but also be able to receive broadly comparable services and associated service packages
12 from all of those service providers. From the supply standpoint, service providers should
13 either rely on their own facilities to provide those services and associated service packages
14 or offer comparable services by leasing capacity from, or reselling service offerings of, the
15 facilities-based carriers.

16 Q. **DO YOU AGREE WITH DR. GOODFRIEND'S SUGGESTIONS ABOUT HOW THE**
17 **RELEVANT MARKET SHOULD BE DEFINED FOR THE PURPOSES OF THIS**
18 **PROCEEDING?**

19 A. No. A case in point is the test Dr. Goodfriend applies [at page 20] when she states: "The
20 relevant product market is defined as the smallest group of products for which Buyer A
21 suffers the hypothesized price increase rather than 'switch' to an alternative." This test is

1 [3] Federal Communications Commission, *In Re: Motion of AT&T Corp to be Reclassified as a Non-Dominant Carrier*,
2 Order ("AT&T Non-Dominant Order"), CC Docket 79-252, released October 23, 1995, at ¶23.

1 specifically couched in terms of how an *individual* customer is likely to be affected by any
2 price increase. The Horizontal Merger Guidelines instead conducts a much broader test:

3 Absent price discrimination, … the product market [is] a product or group of
4 products such that a hypothetical profit-maximizing firm that was the only present
5 and future seller of those products ("monopolist") likely would impose at least a
6 "small but significant and nontransitory" increase in price. … If the alternatives
7 were, *in the aggregate*, sufficiently attractive at their existing terms of sale, an
8 attempt to raise prices would result in a *reduction of sales large enough* that the
9 price increase would not prove profitable, and the tentatively identified product
10 group would prove to be too narrow. [Horizontal Merger Guidelines, Section 1.11,
11 emphasis added]

12 This is a broader test because it looks at how *all* customers affected by a price increase seek
13 out competitive alternatives and whether the reduction of sales revenue is large enough to
14 make the price increase unprofitable. A single buyer—as in Dr. Goodfriend's test—may
15 not be representative of all customers, i.e., that buyer may not regard the same product as
16 the "next-best" substitute that other customers do. Also, the inclination of a single buyer
17 to shift to an alternative product in the face of a price increase may not be shared by other
18 customers, or even shared to the same degree. Hence, the act of one customer's shifting
19 to a substitute may not cause the "large enough" reduction in sales revenue envisioned by
20 the Horizontal Merger Guidelines test. The primary effect of Dr. Goodfriend's test would
21 be to define the product scope of the relevant market too narrowly and involve a far greater
22 degree of market segmentation than required by the Horizontal Merger Guidelines.

23 Q. DR. GOODFRIEND ALLEGES [AT PAGE 24] THAT QWEST'S PETITION
24 IGNORES "REAL WORLD PRODUCT AND CUSTOMER SEGMENTATION,"
25 WITH THE CONSEQUENCE THAT IT DISREGARDS THE POSSIBILITY THAT

1 **NOT ALL CUSTOMERS HAVE COMPETITIVE ALTERNATIVES, OR HAVE**
2 **THOSE ALTERNATIVES TO THE SAME DEGREE. IS THERE MERIT TO THAT**
3 **ALLEGATION?**

4 A. No. Dr. Goodfriend appears to confuse the level of disaggregation and detail that typically
5 characterizes marketing strategies and plans with that needed to define the relevant market
6 in accordance with the standards of the Horizontal Merger Guidelines. There is no support
7 either from the Horizontal Merger Guidelines or economic theory for the idea that only
8 those customers that have identical competitive alternatives, or have those alternatives to
9 the same degree, belong in the relevant market. In fact, this places the emphasis and the
10 defining criterion in the wrong place. For defining a market, it is only necessary to identify
11 the designated product, the reasonably exhaustive set of acceptable substitutes, and the
12 smallest geographic area within which those products may be available to consumers. The
13 market is *not* defined, as Dr. Goodfriend would have it, in terms of *customer* characteristics
14 or profiles. In fact, it is precisely because consumer preferences vary for the same
15 underlying product that prices may vary to different consumers even in effectively
16 competitive markets.[4]

17 Q. **DO YOU AGREE WITH MR. WOOD'S SUGGESTIONS ABOUT HOW THE**
18 **RELEVANT MARKET SHOULD BE DEFINED FOR THE PURPOSES OF THIS**

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1 [4] In fact, the Commission recognized this very fact when it remarked in its decision on U S WEST's petition for
2 competitive classification of high-capacity services: "Competitive prices range from below U S WEST's rates
3 to well in excess of those rates, indicating that a variety of competitive market conditions are being met."
4 Washington Utilities and Transportation Commission, *In the Matter of the Petition of U S WEST*
5 *Communications, Inc, for Competitive Classification of its High Capacity Circuits in Selected Geographical*
6 *Locations*, Docket No. UT-990022, Eighth Supplemental Order Granting Amended Petition for Competition
7 Classification ("Hicap Competitive Classification Order"), December 1999.

1 **PROCEEDING?**

2 A. No. Mr. Wood's main disagreement with Qwest's Petition concerns the choice of the wire
3 center as the appropriate geographic area for defining the market for Qwest's business
4 services. Again, Mr. Wood's concern is that not all customers within a wire center are
5 likely to have the same degree of access to the designated product and its acceptable
6 substitutes (available from alternative sources). For example, he states [at page 25]:

> 7 Some customers served by a given wire center, especially those located on or very
> 8 near a competitive carrier's fiber route, may have reasonably available competitive
> 9 alternatives for a given business service. Other customers served by that same wire
> 10 center, however, may have no alternatives at all. Unfortunately for this second
> 11 group of customers, Qwest is asking for competitive classification—and the
> 12 commensurate upward and downward pricing flexibility—for the service for the
> 13 entire wire center area.

14 As I explained earlier, the implication that all customers must have the same degree of
15 access to competitive alternatives has no economic justification. Even in unregulated and
16 competitive markets, there is no inherent guarantee that all customers (even those, in Dr.
17 Goodfriend's words, "similarly situated" in their personal circumstances) can access the
18 same competitive alternatives, or to the same degree. Rather, the sole question is whether
19 there could be customers within a wire center who don't have *any* acceptable competitive
20 alternative at all. My belief is that Qwest's Petition and accompanying testimony by Qwest
21 witnesses Theresa Jensen and David Teitzel have demonstrated clearly that, in the 31 wire
22 centers in question, alternative service providers are present and in a position to provide
23 one or more alternative services, whether through resale, the use of unbundled loops, or
24 their own facilities.

1 Key to the selection of the wire center as the appropriate market is the fact that federal and
2 state laws now require that competing providers be able to collocate their facilities on the
3 premises of incumbent carriers like Qwest. Collocation provides the ability to competing
4 carriers to actually or potentially provide their alternatives to all of the incumbent carrier's
5 customers, regardless of where they are located within the geographic area served by the
6 wire center.

7 Q. **SHOULD *POTENTIAL* SUPPLY OF COMPETITIVE ALTERNATIVES COUNT**
8 **WHEN ANALYZING THE RELEVANT MARKET?**

9 A. Yes. The Horizontal Merger Guidelines require that once a market has been defined (with
10 respect to product and geographic scope),

11 a relevant market must be *measured* in terms of its participants and concentration."
12 Participants include firms currently producing or selling the market's products in
13 the market's geographic area. In addition, participants may include other firms
14 depending on their *likely* supply responses to a "small but significant and
15 nontransitory" price increase.[5]

16 The Horizontal Merger Guidelines then elaborates on this theme as follows:

17 In addition, the Agency will identify other firms *not currently producing or selling*
18 the relevant product in the relevant area as participating in the relevant market if
19 their inclusion would more accurately reflect *probable* supply responses. … These
20 supply responses must be likely to occur *within one year* and without the
21 expenditure of significant sunk costs of entry and exit, in response to a "small but
22 significant and nontransitory" price increase.[6]

23 This is a clear statement of the requirement to include potential sources of supply when
24 measuring the relevant market. In practical terms, this implies the inclusion of not merely

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1 5 Horizontal Merger Guidelines, Section 1.0. Emphasis added.
1 6 *Id.*, Section 1.32. Emphasis added.

1 collocated or competitively located alternative carriers that are actually providing
2 alternatives to the Qwest services for which competitive classification is being sought, but
3 also other carriers who have established a physical presence at this time but have negligible
4 supply or market share. This definition also necessarily includes resellers and carriers that
5 can address the incumbent carrier's customers through unbundled loops and related
6 facilities leased from the incumbent.

7 Q. **HOW CAN WE BE SURE THAT THESE SOURCES OF POTENTIAL SUPPLY DO**
8 **NOT HAVE SIGNIFICANT SUNK COSTS, AS REQUIRED FOR INCLUSION?**

9 A. The telephone network is highly capital-intensive and much of the capital or facilities cost
10 tends to be sunk, i.e., irreversible. Federal and state laws, however, have now made those
11 costs avoidable for a variety of non-incumbent carriers. A competitor, if it should so
12 choose, may enter the market with its own facilities. However, other competitors not in a
13 position to commit to significant sunk network costs, but able to provide innovative and
14 useful services if given the resources, can now lease parts of—and even whole platforms
15 from—the incumbent carrier's network in order to provide their services. This unfettered
16 and cost-based access to the most expensive components of network costs removes a
17 significant burden and source of risk for new competitors. Should any of those competitors
18 fail or otherwise have to exit the market, it could do so with minimum disposal or salvage
19 cost and escape the high cost burden associated with owning network facilities. To be sure,
20 some entrants—whether leasing or constructing their own facilities—will have *some* sunk
21 cost, e.g. that associated with developing a customer base and establishing name
22 recognition and a market presence. However, these costs are neither as significant as those

1 associated with network facilities, nor are they unique to the entrant. Other entrants
2 currently supplying other services, e.g. long distance carriers, may not face even these
3 minimal sunk costs.

III. MARKET SHARE AND CONCENTRATION MEASURES

1 **Q. OTHER PARTIES IN THIS PROCEEDING HAVE ALL USED MARKET SHARES**
2 **TO MAKE THEIR RESPECTIVE POINTS, AS HAVE QWEST'S OWN**
3 **WITNESSES. WHAT ROLE SHOULD MARKET SHARE PLAY IN ANALYZING**
4 **QWEST'S PETITION?**
5 A. As all parties in this proceeding have apparently agreed, market share analysis should be
6 only one component of the overall analysis of Qwest's Petition. Other, equally important,
7 factors in that analysis are subsumed under the label "structural conditions." These include
8 entry and exit conditions and the environment in which services are priced.[7]

9 The real issue is not market share *per se*; rather, it is that Qwest, the incumbent carrier, not
10 retain the ability to exercise market power in any of the 31 wire centers once a competitive
11 classification and pricing flexibility are granted. When viewed in isolation, market share
12 is not necessarily a good predictor of *future* market behavior of the incumbent firm,
13 particularly in a market in which concentration starts at 100 percent (due to regulation) but
14 is expected to decline with competitive entry.

1 [7] The environment in which incumbent carriers with universal service and carrier of last resort obligations price their
2 services should not be overlooked. Prices of several services (including business-related services) often
3 include contribution toward the present subsidy for residential basic exchange service rates. Until universal
4 service reform is completed, the need for such contribution will not disappear. The fact that those prices
5 would be higher than without support for universal service should not be confused with the exercise of market
6 power.

1 **Q. WHAT IS MARKET POWER AND HOW DOES THE MARKET PRICE INDICATE**
2 **WHETHER COMPETITION IS EFFECTIVE?**
3 A. The Horizontal Merger Guidelines define market power of a seller as the "ability profitably
4 to maintain prices above competitive levels for a significant period of time" and/or lessen
5 competition in non-price dimensions such as product quality, service, or innovation.[8] Other
6 definitions are similar: the ability of a firm "to raise prices by restricting output"[9] or "to
7 raise and maintain prices above the competitive level without driving away so many
8 customers as to make the increase unprofitable."[10] The market price is a barometer of
9 market conditions that reflects not only the complex interaction of supply and demand
10 (expressed through the market participation of individual consumers and suppliers), but
11 also whether any particular influence (exerted by a single supplier or coalition of suppliers,
12 and similarly for consumers) on the price is disproportionately large. In the markets
13 defined by
14 the 31 wire centers in question, the question ought to be whether the prices charged by
15 different competitors for comparable services are, in some sense, themselves comparable
16 or "close." If they are, then the large discrepancies among their current market shares
17 (however measured) do not matter. As long as consumers have (1) a choice of suppliers
18 or service providers and (2) a choice of services and service prices, no single supplier can
19 expect to extract unreasonably high prices. It is this lack of market power that should
20 signify the presence of effective competition despite the current range of market shares.

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1 8 Horizontal Merger Guidelines, Section 0.1 and fn. 6.
1 9 A. Areeda and D. Turner, *Antitrust Law*, 322, 1978.
1 10 W.M. Landes and R.A. Posner, "Market Power in Antitrust Cases," *Harvard Law Review*, 94, 1981, at 94.

1 **Q. WHAT IS YOUR ASSESSMENT OF HOW THE OTHER PARTIES HAVE**
2 **PROPOSED USING MARKET SHARE INFORMATION IN THIS PROCEEDING?**

3 A. Staff witnesses Dr. Blackmon and Ms. Bhattacharya make the most measured use of market
4 share statistics, although the data on which their market share and market concentration
5 assessments rest have important limitations. For example, as Ms. Bhattacharya concedes
6 [at page 5], Staff's market share analysis could only be conducted at an exchange—rather
7 than a wire center—level, and may have overstated the degree of concentration in any wire
8 center among the 31 being considered in this proceeding. That is because, as Ms.
9 Bhattacharya notes, the concentration level in each of the 31 wire centers at issue is likely
10 to be less than in the other wire centers for which a competitive classification is not being
11 sought.

12 In a related vein, Dr. Blackmon acknowledges [at page 22] that a market share analysis
13 based on *lines* is more likely to overstate concentration in the market because a
14 disproportionately small percentage of access lines may account for a disproportionately
15 large percentage of revenues, particularly in light of the known fact (as Dr. Goodfriend
16 concedes [at page 43]) that competitors tend initially to concentrate on securing the
17 business of large, high-volume customers to the neglect of smaller customers. Therefore,
18 in the early aftermath of the opening of a market to competition, conventional market share
19 analysis tends to overstate the degree to which the market is actually concentrated and the
20 exercise of market power that is actually possible.

21 Mr. Wood's own analysis of market shares overlooks the fundamental question: what

1 evidence is there in the market share numbers that suggests that Qwest *will* exercise market
2 power following a grant of pricing flexibility in the 31 wire centers? He characterizes his
3 impression of the market share data [at page 28] thus: "the Qwest data does not show that
4 Qwests [sic] lack market power for the services in question." In my opinion, having
5 invoked market share data in support of his contention, Mr. Wood has the burden of
6 proving affirmatively that the data show that Qwest *is* able and willing to exercise market
7 power for the services in question. The problem here, of course, is the inappropriate use
8 of a fundamentally *backward*-looking index of market structure—the market share always
9 shows how things once were, but not necessarily how they will be—to make a *forward*-
10 looking prediction about future market conduct. Stated another way, high market share is
11 neither necessary nor sufficient for a firm to exercise market power.[11]
12 Finally, in none of the market share analysis reported by the other parties have adjustments
13 been made for the true size of the market for the services in question. In particular, no
14 account has been taken of the number of lines or customers currently served by competitive

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1 [11] That high market share *per se* is not sufficient for market power is evident from the theory of contestable markets
2 which predicts—much in the fashion of the Horizontal Merger Guidelines—that when the sunk costs of entry
3 and exit are low, small fringe firms can quite easily discipline the pricing conduct of the large incumbent. As
4 I argued earlier, the most significant sunk costs facing a potential entrant have been mitigated by federal and
5 state laws that make available the incumbent's network, in part or whole, to that entrant. In 1995, when the
6 FCC reclassified AT&T as a non-dominant carrier, AT&T still controlled over half the interstate toll
7 revenues, and the four facilities-based long distance carriers controlled all but 13.8 percent of revenues. That
8 high market share is also not necessary for market power is evident from the possibility of what the Horizontal
9 Merger Guidelines (Section 2.1) describes as "coordinated interaction." A group of firms producing a
10 homogeneous product, each with relatively "small" market share, can nevertheless use tacit collusion to
11 sustain a high price or create a high price umbrella and, thereby, reap the fruits of market power. There is
12 reason to believe that this type of behavior was displayed by the three or four largest facilities-based long
13 distance carriers during most of the 1990s. See, e.g., Paul W. MacAvoy, *The Failure of Antitrust and*
14 *Regulation to Establish Competition in Long-Distance Telephone Services*, Cambridge, MA: MIT Press and
15 Washington, D.C.: AEI Press, 1996, Chs. 3-5, and David E.M. Sappington and Dennis L. Weisman,
16 *Designing Incentive Regulation for the Telecommunications Industry*, MA: MIT Press and Washington, D.C.:
17 AEI Press, 1996, Ch. 8.

1 carriers who were *never* customers of Qwest. In other words, competitive losses are not
2 the only way for market shares to be redistributed between Qwest and its competitors.

3 Q. **IF MARKET SHARE MUST BE USED AS ONE INDICATOR OF FUTURE**
4 **MARKET BEHAVIOR OF INCUMBENT CARRIERS, WHAT IS THE BEST WAY**
5 **TO USE THAT MEASURE?**

6 A. Measuring market share in terms of *capacity* or the stock of productive facilities, rather
7 than lines or revenues, gives a more reliable predictor of the firm's future (strategic)
8 behavior.[12] The capacity-based share measures the total volume of output that the firm's
9 installed productive facilities could produce. For this reason, a firm's capacity is a
10 determinant or driver of outcomes such as the number of lines sold or revenue dollars
11 earned. Larger capacity usually translates into an ability to serve greater volumes of
12 existing or new demand. The capacity share measure is sometimes depicted directly in
13 terms of the size of the facilities themselves (e.g., the number of route-miles of installed
14 fiber from which various services could be provided).[13]

15 Q. **WHAT IS THE ECONOMIC SIGNIFICANCE OF THE CAPACITY-BASED**
16 **MEASURE OF MARKET SHARE?**

17 A. As the FCC noted in 1995 (while declaring AT&T to be a non-dominant carrier in the

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1 [12] As Dr. Goodfriend notes [at page 43] and the Horizontal Merger Guidelines states [at Section 1.41], market shares
2 should be calculated using the best indicator of firms' future competitive behavior. For differentiated
3 products, sales revenues are a better indicator while, for undifferentiated products, physical capacity is a more
4 suitable indicator. Contrary to Dr. Goodfriend's assertion, however, capacity should be understood as the
5 stock of productive facilities rather than the access lines over which customers receive services. Capacity
6 refers to how quickly service provision can be expanded; access lines provide no such information.

1 [13] In its Hicap Competitive Classification Order, the Commission noted how, presently, "network maps in Seattle and
2 Spokane virtually follow the grid pattern of the streets in the downtown business core, and fiber rings trace
3 major arteries throughout the wire centers in the petition."

1 interstate long distance market), despite still controlling over half the interstate long
2 distance revenues, AT&T was incapable of unilaterally raising prices because its principal
3 competitors (then MCI and Sprint) possessed enough network capacity to quickly deploy
4 their rival services nationwide and, in effect, to any AT&T customer faced with higher than
5 competitive prices. The existence of spare capacity acts as a signal to all participating firms
6 that efforts to raise prices above competitive levels would be defeated. While the
7 development of facilities-based competition is still at an early stage in Washington, in the
8 31 wire centers in question, Qwest has cataloged sufficient facilities-based entry so that the
9 exercise of market power will not be possible. Of greatest significance to this matter is the
10 fact (documented by Mr. Teitzel in his Direct Testimony) that many of Qwest's competitors
11 in the 31 wire centers are not neophytes but, rather, are large, well-financed and facilities-
12 based competitors like AT&T and WorldCom. It is hard to overlook the significance of
13 that kind of competitive presence in the wire centers at issue.

14 Q. IS THERE SOME SPECIFIC FORM OF EVIDENCE OF THAT KIND OF
15 COMPETITIVE PRESENCE IN THE GEOGRAPHIC AREAS DEFINED BY THE
16 31 QWEST WIRE CENTERS?

17 A. Yes. According to the *Local Exchange Routing Guide* ("LERG"), competitors have
18 installed 257 switches in the 31 wire centers in Qwest's Petition. The aggregate switch
19 counts are shown in Table 1.

Table 1. Number of Competitor Switches in the Nine Exchanges in Qwest's Petition

Exchange	Number of Switches
Auburn	22
Bellevue	39
Issaquah	14
Kent	20
Renton	22
Seattle	52
Spokane	25
Tacoma	36
Vancouver	27
Grand Total	**257**

The same data show that these switches belonged to 57 different competitors, of which at least 33 were CLECs and the rest were competitive access providers, wireless and PCS providers, and others.[14] The CLEC group was distinguished by the presence of AT&T, GTE, MCIMetro, WorldCom, and other large and well-financed companies.

Q. HOW DO YOU RESPOND TO DR. GOODFRIEND'S CAUTION [AT PAGE 45] TO NOT DOUBLE OR TRIPLE COUNT EXCESS CAPACITY WHEN TOUTING CAPACITY AS A DETERRENT AGAINST THE EXERCISE OF MARKET POWER?

A. I agree that multiple-counting capacity would be a mistake if the assets involved are indeed specific to the services that are produced. However, it is well known that many of the network facilities used by local exchange carriers can be used to provision several different services and network functionalities, i.e., the facilities are shared. The expansion of capacity in that context expands the ability to supply several different services

[14] Source: LERG, Telcordia Technologies, Traffic Routing Administration, August 1, 2000,

1 simultaneously. Also, much of Dr. Goodfriend's concern arises from her inclination to
2 view the product market as a collection of separate customer-product clusters or segments.
3 As I stated earlier, this is the wrong orientation to adopt for the present proceeding.

4 **Q. SEVERAL PARTIES IN THIS PROCEEDING HAVE RELIED ON A MEASURE OF**
5 **MARKET CONCENTRATION CALLED THE HERFINDAHL-HIRSCHMAN**
6 **INDEX ("HHI"). PLEASE EXPLAIN HOW THAT MEASURE SHOULD OR**
7 **SHOULD NOT BE USED.**

8 A. Markets change and evolve over time as production conditions change, new products are
9 introduced, the regulatory climate changes, and a whole host of other factors also evolve.
10 In the U.S., federal antitrust authorities have traditionally monitored changes in market
11 share only when events in the market have given rise to *increasing* market concentration.
12 It is commonplace for these agencies to evaluate the potential state of competition in a
13 market when, for example, mergers happen between competing firms or when one firm
14 acquires a competitor. For this purpose, the FCC relies on the HHI to measure the change
15 in market concentration following a merger or acquisition. As explained by Ms.
16 Bhattacharya, the HHI is simply the sum of the squared market share of each firm in a
17 market.[15] To use this index for antitrust purposes, the Horizontal Merger Guidelines were
18 issued with certain benchmark values of the HHI for evaluating the state of potential
19 competition following a merger or acquisition. However, as is evident from the way the

1 [15] Theoretically, the range of the HHI is between 10,000 and zero. In a market with a single firm (pure monopoly), the
2 market share is 100 percent and the HHI is $100 \times 100 = 10{,}000$. At the other extreme, if there are thousands
3 of competing firms, each with an infinitesimally small market share, then the sum of their respective squared
4 market shares would be quite close to zero.

1 DOJ uses the HHI, it is not so much the actual *level* of the HHI itself that the DOJ monitors
2 closely as it is the *increase* in the HHI following a merger or acquisition. The greater the
3 increase in the HHI, the more worrisome the consequences of the market event would
4 appear.

5 Typically, HHI values between 1,000 and 1,800 trigger no alarms from an antitrust

1 perspective. However, these are arbitrary benchmarks based on a judgment of what the
2 HHI would be in a market in which market power is likely to be absent. But, does that
3 mean that market power can *never* exist in a market when the HHI is less than 1,800?
4 Alternatively, must market power *necessarily* arise in a market in which the HHI exceeds
5 1,800? As I explained earlier, the answer to both questions is "no." As with market share,
6 a particular value of the HHI is neither necessary nor sufficient for market power to exist
7 or be exercised. For this reason, the DOJ typically confines its antitrust analysis to
8 judgments about how steeply the HHI *increases* because of specific market events, rather
9 than what level the HHI attains in the process.

10 There is an important asymmetry between increasing and decreasing concentration in a
11 market and, for this reason, the HHI is typically of no practical value when concentration
12 is decreasing. When a market with a single firm is opened to competition, the
13 HHI—measured on the basis of whatever outcome or driver—necessarily starts out at its
14 ceiling value of 10,000 (100 percent squared) and then declines as that firm loses market
15 share to new entrants. Naturally, it takes considerable time and effort on the part of those
16 entrants to bring about significant erosion in the market share of the incumbent firm. Does
17 that mean that the HHI in that market would have to fall from 10,000 to near 1,800 before
18 the market could be declared competitive? Absolutely not. The critical test there is not
19 whether the HHI has fallen precipitously but, rather, whether the incumbent firm has the
20 ability to exercise market power even in the early stages of competition when the HHI is
21 necessarily high. Without that ability to exercise market power, a high HHI says nothing
22 about the actual and potential state of competition in the market. This fact is particularly

1 true for regulated telephone companies whose initial market share of 100 percent was due
2 to regulation rather than to any inherent characteristic of the firm or the technology.[16]

3 PLEASE EXPLAIN WHY THE HHI IS AN INADEQUATE INDICATOR OF MARKET
4 BEHAVIOR IN THESE CIRCUMSTANCES.

5 A. First, it is obvious that prior to the authorization of local exchange competition (under
6 Sections 251 and 252 of the Telecommunications Act of 1996), each market was served by
7 a single incumbent local exchange carrier ("LEC") and, therefore, had an HHI of 10,000.
8 However, because that LEC's service prices were all subject to regulatory approval and
9 control, there could be no prospect of the anti-competitive behavior that an HHI of 10,000
10 would otherwise signify.

11 Second, as I noted earlier, with the market for interstate long distance services being now
12 widely considered to be competitive, AT&T—the once dominant firm in that market—is
13 no longer price regulated. Yet, according to the latest revenue market share statistics, the
14 HHI in that market is 2,641 and, in 1995, when AT&T was declared a non-dominant carrier
15 by the FCC, the HHI was 3,197.[17] How, then, could that market be viewed as being
16 competitive?

17 The answer, as I noted earlier, is the presence of significant excess capacity in the long
18 distance market.[18] In fact, as the FCC has recognized, each of the largest three long distance

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1 [16] See Landes and Posner, *op cit*.
1 [17] FCC, Common Carrier Bureau, *Trends in Telephone Service*, March 2000, Table 11.3.
1 [18] For a sense of just how much capacity growth has occurred in the long distance market, see FCC, Common Carrier
2 Bureau, *Fiber Deployment Update, End of Year 1998*, September 1999, Table 1 which indicates that IXCs'
3 fiber route miles have about doubled in the last decade and grown eight-fold since 1985.

1 carriers *individually* has enough installed capacity to be able to serve the demand of the
2 others' customers besides its own.[19] As a consequence, there is little ability on the part of
3 any of the large facilities-based long distance carriers to exercise strategic control over the
4 market price.

5 Third, strict reliance on the DOJ's HHI benchmarks can lead to absurd conclusions. A
6 market with four firms that all have the *same* market share (i.e. 25 percent) would have an
7 HHI of 2,500—well in excess of the 1,800 benchmark level. Yet, could anyone seriously
8 characterize such a market as having a single firm capable of exercising market power? Of
9 course not. There is a remarkable corollary to this example: 2,500 is also the *lowest* HHI
10 that could ever be achieved in a market with only four firms.[20] Thus, no amount of erosion
11 of Qwest's market share could *ever* reduce the HHI in that market below the 1,800
12 benchmark level. Clearly, this means that *any* implication that further erosion of Qwest's
13 market share would be needed before a "safe" HHI level is reached can *never be true*. Even
14 if Qwest were to disappear altogether from that market, the HHI would not sink to or below
15

1 [19] See the AT&T Non-Dominant Order, ¶70. AT&T itself made the same point and rejected market share as a valid
2 measure of market power, pointing to the excess capacity in the interstate long distance market as a constraint
3 on the ability to restrict output. *Id*., ¶42.

1 [20] In fact, it would take between five and six equal-share firms to reduce the HHI to 1,800 or below. But, even with
2 four equal-share firms, as long as collusion—tacit or overt—is prohibited, no one can seriously argue that the
3 market cannot be competitive.

1,800. No sensible public policy in Washington could be based on the faulty expectation that with enough reduction of Qwest's market share, the market could safely be declared a competitive zone.

Finally, suppose the market has a single facilities-based firm with 40 percent market share and 30 resellers, each with 2 percent market share. Despite such a lopsided market structure, the HHI in that market would only be 1,720, well within the 1,800 benchmark level. Does that mean that market power could not be exercised in that market? Not necessarily because that depends on the type of resale permitted. If resale is based on a wholesale discount off the retail price set by the lone facilities-based carrier and, if that retail price is higher than what would prevail in a competitive market, then the resellers would likely charge prices that are higher than the competitive price as well (a fact noted by the other parties in this proceeding). By not being charged the competitive price, consumers would be worse off, and the resellers would, in effect, be strung along with the market power of the facilities-based carrier that set the high retail price in the first place. On the other hand, if resale is conducted on the basis of volume or term discounts, then the lone facilities-based carrier would, by raising its retail price, risk losing market share to resellers who could effectively undercut its price.

I do not mean to suggest that the HHI has no value at all for understanding potential market behavior of firms. However, it is dangerous to rely entirely on the HHI for determining whether a market is competitive or has the potential for the exercise of market power by one or more firms in it. Also, as I pointed out earlier, the change in the HHI is more

1 informative about potential market behavior when concentration in a market is increasing
2 than when it is decreasing. Finally, measures of concentration of revenue, customers or
3 lines is not as relevant for predicting market power in these markets as concentration of
4 capacity.

5 **Q. PLEASE ASSESS DR. BLACKMON'S USE OF THE HHI TO INFER THAT A**
6 **COMPETITIVE CLASSIFICATION IS NOT WARRANTED IN FIVE OF THE**
7 **NINE EXCHANGES IN WHICH QWEST IS SEEKING SUCH CLASSIFICATION.**

8 A. I disagree with Dr. Blackmon's analysis and conclusions in this regard for three reasons.
9 First, for reasons I have explained, market share or HHI information (particularly in a
10 market with decreasing concentration) cannot be relied upon nearly as much as objective
11 structural conditions to make any assessment about the incumbent firm's potential market
12 power. Dr. Blackmon concedes [at page 17] that those structural conditions are "similar"
13 in *all* of the nine exchanges, not just the four for which he recommends a competitive
14 classification. There is, thus, not even a *prima facie* case for objecting to such a
15 classification in the other five exchanges.

16 Second, Dr. Blackmon argues [at page 18] that "to grant competitive classification, the
17 [Commission] must conclude that effective competition *actually* exists in that market."[21]
18 This contradicts and falls short of the standard set by antitrust authorities, namely, that the
19 relevant market be measured by including *potential* competitors or competitors who may
20 presently not actually supply a competitive product, but clearly has the ability to do so over

1 [21] Emphasis in original.

1 the foreseeable future (such as one year). Having concluded that competitors are present
2 in the five exchanges for which he recommends denying the competitive classification, Dr.
3 Blackmon should reassess the degree of actual and potential competition in those
4 exchanges in accordance with the standard employed by antitrust authorities.

5 Third, the informational value of the HHI, particularly in a market with decreasing
6 concentration, is frequently unreliable. Dr. Blackmon's sole reason for rejecting
7 competitive classification for the five exchanges is that the HHI in each of them exceeds
8 5,000. There is nothing sacrosanct or particularly dispositive about this threshold which,
9 as Dr. Blackmon himself admits, was never enforced when Staff recommended competitive
10 classification of the intraLATA toll service provided by the erstwhile GTE and U S WEST
11 in Washington.[22] I agree completely with Dr. Blackmon that structural factors, more than

1 [22] Indeed, just as Ms. Bhattacharya [at page 7] and Dr. Blackmon [at page 18] point out that an HHI of 5,000 can arise
2 for two firms with equal market share, the threshold of 5,000 can be reached and exceeded under several
3 different configurations of market share. For instance, a more typical example of a market recently opened
4 to competition and with decreasing concentration would be one in which the incumbent has a market share
5 of 70 percent and six "fringe firms" competing with the incumbent have 5 percent market share each. The
6 HHI in that case would be 5,050. The competitive implications (particularly that for the exercise of market
7 power by the incumbent) could be quite different despite similar values for the HHI. Arguably, in the market
8 with one dominant firm and a competitive fringe, the incumbent may not be able to exercise price leadership
9 if the fringe firms face low barriers to entry and exit and can contest or police the pricing actions of the
10 incumbent. This would be particularly likely in situations in which the fringe firms are "small" only within
11 the context of the particular market being examined but (like AT&T and WorldCom) are otherwise very well
12 endowed with resources and have the market experience to act nimbly and effectively to counteract unilateral
13 actions of the incumbent firm in that market. In contrast, in the market with two equally sized firms, while
14 the exercise of market power by any one firm may, at first glance, appear impossible, antitrust authorities like
15 the DOJ and FTC have recognized that those firms may be well situated to pursue opportunities for
16 "coordinated interaction," i.e., tacit collusion or at least a reluctance to engage in serious price competition.
17 (See the Horizontal Merger Guidelines, Section 2.1.) It can be shown that the two equal-sized firms can
18 maximize their individual and collective profits by engaging in such coordinated interaction (particularly for
19 an undifferentiated product) rather than by competing seriously. The two market situations—and their likely
20 outcomes—are very different, despite the similar HHI values. This clearly underscores the need to look
21 beyond the HHI for making decisions about competitiveness—something Dr. Blackmon seems to have done
22 selectively for intraLATA toll.

1 any index of market concentration, ought to determine whether an exchange is eligible for
2 competitive classification. While admitting that structural factors are similar across all nine
3 exchanges (and specifically using an HHI of 5,000 to recommend denying competitive
4 classification for five exchanges), Dr. Blackmon appears to contradict himself [at page 19]
5 by falling back on a "market structure [in the five exchanges] is much less certain"
6 justification for his recommendation. This justification, and the whole argument on which
7 it is premised, seems to want to have it both ways.

IV. OTHER REASONS PROVIDED BY OTHER PARTIES FOR DENYING QWEST'S PETITION

1 **MR. WOOD ASSERTS [AT PAGE 7] THAT DELAYING A GRANT OF QWEST'S**
2 **PETITION WILL NOT MATERIALLY BENEFIT CONSUMERS IN MARKETS**
3 **WHERE EFFECTIVE COMPETITION ALREADY EXISTS. DO YOU AGREE?**
4 A. Of course not. This assertion relies on a perplexing chain of reasoning and justifications. To
5 understand why, I first reproduce the relevant passages from Mr. Wood's testimony [at
6 page 7]:

7 RCW 80.36.300 (5) states that it is the policy of the state to "[p]romote diversity
8 in the supply of telecommunications services and products in telecommunications
9 markets throughout the state." It is no secret that in order to successfully
10 accomplish this objective, the flexibility afforded the incumbent former monopoly
11 provider must be timed correctly. If the incumbent is granted too much flexibility
12 too soon, it will be able to eliminate existing competition and create an effective
13 barrier to further competitive entry. If flexibility for the incumbent is delayed
14 unnecessarily, *there may be one fewer competitor in the market for some services*.
15 While an additional competitor may provide some marginal consumer benefit, *its*
16 *presence is not necessary in order for consumers to receive the benefits of lower*
17 *prices and quality service*. This observation is not intended to be disparaging in
18 any way of Qwest and its services, but the inescapable fact remains that if Qwest's

1 claims in its petition are valid—that effective competition currently exists for all
2 business services for all customers served by the 31 identified wire centers—the
3 presence of one additional competitor will not provide a material incremental
4 benefit to consumers. That is because in a market characterized by effective
5 competition, no provider can increase its price without suffering a loss of market
6 share. It is a matter of economic definition that prices in such a market are at
7 competitive levels, and would not be reduced by the presence of an additional
8 carrier. The Commission should, as the statute permits, allow Qwest to exercise
9 additional pricing flexibility over time as competitive conditions make it possible
10 for Qwest to exercise such flexibility without harming consumers or the
11 development of competition. The Commission should time the implementation of
12 such flexibility as precisely as it can, because doing so will provide the greatest
13 benefit to both consumers and competing carriers (including Qwest). When in
14 doubt, however, the Commission should err on the side of caution: allowing
15 flexibility too early will create a scenario of substantial harm to consumers, benefit
16 to Qwest, and harm to its competitors. If flexibility is delayed longer than
17 necessary consumers will be unaffected, *Qwest will suffer some harm*, and its
18 competitors will be unaffected.[23]

19 As these passages from his testimony demonstrate, Mr. Wood evidently believes that:

20 Qwest can provide, at best, little "material incremental benefit" to consumers in an
21 effectively competitive market. Hence, Qwest's exclusion from the same flexibility
22 enjoyed by Qwest's competitors will make little difference to the success of competition
23 in the market.

24 Granting flexibility to Qwest "too early" will inevitably lead to higher prices for
25 consumers and harm to competitors.

26 In denying Qwest flexibility in an effectively competitive market, Qwest may suffer
27 "some harm" but its competitors and customers will be unaffected. Hence, there is little
28 or no social welfare cost to denying Qwest that flexibility.

29 These claims are all false and lead to an indefensible conclusion.

30 **PLEASE EXPLAIN WHY YOU BELIEVE TO BE FALSE MR. WOOD'S CLAIM THAT**

31 **QWEST'S PRESENCE IN AN ALREADY COMPETITIVE MARKET WILL MAKE**

1 [23] Footnote omitted. Emphasis added.

1 **LITTLE MATERIAL DIFFERENCE.**

2 A. This claim is false because it is based on circular reasoning. Mr. Wood appears to be
3 saying that when a market is effectively competitive, the addition of another competitor
4 cannot do much to lower market prices any further. Therefore, he argues, granting
5 flexibility to Qwest in that market cannot provide any benefit. Yet, he also appears to argue
6 that the Commission should withhold any grant of flexibility *until* the market is effectively
7 competitive. If the latter premise is correct, then Mr. Wood can hardly object to granting
8 Qwest the flexibility it seeks merely because doing so could bring little "material
9 incremental benefit" to consumers.

10 Mr. Wood's recommendation here asks the Commission to chart an unwise and potentially
11 dangerous course in Washington's telecommunications markets. Although Qwest has been
12 losing market share ever since the local exchange markets were opened to competition,
13 tying it down by strict price regulation is not the way to encourage effective competition.
14 Rather, recognizing Qwest's importance as a source of telecommunications services to
15 consumers in the state, the Commission should take steps to ensure that barriers to entry
16 and exit remain low for competitors and new entrants, *even as* it allows competitive prices
17 to emerge through the free interaction of market demand and supply. It bears remembering
18 that pricing flexibility only means prices are permitted to track demand and supply forces.
19 Thus, prices forced to stay at levels different from those at supply and demand equilibrium
20 have several unacceptable consequences including the loss of allocative efficiency,
21 encouragement for uneconomic entry, and denying consumers ready sources of supply to
22 satisfy their needs. To recall the arguments made earlier, the Commission would better

1 serve the cause of competition in Washington by "taking care" of structural conditions and
2 then monitoring how competition develops without unduly micro-managing it, rather than
3 by intervening directly in that process to restrain the movement of prices in response to
4 changes in demand and supply. I need hardly remind anyone that Qwest's involvement in
5 the market is significant enough that any effort to unduly restrain Qwest's prices will likely
6 leave the market in a perpetual state of disequilibrium. *That* state of affairs will truly fail
7 to produce any "material incremental benefit" to consumers.

8 PLEASE EXPLAIN WHY YOU BELIEVE TO BE FALSE MR. WOOD'S CLAIM THAT
9 GRANTING PRICING FLEXIBILITY "TOO EARLY" WILL HARM CONSUMERS
10 AND COMPETITORS.

11 A. It is unclear what Mr. Wood means by "too early" in this context. If the test to be applied
12 here—as Mr. Wood appears to suggest—is that effective competition must prevail in the
13 market, then the only standard for determining that appears to be that "prices in such a
14 market are at competitive levels, and would not be reduced by the presence of an additional
15 carrier" [page 7]. This, as I have pointed out (and antitrust authorities have recognized) is
16 not always a wise standard to follow: when carriers are capable of "coordinated
17 interaction," as I believe they were in the interstate long distance market during much of
18 the 1990s, the presence of an additional carrier willing to participate in such coordination
19 cannot—indeed, will not—affect prices at "competitive" levels.[24] Again, the "effective

1 [24] Indeed, as other economists have observed, the apparent "competition" among the Big Three long distance carriers
2 was a relatively minor contributor—in comparison to access charge reductions—to the decline of retail
3 interstate long distance rates during that period. See fn. 11, *supra*. A standard and, I believe, feasible
4 argument made by Regional Bell Operating Companies ("RBOCs") seeking the authority to offer interstate

(continued...)

1 competition" test, based possibly on some measure of market concentration or market
2 presence, is neither wise nor relevant *without* a concomitant effort to remove barriers to
3 entry and exit and create other favorable structural conditions for present and future
4 competition.

5 It is also unclear why Mr. Wood fears pricing flexibility for Qwest so much, particularly
6 from the standpoint of competitors. Conventional economic wisdom has it that higher
7 prices can be harmful if consumers have no recourse or alternative sources of supply.
8 However, conventional economic wisdom does *not* see *upward* pricing flexibility to the
9 incumbent as a threat to competitors *before* the market has been monopolized. Rather,
10 competitors should be more concerned with *downward* pricing flexibility, but only when
11 that flexibility is abused in specific and identifiably anti-competitive ways, such as by
12 predatory pricing or pricing based on cross-subsidization. Thus, neither form of
13 flexibility—upward or downward—can *simultaneously* be harmful to both competitors and
14 consumers. Lower prices when set below costs may threaten competitors, but consumers
15 can hardly be worse off from those prices unless the market is re-monopolized and prices
16 are raised subsequently. The likelihood of the latter eventuality, as the history of both
17 regulated and unregulated markets shows, is virtually zero. On the other hand, higher
18 prices—particularly when not justified by costs—can cause harm to consumers, but the

(...continued)
1 long distance services under Section 271 of the Telecommunications Act of 1996 was that, in a market
2 environment of tacit collusion and umbrella pricing, *only* the presence of a competitive outsider could drive
3 significant reductions in interstate long distance rates. Taking advantage of the FCC's interpretation of federal
4 law that authority under Section 271 should not be granted until the RBOCs had created favorable market-
5 opening conditions in the local exchange, potential local exchange competitors *including* long distance
6 carriers stalled their efforts at entry for a number of years.

1 harm to competitors (who can continue to offer services at lower prices) is not at all
2 evident. Indeed, economic theory predicts that if the right structural conditions are in place,
3 higher-than-competitive prices and supranormal profits will attract additional competitive
4 entry, expand supply, and force the equilibrium market price downward. Again, this is
5 reason enough for the Commission to focus more on creating the right structural conditions
6 than on delaying unnecessarily the grant of pricing flexibility.

7 PLEASE EXPLAIN WHY YOU BELIEVE TO BE FALSE MR. WOOD'S CLAIM THAT
8 DENYING QWEST PRICING FLEXIBILITY IN AN EFFECTIVELY COMPETITIVE
9 MARKET MAY CAUSE "SOME HARM" TO QWEST BUT LEAVE COMPETITORS
10 AND CONSUMERS UNAFFECTED.

11 A. The danger in Mr. Wood's prescription here is that it assumes that any loss of social
12 welfare that results from it would only be Qwest's to bear. If the market is already
13 effectively competitive, then it must mean that market prices signal (as faithfully and
14 speedily as possible) all shifts in demand and supply although any *individual* firm or
15 consumer may not experience any such change. When market demand and supply
16 conditions change in an effectively competitive market, *every* individual firm must have
17 the capacity to adjust the prices it charges to the levels that prevail in the new equilibrium.
18 Failure to do so would, as Mr. Wood correctly predicts, leave the recalcitrant (or artificially
19 restrained) firm unable or unwilling to deploy resources or provide service at the efficient
20 levels warranted by market conditions.

21 Consider what could happen if, say, demand for a particular business-related service were

1 to drop, perhaps because of a recession or the emergence of a technological alternative.
2 The drop in market demand would likely force the equilibrium market price down. Firms
3 allowed to price that service flexibly (and act as price-takers in an effectively competitive
4 market) would adjust by matching their offer prices to the lower equilibrium market price
5 and trying to supply as much of the service as possible at the new price. If one such firm,
6 e.g. Qwest, were unable to price its service lower in this manner, it would likely lose
7 customers and the revenues associated with them. In extreme situations, the customer loss
8 could even be permanent, particularly for a competitive undifferentiated service. Qwest's
9 "excess supply" in these circumstances could mean stranded resources and service costs not
10 recouped through the normal market process.[25] As Mr. Wood concedes but displays little
11 obvious concern for, there would then be financial harm to Qwest. But the lack of that
12 flexibility to Qwest could also sow the seeds for dangerous umbrella pricing by the
13 unregulated competitors that need not fear any economic counter-measures from Qwest.
14 Even in markets with a competitive fringe of alternative suppliers, any single firm could
15 lead by opting for a price above the equilibrium level, but just below the price Qwest is
16 allowed to charge. Perceiving that individual and joint profits of the entire competitive

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1 [25] A corresponding and symmetric form of harm would arise if Qwest were denied upward pricing flexibility and a
2 sudden jump in demand were to materialize.

1 fringe could be maximized by following the lead of the single maverick firm, the remaining
2 firms would be free to engage in a form of umbrella pricing that artificially sustains the
3 market price above the equilibrium level, and there would be little the Commission could
4 do to prevent it. Rather than engage in "destructive" competition among themselves, the
5 competitive fringe would have a strong incentive—in the absence of Qwest's "big
6 stick"—to engage in opportunistic pricing from which consumers could truly not benefit.
7 What this means is that even in so-called "effectively competitive" markets, the removal
8 (for all practical purposes) of a single competitor (particularly one with Qwest's market
9 presence) could induce the remaining firms to act not as price-takers, but rather as price and
10 market-makers. The losses of social welfare in that situation could extend well beyond
11 "some harm" to Qwest. This is exactly the situation envisioned by antitrust authorities in
12 the context of "coordinated interaction." The lesson is obvious: Qwest is needed to police
13 the pricing actions of the competitors and new entrants, just as much as the latter are needed
14 to police Qwest's pricing. Creating the right structural conditions and allowing *all* firms
15 pricing flexibility in response to changes in market conditions is the best course of action
16 for the Commission, indeed those well within its reach.

17 MR. WOOD ALLEGES [AT PAGE 17] THAT THE PRESENCE OF RESELLERS IN THE
18 NINE EXCHANGES DOES NOT MEAN THAT CONSUMERS OF RETAIL SERVICES
19 HAVE ADEQUATE PRICE PROTECTIONS. DO YOU AGREE?

20 A. No. I agree with Mr. Wood that lasting price protections and other benefits would come
21 to consumers as more competitors become facilities-based and/or use facilities and

1 platforms leased from Qwest. However, I disagree that resale affords no protection
2 whatsoever. The form of resale that applies to basic exchange services (under Sections 251
3 and 252 of the Telecommunications Act of 1996) essentially allows the reseller to
4 substitute its own retailing functions for those of Qwest. The underlying wholesale
5 functionality of the service remains unchanged. The significance of this is often
6 overlooked. Mr. Wood may be correct to say that resale cannot be a form of price-
7 constraining competition because, when Qwest raises its retail price of the business service,
8 the reseller is obliged to accept and charge that higher price as well (adjusted for the
9 difference between their retailing costs). However, Qwest cannot possibly raise its retail
10 prices without any limit. At some point, competitors are likely to find it cheaper to provide
11 the same service either using leased facilities and platforms or even using self-supplied
12 facilities. In other words, at some point, the *other* forms of competition become viable and
13 an effective constraint on retail price escalations for resold services.[26] The key to this, as
14 Dr. Blackmon correctly points out [at pages 13 to 14] is that Qwest's unbundled facilities
15 and platforms will remain regulated even if pricing flexibility is granted for retail services.
16 Therefore, competitors will always be able to get the wholesale functionalities they need
17 at regulated cost-based prices and keep their own retail prices competitive.

18 Q. ARE RESELLERS PARTICULARLY VULNERABLE TO PRICE SQUEEZE AND
19 EVENTUAL ELIMINATION IF PRICING FLEXIBILITY IS GRANTED TO

1 [26] Resale is often thought of as a low-cost form of market entry and a means to build up a critical mass of customers
2 before launching facilities-based service. However, there can come a point when, from a pragmatic and
3 strategic standpoint, an entrant may find it more profitable to enter with partial or full facilities than through
4 resale.

1 **RESELLERS, AS MR. WOOD CLAIMS AT [PAGES 34 TO 35]?**

2 A. No. What Mr. Wood describes as a price squeeze is really not that at all. It is true that
3 upward pricing flexibility for a retail business service could theoretically allow Qwest to
4 raise its price. In the process, the wholesale cost to the reseller, i.e., the retail price less the
5 wholesale discount, could rise to the reseller as well. However, there is no question of a
6 price squeeze here; both Qwest and the reseller will be selling the service at a higher rate
7 (higher to the same degree for both). While the increase in the *absolute* level of the retail
8 price may mean some suppression of consumer demand, that has absolutely *nothing* to do
9 with a price squeeze which is a strategy designed to subvert competitors.

10 Consider what truly constitutes a price squeeze. Suppose the incumbent carrier (say,
11 Qwest) both provides an essential wholesale service and competes for a downstream retail
12 service for which that essential wholesale service is an input. A price squeeze consists of
13 *simultaneously* selling the wholesale service to its retail competitors at a price higher than
14 that the carrier charges itself and selling the retail service to its end-user customers at a
15 lower price than what its competitors can charge. In this scenario, the absolute level of the
16 retail price does not matter. Instead, all that matters is whether the margin between the
17 retail price charged by the incumbent carrier and the wholesale price that it imputes to itself
18 is sufficient to equal or exceed the incremental cost of the carrier to provide the retailing
19 functions. If that condition is satisfied, no price squeeze can occur.[27]

1 [27] To show this another way, assume P_R and P_W are the incumbent carrier's price for the retail service and the price it
2 charges competitors for the wholesale service, respectively. Also, assume C_R and C_W are the incremental
3 costs, respectively, to provide the retail service and its wholesale counterpart. Then, under Section 252 of
4 the Telecommunications Act of 1996, the reseller's price to acquire the wholesale service is:

(continued...)

1 **BUT, DOESN'T THE FACT THAT THE INCUMBENT CARRIER IS ABLE TO GET THE**
2 **WHOLESALE SERVICE FOR ITS OWN USE "AT (INCREMENTAL) COST"**
3 **WHEREAS IT CHARGES A HIGHER PRICE TO ITS RESALE-BASED**
4 **COMPETITOR FOR THE SAME WHOLESALE SERVICE PROVE THAT A PRICE**
5 **SQUEEZE OF THE RESELLER IS POSSIBLE?**

6 A. No. The sort of reasoning implied by the question is based on a faulty understanding of
7 economic opportunity costs. First, when the incumbent carrier sells the retail service itself,
8 it earns the price of that service as revenue for every unit it sells. The profit margin from
9 each unit of sales is that price less the incremental cost to provide the retail service. That
10 is, the profit margin is $P_R - C_R$ (in the notation introduced above). Alternatively, if the
11 reseller sells a unit of the retail service, the incumbent only earns the price at which it sells
12 the wholesale service to the reseller. In that instance, it incurs only the incremental cost of
13 the wholesale service, and the profit margin (in the notation introduced above) is $P_W - C_W$.
14 It can be verified quite easily, either from the expression for the imputation rule or the
15 pricing rule for resale of a retail service, that these two profit margins are identical. That

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(...continued)

1 $$P_W \geq P_R - (C_R - C_W)$$

2 where the term $C_R - C_W$ represents the incremental cost of retailing functions avoided by the reseller when
3 it, rather than the incumbent carrier, provides those functions. From the same equation, it can be seen that
4 the margin between the incumbent's own retail price and the price it charges the reseller, namely, $P_R - P_W$,
5 must be no less than the incremental cost of the retailing functions alone. That this rules out price squeeze
6 can also be seen from the alternative but equivalent formulation of the same equation:

7 $$P_R \geq C_R + (P_W - C_W)$$

8 which is simply the imputation condition for pricing a competitive retail service when the incumbent carrier
9 is the sole supplier of the essential wholesale service.

1 implies that the incumbent carrier is left financially indifferent between either providing the
2 retail service itself or selling the wholesale service to the reseller. In turn, that implies that
3 there is no *incentive* for the incumbent carrier to either shift all sales to the reseller or to
4 eliminate the reseller and monopolize the retail service.

5 Second, when the incumbent carrier itself sells a unit of the retail service, that is equivalent
6 to forgoing the opportunity to sell a unit of the wholesale service to the reseller. Thus, the
7 manager at the incumbent carrier responsible for optimizing corporate profits has to
8 recognize the price of the wholesale service as a *cost* to the carrier whenever it, rather than
9 the reseller, provides the retail service. That is because the wholesale service price that
10 would have gone into the incumbent carrier's corporate pocket no longer does so when the
11 incumbent provides the retail service in place of the reseller. Therefore, what at first
12 appears as net revenue to the incumbent carrier turns out, on closer scrutiny, to really be a
13 cost. Economists characterize such costs as opportunity costs. Failure to account for such
14 costs can lead directly to the type of flawed reasoning described above.

15 MR. WOOD ALLEGES [AT PAGE 36] THAT, UPON BEING GRANTED PRICING
16 FLEXIBILITY, QWEST CAN DETER POTENTIAL ENTRANTS FROM DEPLOYING
17 THEIR OWN FACILITIES BY PRE-EMPTIVELY "LOCKING UP" CUSTOMERS
18 USING INFORMATION ABOUT THE PLANS AND FACILITIES NEEDS OF THOSE
19 ENTRANTS. SHOULD THE COMMISSION BE CONCERNED ABOUT THIS
20 POSSIBILITY?

21 A. No. Mr. Wood's surmise rests on the sole prospect that, as the supplier of essential

1 wholesale services and unbundled facilities and platforms, Qwest may be in a position to
2 feed information about entrants' needs to the retail side of its operations, thereby allowing
3 its retail operations to reach and "lock up" customers before the entrants can get to them.
4 In other words, the very threat of preemption, based on the assumed sharing of information
5 between Qwest's retail and wholesale operations, could raise entrants' risks and sunk costs
6 to the point that entry would become impossible. This allegation, however, is spurious
7 because, as Qwest witness Theresa Jensen explains in her Rebuttal Testimony, a *de facto*
8 separation of retail and wholesale operations exists and there is no sharing of information
9 between the two.

10 Q. COULD QWEST "USE ITS NEW FLEXIBILITIES TO MANAGE ENTRY," AS DR.
11 GOODFRIEND CLAIMS [AT PAGE 49]?

12 A. I doubt it. Dr. Goodfriend's point is that Qwest conducts market research on its actual and
13 potential entrants and, armed with pricing flexibility, could deter entry where it is most
14 likely (presumably by "pricing down" to customers that entrants would likely serve) and
15 charge higher prices where it is less likely (presumably fearing no competitive pressure for
16 those customers from entrants). This point is neither true nor a matter of concern.
17 Competition does not mean a single uniform price to all consumers all the time. Even
18 when the underlying wholesale functionality is undifferentiated, i.e. the same from all
19 providers, the retail service may appear differentiated because of the efforts of service
20 providers to distinguish their retail service from those of others. This frequently takes the
21 form of special contracts, volume discounts, multi-part pricing, or other forms of price

1 discrimination. In competitive markets, such price discrimination actually improves
2 economic efficiency by bringing services to consumers at prices closest to what they are
3 willing and able to pay and reducing both buyer and seller risk. The competitive markets
4 for long distance and wireless service are replete with examples of such pricing. In their
5 wisdom, the authors of RCW 80.36.170 and RCW 80.36.180 did *not* extend the
6 prohibitions against "undue preferences and discrimination" to services classified as
7 competitive under RCW 80.36.330. While Dr. Goodfriend [at fn. 38] expresses concern
8 at this, I urge the Commission to recognize these efficiency-enhancing forms of non-
9 uniform pricing as a regular and laudable feature of competitive markets, and not as a
10 matter for concern.[28]

V. CONCLUSIONS

1 **WHAT ARE YOUR OVERALL CONCLUSIONS?**

2 A. The Commission has the responsibility to ensure that competition occurs in Washington's
3 telecommunications markets. To that end, and within the framework of federal and state
4 laws, the Commission must consider what set of policy instruments is likely to prove
5 effective and social welfare-enhancing for competition to take hold. However, it is not
6 enough to merely select a few such instruments; for their successful implementation, it is
7 also necessary to ensure that the right structural conditions exist in the marketplace.

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1 [28] The myth that competition necessarily entails uniform pricing to all customers, regardless of differences among those
2 customers, is also discernible in Dr. Goodfriend's observation [at page 51] that "[I]f Qwest believes that a
3 price increase would be unprofitable in Seattle Main because of entry, it may believe that the same price
4 increase in Waverly 7 would attract no, or insufficient entry."

1 The purpose of this proceeding is to determine whether the grant of pricing flexibility to
2 the regulated incumbent carrier Qwest is likely to be an effective policy instrument for
3 giving competition for selected business exchange services in 31 wire centers in
4 Washington a much-needed boost. Qwest has asked for such flexibility in light of its belief
5 that the structural conditions permitting effective competition already exist in the 31 wire
6 centers. The Commission must first determine whether those structural conditions indeed
7 exist, and then ascertain whether pricing flexibility for Qwest is warranted. For this, the
8 Commission need only determine whether barriers to entry and exit have been lowered or
9 eliminated, actual and potential competitors have made their presence known in the
10 relevant market, and competition once initiated can survive and grow with the added
11 impetus provided by Qwest's ability to price its competitive services flexibly. Making
12 these determinations is not easy, but the Commission must not be swayed by allegations
13 and vague hypotheticals about how Qwest's sole purpose is to secure pricing flexibility as
14 a tool for further undermining and subverting the competition. Rather, the Commission
15 must see the efficiency-enhancing effects of such flexibility and accept that the process of
16 competition, as erratic and unpredictable as it may sometimes seem, must be trusted to
17 chart its own path through the early noise and confusion of markets opened to new entrants
18 and new ideas. Micro-managing competition is not only undesirable, it is also impossible.
19 This proceeding must not end with the Commission upholding the status quo, an outcome
20 that certain parties would evidently welcome.

21 I am encouraged by the generally balanced approach to these tasks by Staff witness Dr.
22 Blackmon. While I do not necessarily agree with him on all points, I believe many of his

1 recommendations have merit and should be given serious consideration. Above all, the
2 Commission has the task of balancing the economic interests of three distinct groups:
3 Qwest (the incumbent carrier), Qwest's competitors and new entrants, and customers in the
4 state. As I have explained in my testimony, that task is not easy because what may be in
5 the interests of one group may seemingly conflict with the interests of another. However,
6 just as the Commission does not have the duty to preserve Qwest or its competitors at any
7 cost, it also cannot forever shield consumers and serve as competition's surrogate in the
8 state. When markets operate freely, buyers and sellers alike become more accustomed to
9 following market signals and trusting them or not depending on their own perceptions of
10 those signals. Keeping the hands of a major market participant tied in this process may
11 serve the short run interests of those that are not so restrained, but economic efficiency and
12 social welfare cannot be enhanced in that way.

13 **WHAT IS YOUR RECOMMENDATION TO THE COMMISSION?**

14 A. As I remarked to begin my testimony, I would recommend that the Commission find that
15 the structural conditions exist in the 31 wire centers for granting pricing flexibility for
16 Qwest's specified business services. The Commission is not obliged to make that grant of
17 flexibility conditional on competitive conditions becoming uniformly the same in each of
18 the 31 wire centers. Nor does it have to wait until all customers within a wire center have
19 competitive alternatives available to the same degree. If it determines that the right
20 structural conditions exist for the emergence of viable and effective competition, then it
21 must grant the pricing flexibility and competitive classification being sought by Qwest.

1 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

2 A. Yes.