

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF FLORIDA

In re: Amended Complaint of Qwest Communications Company, LLC against MCImetro Access Transmission Services (d/b/a Verizon Access Transmission Services); XO Communications Services, Inc.; tw telecom of florida, l.p.; Granite Telecommunications, LLC; Broadwing Communications, LLC; Access Point, Inc.; Birch Communications, Inc.; Budget Prepay, Inc.; Bullseye Telecom, Inc.; DeltaCom, Inc.; Ernest Communications, Inc.; Flatel, Inc.; Lightyear Network Solutions, LLC; Navigator Telecommunications, LLC; PaeTec Communications, Inc.; STS Telecom, LLC; US LEC of Florida, LLC; Windstream Nuvox, Inc.; and John Does 1 through 50, for unlawful discrimination.

DOCKET NO. 090538-TP

REDACTED

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DIRECT TESTIMONY OF DENNIS L. WEISMAN

ON BEHALF OF

QWEST COMMUNICATIONS COMPANY, LLC

Filed: June 14, 2012

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REGISTRY OF PUBLIC UTILITIES

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FPSC-CONSUMER SERVICE

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I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION.

A. My name is Dennis L. Weisman. I am employed by Kansas State University as a Professor of Economics. My business address is Department of Economics, Waters Hall, Kansas State University, Manhattan, Kansas 66506-4001.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I received a B.A. in economics and mathematics from the University of Colorado; an M.A. in economics from the University of Colorado; and a Ph.D. in economics from the University of Florida with a specialization in industrial organization and economic regulation. I have testified in numerous regulatory proceedings to the economic and social impacts of regulatory policies and have served as an advisor to telecommunications firms, electric power companies and regulatory commissions on economic pricing principles, the design of incentive regulation plans and competition policies. My primary research interests are in strategic behavior and government regulation. I have authored or co-authored more than 100 articles, books and book chapters. My research has appeared in the *Antitrust Bulletin*, *Economics Letters*, the *Journal of Regulatory Economics*, the *Yale Journal on Regulation*, the *Journal of Policy Analysis and Management*, and the *Federal Communications Law Journal*. My research has also been cited by the U.S. Supreme Court in *Verizon v. FCC*,¹ both majority and dissenting opinions. I am the co-author of **DESIGNING INCENTIVE REGULATION FOR THE**

¹ *Verizon Communications Inc. v. FCC*, 535 U.S. 467 (2002).

1 TELECOMMUNICATIONS INDUSTRY, published by the MIT Press and the AEI
2 Press in 1996, and THE TELECOMMUNICATIONS ACT OF 1996: THE "COSTS" OF
3 MANAGED COMPETITION, published by Kluwer in 2000. I am also the author of
4 PRINCIPLES OF REGULATION AND COMPETITION POLICY FOR THE
5 TELECOMMUNICATIONS INDUSTRY - A GUIDE FOR POLICYMAKERS,
6 published by The Center for Applied Economics at the University of Kansas School of
7 Business in 2006. I currently serve as an editor for the *Review of Network Economic*
8 and on the editorial boards of the *Journal of Regulatory Economics* and *Information*
9 *Economics and Policy*. Finally, I am a member of the Board of Academic Advisors for
10 The Free State Foundation – a Washington D.C. "think tank" that champions free-market
11 principles in telecommunications and other high-technology industries.

12 A complete description of my academic and professional background is provided in my
13 curriculum vitae in Exhibit DLW 1.

14 **Q. HAVE YOU TESTIFIED BEFORE STATE REGULATORY COMMISSIONS?**

15 **A.** Yes. I have presented testimony before commissions in Arkansas, California, Colorado,
16 Kansas, Missouri, Oklahoma and Texas. I have also submitted testimony or filed
17 affidavits with the Federal Communications Commission, the Canadian Radio-Television
18 and Telecommunications Commission, the Alberta Utilities Commission, the Kansas
19 State Legislature and the United States Court of Appeals for the District of Columbia. As
20 relevant to this proceeding, I testified before the Colorado Public Utilities Commission in
21 Docket No. 08F-259T, QCC's parallel complaint proceeding.

1 **II. PURPOSE, THEMES AND ORGANIZATION OF TESTIMONY**

2 **Q. WHAT ISSUE IDENTIFIED IN THE ORDER ESTABLISHING PROCEDURE**
3 **(ORDER NO. PSC-12-0048-PCO-TP) DOES YOUR TESTIMONY ADDRESS?**

4 **A.** My testimony primarily addresses (in tandem with the testimony of William R. Easton
5 and Derek Canfield) Issue No. 5 on the Tentative List of Issues – “Has the CLEC
6 engaged in unreasonable rate discrimination, as alleged in Qwest’s First Claim for Relief,
7 with regard to its provision of intrastate switched access?”

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

9 **A.** The primary purpose of my testimony is to demonstrate the potential economic
10 distortions resulting from discriminatory pricing of (essential) switched access services in
11 the state of Florida. A secondary purpose of my testimony is to explain why, in the
12 absence of a credible basis for differential pricing, the default price for switched access
13 services should be a uniform price. In other words, as a general rule, all long-distance
14 carriers should pay the same price for switched access services unless the provider’s cost
15 of providing the service varies between customers.

16 **Q. PLEASE PROVIDE AN OVERVIEW OF THE KEY THEMES DEVELOPED IN**
17 **YOUR TESTIMONY.**

18 **A.** First, economic regulation serves as surrogate for market forces when competition for
19 essential services is infeasible or otherwise non-existent.^{2, 3} Second, it is important to

² Professor Alfred Kahn observes that “the single most widely accepted rule for the 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.” Alfred E. Kahn, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS*, Vol. I, New York: John Wiley and Sons, 1970, p. 17.

³ Professor James Bonbright observes that “Regulation, then, as I conceive it, is indeed a substitute for competition; and it is even a partly imitative substitute.” James C. Bonbright, *PRINCIPLES OF PUBLIC UTILITY RATES*, New York: Columbia University Press, 1961, p. 107.

1 distinguish between differential pricing and discriminatory pricing.⁴ Third, because
2 switched access is an essential input to the production of downstream, long-distance
3 services and is not competitively supplied, economic regulation should serve as a
4 substitute for such market forces. Fourth, in the absence of a credible basis for
5 differential pricing of switched access, the Commission should enforce a uniform price
6 for switched access charged to all long-distance carriers. Fifth, the respondents in this
7 case have not yet advanced any credible basis for engaging in differential pricing of
8 switched access services. Sixth, the fact that these “off-list” pricing agreements were
9 kept secret can undermine competition by precluding an equal opportunity for long-
10 distance carriers to compete.

11 **III. DIFFERENTIAL PRICING VS. DISCRIMINATORY PRICING**

12 **Q. DO YOU USE THE TERMS “DIFFERENTIAL PRICING” AND**
13 **“DISCRIMINATORY PRICING” INTERCHANGEABLY?**

14 **A.** No.

15 **Q. CAN YOU DESCRIBE THE DISTINCTION BETWEEN DIFFERENTIAL**
16 **PRICING AND DISCRIMINATORY PRICING?**

17 **A.** Yes. The term “differential pricing” generally refers to any deviation from a uniform
18 price. For example, this would occur when one long-distance carrier is charged one price
19 for switched access, while another long-distance carrier is charged a different price. The
20 term “discriminatory pricing” or price discrimination (as it is commonly used in the
21 economics literature) refers to price differences that cannot be explained by cost

⁴ *Id.*, p. 371 (“At times, the cases suggest a distinction similar to that drawn by economists, in deeming ‘discriminatory’ any rate differential not based on a cost differential.”).

1 differences.⁵ This would occur, for example, if long-distance carriers were charged
2 different rates when the costs of serving them are the same, or charged the same rate
3 when the costs of serving them are different. Hence, discriminatory pricing is a subset of
4 differential pricing.⁶

5 **IV. ECONOMIC DISTORTIONS AND INPUT PRICE DISCRIMINATION**

6 **Q. HAS THE FEDERAL COMMUNICATIONS COMMISSION (FCC)**
7 **DETERMINED THAT CLEC-PROVIDED SWITCHED ACCESS IS NOT A**
8 **COMPETITIVE SERVICE?**

9 **A.** Yes. The FCC has determined that switched access is a bottleneck service that is not
10 competitively supplied.⁷ For example, when it established the regulatory regime to set
11 the carrier access rates for competitive local exchange carriers (CLECs), the FCC
12 observed:

13 Sprint and AT&T persuasively characterize both the terminating and the
14 originating access markets as consisting of a series of bottleneck
15 monopolies over access to each individual end user. Thus, once an end
16 user decides to take service from a particular LEC, that LEC controls an
17 essential component of the system that provides interexchange calls, and it

⁵ See, for example, George J. Stigler, *THE THEORY OF PRICE*, New York: Macmillan Publishing, 1966, p. 209. (Here, price discrimination is defined as “the sale of two or more similar goods at prices which are in different ratios to marginal cost.”)

⁶ The regulation and economics literature are not always consistent in their usage of these terms. For example, the regulation literature sometimes refers to any departure from uniform pricing as discriminatory pricing. See, for example, Bonbright *supra* note 3, chapter XIX.

⁷ *In the matter of Access Charge Reform; Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, *SEVENTH REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING* (April 27, 2001), at ¶ 30. See also ¶¶ 28-29, 31-34.

1 becomes the bottleneck for IXCs wishing to complete calls to, or carry
2 calls from, that end user.⁸ (footnote omitted).

3 The significance of this fact in this particular context is that all providers of switched
4 long-distance services require switched access as an input to production and have no
5 economically viable alternative to purchasing these inputs from the LECs, be they
6 incumbent LECs or competitive LECs.⁹

7 **Q. HAS THE FCC HAD THE OPPORTUNITY MORE RECENTLY TO REAFFIRM**
8 **ITS POSITION THAT SWITCHED ACCESS CONSTITUTES A BOTTLENECK**
9 **INPUT?**

10 **A.** Yes. In a recent *Amicus Brief*, the FCC reaffirmed its previous findings in observing that
11 CLECs have the ability in the market for switched access services to impose “excessive
12 access charges on IXCs.”

13 This anticompetitive practice was possible because the market for these
14 services did not allow competition to discipline rates and CLECs thus
15 enjoyed a monopoly over access charges: in order to originate and
16 terminate long distance traffic, the IXC has no choice but to use the local
17 network of the LEC serving the end-user customer.¹⁰

⁸ Seventh Report and Order and Further Notice of Proposed Rulemaking, *Access Charge Reform, Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, FCC 01-146 (rel. April 27, 2001) at ¶ 30.

⁹ See, for example, Jonathan E. Nuechterlein and Philip J. Weiser, *DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE*, Cambridge MA: The MIT Press, 2005, Chapters 2 and 9.

¹⁰ Brief for Amicus Curiae Federal Communications Commission. In the United States Court of Appeals for the Third Circuit. Nos. 11-2268 (consolidated with 11-2568) & 11-1204 (consolidated with 11-2569) *PAETEC Communications, Inc., et al., v. MCI Communications Services, Inc. D/B/A Verizon Business Services; Verizon Global Networks Inc.* Case: 11-2268, Filed 3/14/2012, page 6.

1 The FCC further observed that the unique leverage that the CLECs enjoy in the market
2 for switched access services may allow the CLECs to “distort the long distance
3 market.”¹¹

4 **Q. DOES THE “BOTTLENECK” NATURE OF SWITCH ACCESS DEPEND ON**
5 **WHETHER THE PROVIDER OF SWITCHED ACCESS IS AN INCUMBENT**
6 **LEC OR A COMPETITIVE LEC?**

7 A. No. In fact, the above quotation from the FCC order is explicitly concerned with CLECs
8 rather than ILECs. The “bottleneck” characteristic of switched access derives from the
9 end-user’s decision to subscribe to a particular local service provider. The absence of a
10 competitive choice for the long-distance carrier is not a function of whether that local
11 service provider is an ILEC or a CLEC, nor is it a function of the size of the LEC.

12 **Q. IN YOUR VIEW, DOES THE COMMISSION HAVE A PROSPECTIVE ROLE IN**
13 **CURTAILING DISCRIMINATORY PRICING OF SWITCHED ACCESS UNDER**
14 **THE RECENTLY PASSED FLORIDA DEREGULATION STATUTE?**

15 A. Yes. Competition, fueled by new technologies and accommodating legislation, has
16 thoroughly transformed the telecommunication marketplace in North America over the
17 last decade and this has resulted in a *paradigmatic shift* in regulatory policy.¹² The

¹¹ Id.

¹² As Thomas Kuhn observed in his classic treatise:

Political revolutions are inaugurated by a growing sense, often restricted to a segment of the political community, that existing institutions have ceased adequately to meet the problems posed by an environment that they have in part created. . . . Their success therefore necessitates the relinquishment of one set of institutions in favor of another . . .

Thomas Kuhn, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS*, Chicago: University of Chicago Press, 1962, pp. 92-93.

1 Florida Legislature voted last year, wisely in my view,¹³ to reverse long-standing public
2 policy as it relates to the interplay between regulation and competition in Florida's
3 telecommunications markets. In essence, a default reliance on competition to provide the
4 requisite market discipline has replaced a default reliance on economic regulation to
5 provide the requisite market discipline. What this means is that telecommunications
6 markets in Florida are now presumptively competitive with no need for regulatory
7 oversight rather than presumptively non-competitive with need for regulatory oversight.
8 These observations notwithstanding, the fact that economic regulation is now the
9 exception rather than the rule does not imply that regulation is unwarranted in all cases
10 and this is especially true when the failure to exercise the requisite regulatory oversight
11 can lead to economic distortions and anticompetitive outcomes. For all of the reasons
12 discussed herein, regulatory oversight to ensure non-discriminatory pricing of switched
13 access is just such an exception.

14 **Q. IS IT SIGNIFICANT THAT SWITCHED ACCESS IS NOT COMPETITIVELY**
15 **PROVISIONED?**

16 A. Yes. It is accepted doctrine that sound competition (regulatory) policy should serve to
17 protect the integrity of the competitive process rather than serve to favor or disfavor
18 individual competitors. In order for competition in downstream markets (in the present
19 case, the long-distance market that uses switched access as a critical input) to be
20 economic in the sense that it promotes competition on the merits,¹⁴ all similarly situated,

¹³ Glen O. Robinson and Dennis L. Weisman, "Designing Competition Policy for Telecommunications." *The Review of Network Economics*, Vol. 7(4), December 2008, pp. 509-546.

¹⁴ The term "competition on the merits" refers to the basic idea that the returns that a firm enjoys should reflect its superior efficiency and business acumen in the marketplace *vis-à-vis* its relatively less proficient rivals. In *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945), Judge Learned Hand observed that "A single

1 downstream competitors must have access to upstream inputs under comparable terms
2 and conditions. This is the well-known principle of competitive parity.

3 We have in various forums expounded what we have referred to as the
4 principles of competitive parity in cases of bottleneck monopoly, the
5 purpose and effect of which are to ensure that the competition between the
6 controller of the bottleneck facility—or supplier of the essential input—
7 and its actual and potential rivals is efficient. That is to say, rules framed
8 in accordance with those principles should produce a distribution of
9 responsibility for performing the contested function among the several
10 rivals on the basis of their respective costs and so minimize the total cost
11 of supplying the contested service (footnote omitted).¹⁵

12 **Q. CAN ECONOMIC DISTORTIONS AND ANTICOMPETITIVE OUTCOMES**
13 **RESULT IF THESE PARITY PRINCIPLES ARE VIOLATED?**

14 **A.** Yes. Should these parity principles be violated, competitors that are less efficient in
15 producing the downstream components of the service may be unduly favored in a manner
16 that violates competitive neutrality. Discriminatory pricing that affords selected long-
17 distance carriers discounts for switched access could sacrifice productive efficiency.¹⁶

producer may be the survivor out of a group of active competitors, merely by virtue of his superior skill, foresight and industry.” For a more recent discussion of the term “competition on the merits” and its role in differentiating between competitive and exclusionary behavior in antitrust enforcement, see Antitrust Modernization Commission, Report and Recommendations, Washington D.C. 2007.

¹⁵ Alfred E. Kahn and William E. Taylor, “The Pricing of Inputs Sold to Competitors: A Comment,” *Yale Journal on Regulation*, Volume 11, 1994, p. 227.

¹⁶ Productive (technical) efficiency is concerned with production at the lowest possible cost. A firm is technically efficient if it (i) uses the minimum possible amount of inputs to produce its output; or, equivalently, (ii) produces the maximum possible amount of output from any given quantity of inputs.

1 This is the case because such practices can serve to preclude the least-cost ("most
2 efficient") provider from being the least-price provider. Price discrimination for
3 intermediate goods (inputs) is likely to be particularly pernicious in this regard due to the
4 risk of efficiency distortions in the downstream market.

5 This potential for efficiency distortions explains why sound regulatory principles require
6 that bottleneck inputs, switched access, for example, be priced uniformly to all similarly-
7 situated purchasers of these inputs. That is to say, the default pricing of switched access
8 requires that a uniform price be levied on each provider absent a factual and credible
9 basis for departing from this uniform pricing standard.

10 **Q. CAN YOU PROVIDE A STYLIZED NUMERICAL EXAMPLE OF HOW THE**
11 **LEAST-COST PROVIDER CAN BE HAMPERED IN THE MARKETPLACE?**

12 **A.** Yes. Assume that the production of each minute of long-distance telephone service
13 requires one unit each of switched access, intercity transmission and retailing, the latter
14 two inputs being self-supplied by the long-distance carrier. Suppose there are two
15 similarly situated long-distance carriers, Carrier A and Carrier B, with per-unit costs of
16 intercity transmission of 3 cents and 4 cents, respectively. In addition, both carriers incur
17 costs of one cent per-minute for retailing. Carrier A pays the price-list rate for switched
18 access of 4 cents per minute while Carrier B is granted a discount on switched access and
19 hence pays only 1 cent per minute. The incremental cost per long-distance minute is thus
20 8 cents for Carrier A and 6 cents for Carrier B. These values are shown in Table 1 below.
21 The potential distortionary effect arises from the fact that Carrier B can set a price
22 between 6 cents and 8 cents per minute and yet still (profitably) under-price Carrier A in
23 the market even though Carrier A is the more efficient provider of long-distance

1 telephone service (i.e., Carrier A has a lower unit cost of provisioning intercity
2 transmission). The economic harm to Carrier A from discriminatory pricing of switched
3 access derives from the appropriation of its “margin on the merits.” To see this, observe
4 that Carrier A should realize a cost advantage over Carrier B of 1 cent per minute,
5 reflecting its superior efficiency in self-supplying intercity transmission (i.e., $4\phi - 3\phi$).
6 The discriminatory pricing of switched access, however, confers an artificial cost
7 advantage on Carrier B over Carrier A of 2 cents per minute (i.e., $8\phi - 6\phi$).
8 It is in this sense that discrimination in the pricing of switched access services can lead to
9 an economic distortion because it precludes the least-cost provider from serving as the
10 least-price provider.

11 **TABLE 1**

12 **Incremental Cost for Long-Distance Service**

	<i>CARRIER A</i>	<i>CARRIER B</i>
SWITCHED ACCESS	4¢	1¢
INTERCITY TRANSMISSION	3¢	4¢
RETAILING	1¢	1¢
TOTAL	8¢	6¢

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19 **Q. ARE THESE DISCRIMINATORY DISCOUNTS PROBLEMATIC EVEN WHEN**
20 **THE CARRIERS ARE EQUALLY EFFICIENT?**

21 **A.** Yes. As a matter of sound regulatory/competition policy, the pricing of a bottleneck
22 input should not work at cross-purposes with competition on the merits. In this particular
23 context, this means that the differential pricing of switched access should not provide one
24

1 or more carriers with an artificial cost advantage.¹⁷ This is precisely why regulatory rules
2 are structured so that all similarly situated carriers pay a uniform price for critical,
3 bottleneck inputs.

4 **Q. YOU STATED EARLIER THAT YOU TESTIFIED IN QCC'S PARALLEL**
5 **COLORADO PUC COMPLAINT CASE. DID THE COLORADO COMMISSION**
6 **MAKE ANY FINDINGS REGARDING THE BOTTLENECK NATURE OF**
7 **SWITCHED ACCESS?**

8 **A.** Yes. After considering QCC's testimony and briefing, as well as that of the respondent
9 CLECs, the Colorado Commission agreed with QCC that switched access is a bottleneck
10 service.¹⁸ At paragraph 73 of its 2011 Order Addressing Exceptions and Motion to
11 Reopen the Record, the Colorado PUC held as follows.

12 73. We also agree with the ALJ that LEC facilities are a monopoly
13 bottleneck since there are no alternatives for an IXC to reach a given end
14 user customer for a long distance call but through the switch of the LEC
15 that provides the local service to that end user. Indeed, as the ALJ and Dr.
16 Weisman pointed out, the Federal Communications Commission (FCC)
17 previously found and determined that switched access is a bottleneck
18 monopoly service that is not competitively supplied. This is because, once
19 a given end user decides to take service from a particular LEC, that LEC
20 controls an essential component of the system that provides interexchange
21 calls and it becomes the bottleneck for IXCs wishing to complete calls to, or

¹⁷ Note that when the two carriers are equally efficient, the artificial cost advantage conferred upon the "preferred carrier" (Carrier B) is precisely equal to the switched access discount of 3¢ per minute.

¹⁸ *QCC v. MCImetro, et al*, Docket No. 08F-259T, Decision No. C11-1216 (mailed Nov. 15, 2011) at ¶¶57-61, 72-73.

1 carry calls from, that end user. [footnote omitted] We also agree with Dr.
2 Weisman that the FCC has not subsequently overturned or modified its
3 2001 order finding switched access is a bottleneck monopoly service. * * *

4 **Q. DO THE RESPONDENT CLECS IN THIS PROCEEDING DENY THAT**
5 **INTRASTATE SWITCHED ACCESS IS A BOTTLENECK SERVICE?**

6 **A.** The position of the Respondent CLECs is not altogether clear at this juncture, but at least
7 some of them appear to deny that switched access is a bottleneck service. For example,
8 in discovery QCC sought the CLECs' position on whether an IXC has the ability to
9 choose which local exchange carrier will provide its originating and terminating intrastate
10 switched access. A number of CLECs take the position that IXCs do have that ability.
11 For instance, Broadwing responded that an

12 "IXC makes a business decision on whether and how it will enter markets
13 based on a number of factors including, but not limited to, access costs.
14 An IXC also makes a business decision on whether to serve and where it
15 will serve as a stand-alone IXC or as both an IXC and a CLEC, and in
16 which markets. An IXC also makes a business decision on whether,
17 where and how it will explore ways to reduce switched access costs, such
18 as by use of special access or other arrangements. And, ultimately, the end
19 user customer chooses the carrier(s) from whom the end user obtains
20 service."

21 **Q. DO YOU AGREE WITH BROADWING?**

22 **A.** No, I do not. In the end, Broadwing undermines its own argument by acknowledging that
23 it is the *end user* who makes the decision as to which LEC will provide it service, the

1 destination of the call and consequently which LEC the IXC must obtain switched access
2 from. While I acknowledge that there are differences between originating and
3 terminating switched access, concerns related to the switched access bottleneck are
4 present in both cases because it is the end user (and not the IXC) that ultimately decides
5 on the LEC that supplies switched access to the IXC. While an IXC may choose to build
6 special access facilities to an individual end user, this is only cost-effective when volume
7 is sufficient to justify the expenditures on such facilities.

8 **Q. SOME CLECS SEEM TO SUGGEST THAT QCC CAN AVOID A PARTICULAR**
9 **CLEC'S SWITCHED ACCESS BY PURCHASING ALTERNATIVE**
10 **TERMINATION SERVICES FROM THIRD PARTIES.¹⁹ DO YOU AGREE?**

11 **A.** No. Unless a special access arrangement is being used to reach the end-user, switched
12 access charges are being paid, either by the IXC, or in situations where the IXC hands the
13 call off to an underlying carrier for termination, by the underlying third-party carrier.
14 The use of a third-party carrier merely changes the party that pays the terminating CLEC
15 switched access, but in no way avoids the payment of switched access.

16 **V. JUSTIFIABLE DEPARTURES FROM A UNIFORM PRICE**

17 **Q. IN THEORY, CAN DEPARTURES FROM A UNIFORM PRICE FOR**
18 **SWITCHED ACCESS SERVICES BE JUSTIFIED?**

19 **A.** Yes. As a theoretical matter, sound bases could exist for departing from uniform pricing
20 for switched access services. For example, such departures from uniform pricing may be
21 justified where the provider establishes that the relevant economic cost of provisioning
22 these inputs (i.e., switched access services) varies between customers (i.e., long-distance

¹⁹ See, e.g., Broadwing's response to QCC Interrogatory No. 3, a copy of which is attached to Mr. Easton's direct testimony as Exhibit WRE 6A.

1 providers) in a manner that would potentially justify differences in the price of these
2 inputs. I am not aware of any of the respondent CLECs in this docket having
3 demonstrated (or even endeavored to determine the existence of) any such cost
4 differentials.

5 QCC inquired of each respondent CLEC in discovery whether it performed cost or
6 demand studies in connection with establishing the intrastate switched access rates set
7 forth in the agreement(s). To my knowledge, not a single CLEC responded that it had
8 performed such a study.²⁰ The CLECs' failure to perform such studies suggests two
9 conclusions. First, the CLECs have no credible basis to assert that cost differentials exist
10 that may now be relied upon, retrospectively, as justification for the discounted pricing.
11 Second, cost differences were not, contemporaneously, the CLECs' rationale for offering
12 AT&T and Sprint the discounted rates for switched access. In the absence of economic
13 studies that credibly demonstrate that such differences in price are attributable to
14 corresponding differences in cost, sound regulatory policy would typically establish a
15 default of a uniform price so as to preserve competitive neutrality and reduce the
16 likelihood of the aforementioned efficiency distortions and anticompetitive outcomes in
17 the downstream market.

18 **Q. HYPOTHETICALLY SPEAKING, IF THE CLECS HAD PERFORMED COST**
19 **STUDIES FOR SWITCHED ACCESS, DO YOU BELIEVE IT IS LIKELY THAT**
20 **THEY COULD HAVE JUSTIFIED THE MAGNITUDE OF THE PRICE**
21 **DIFFERENCES AT ISSUE HERE?**

²⁰ See the CLECs' response to QCC Interrogatory Nos. 2(l) and 2(m). See, e.g., Direct Testimony of William R. Easton, Exhibits 6B (Broadwing), 34A (PAETEC) and 40 (US LEC).

1 A. No. I believe it would be unlikely that such a pronounced cost difference could exist
2 given that the service is essentially identical across carriers. In fact, I would go so far as
3 to say that that the credibility of any cost study that seemingly justified such a large
4 difference in price under these conditions would likely be called into question.

5 **Q. HAVE THE CLECS PUT FORTH ANY OTHER EXPLANATION FOR WHY**
6 **THEY AGREED TO THE DISCOUNTED SWITCHED ACCESS AGREEMENTS**
7 **FOR THE SELECTED IXCS?**

8 A. Yes. In discovery, QCC asked each of the respondent CLECs to identify and explain
9 their reasons for offering the preferential rates to the IXCs with which they entered into
10 switched access agreements. Many of the CLECs responded that they entered into the
11 agreement to resolve billing disputes with AT&T, which several CLECs described as
12 having "forced" the CLECs into the agreement.²¹ The CLECs further explained that
13 because AT&T refused to pay the published rates for switched access, entering into the
14 agreements (inclusive of the corresponding discounts) was the only cost-effective means
15 by which to induce AT&T to pay the CLECs for switched access.

16 **Q. DOES THIS EXPLANATION PROVIDE A VALID ECONOMIC BASIS FOR**
17 **DISCRIMINATING BETWEEN QCC AND THE IXCS THAT BENEFITED**
18 **FROM THE SWITCHED ACCESS AGREEMENTS?**

19 A. No. I have no doubt that the CLECs made what they perceived to be a rational
20 (economic) business decision to grant these discounts rather than run the risk of not being
21 paid for their services or incurring the cost of litigating the matter.

²¹ See, e.g., Direct Testimony of William Easton, Exhibits WRE 12, WRE 24A and WRE 24B.

1 As a matter of economics, I do not believe that “unwillingness to pay” on the part of
2 AT&T constitutes a legitimate basis for distinguishing between customers – particularly
3 for a bottleneck input such as switched access. From a policy perspective, I would think
4 that the Commission would not look favorably upon the unilateral decision by the CLECs
5 to redress their grievances in this manner, particularly when the effect of doing so is to
6 flout state law that explicitly required them to avoid unreasonable rate discrimination. To
7 the extent CLECs seek to blame the IXCs for their predicament, it would seem that
8 Commission or other appropriate legal proceedings rather than secret “off-price list”
9 agreements would have been the appropriate avenue through which to redress their
10 grievances with the selected IXCs.

11 **Q. DO YOU BELIEVE THE EXPLANATION PROFFERED BY THE CLECS TO**
12 **RATIONALIZE THE PREFERENTIAL TREATMENT FOR CERTAIN IXCS IS**
13 **RELEVANT TO THE COMMISSION’S EVALUATION OF THESE**
14 **AGREEMENTS?**

15 **A.** Yes. The CLECs’ explanation – that they were essentially forced into entering into these
16 agreements to avoid costly and protracted dispute resolution processes and to induce
17 AT&T to pay for switched access – is important in assessing any other “justifications”
18 the CLECs may later put forth to explain the differential treatment of QCC *vis-à-vis* the
19 favored IXCs. It is conceivable that the CLECs will set forth various arguments to
20 identify supposed differences between QCC and the favored IXCs. Should this occur, the
21 Commission will be in a better position to determine whether the CLECs (1) have
22 identified legitimate differences between the favored IXCs and QCC; or (2) are merely

1 grasping for any distinction that may provide an *ex post* justification for the agreements
2 they entered into with the favored IXCs.

3 **Q. DOES TW TELECOM ALLEGE THAT AT&T'S PURCHASE OF OTHER**
4 **SERVICES JUSTIFIED ITS DISPARATE SWITCHED ACCESS RATE**
5 **TREATMENT IN FLORIDA?**

6 **A.** Yes. tw telecom ("TWT") states that its agreement with AT&T discounted intrastate
7 switched access "in conjunction with a total revenue commitment set forth" in that
8 agreement. TWT states that "the provisions regarding switched access were dependent
9 upon all of the other provisions of the AT&T/TWTC Agreement, which also
10 encompassed purchases of other, non-intrastate service, most notably a revenue
11 commitment on a "take or pay" basis that required AT&T to pay the difference between
12 the applicable commitment in any contract year and its actual purchases of eligible
13 services under the AT&T/TWTC Agreement."²² TWT continues that QCC and AT&T
14 were not "similarly situated" in terms of its ability to make a revenue commitment at
15 similar levels (as AT&T).²³

16 Similarly, PAETEC's 2008 switched access agreement with AT&T conditions AT&T's
17 receipt of the fixed dollar credits shown in Schedule A of that agreement on AT&T's
18 purchase of "other services."²⁴

19 **Q. DO YOU AGREE WITH TWT THAT QCC AND AT&T WERE NOT**
20 **SIMILARLY SITUATED IN TERMS OF THOSE CLECS' PROVISION OF**
21 **INTRASTATE SWITCHED ACCESS IN FLORIDA?**

²² See Mr. Easton's Exhibit WRE 37 (TWT's response to QCC Interrogatory No. 2(b)).

²³ Id. (TWT's response to QCC Interrogatory No. 2(i)).

²⁴ See Mr. Easton's Exhibit WRE 33B.

1 A. No. In fact, I strongly disagree with TWT's position. Setting aside the legal question
2 (which I will leave for counsel to brief) of whether it is justifiable to condition a discount
3 off of bottleneck switched access services on the purchase of unrelated, competitive
4 services, TWT has not demonstrated a credible economic basis for favoring AT&T in its
5 pricing of intrastate switched access in Florida.

6 To the best of my knowledge, TWT has not demonstrated, nor has any economic study of
7 which I am aware demonstrated, that the cost of providing switched access varies with
8 the amount of unrelated services (including, I assume, dedicated or special access
9 services) purchased by an IXC. The absence of such proof does not surprise me. While I
10 am not a network engineer, it is my understanding that the two types of services
11 (switched access and special access) are virtually unrelated, except to the extent that an
12 IXC with large volumes of traffic to a particular calling area or location may find it
13 economically advantageous to purchase special (dedicated) access as an alternative to
14 switched access. To my knowledge, a LEC's per-minute cost of providing tandem-routed
15 switched access is invariant irrespective of which IXC customer is using the service, how
16 many minutes of use that IXC (or any IXC) uses in a particular month or what and how
17 many other unrelated services an IXC happens to purchase from the LEC.

18 **Q. HAS MCI RAISED ANY UNIQUE THEORY CONCERNING ITS SECRET**
19 **AGREEMENT WITH AT&T?**

20 A. Based on MCI's testimony and briefing in the parallel Colorado proceeding and its
21 responses to discovery in this case, I understand that MCI takes the following position.
22 MCI argues that it entered into a "reciprocal" discount arrangement with AT&T, and that

1 QCC was therefore not “similarly situated” to AT&T because QCC did not offer
2 intrastate switched access at the time.²⁵

3 **Q. DO YOU AGREE THAT THE BILATERAL, “RECIPROCAL” NATURE OF**
4 **THE AGREEMENTS BETWEEN MCI AND AT&T PROVIDED A CREDIBLE**
5 **BASIS FOR THE DISCRIMINATORY RATE TREATMENT CONTAINED IN**
6 **THE OFF-PRICE LIST AGREEMENT?**

7 A. No. According to MCI, MCI and AT&T granted one another discounts from standard
8 tariff switched access rates. And, according to MCI, because QCC could not satisfy the
9 precondition of reciprocity, QCC was not and could not be “similarly situated.” MCI’s
10 syllogism presupposes three critical facts: (i) that the arrangement with AT&T was truly
11 “reciprocal” in any balanced sense; (ii) that reciprocity alone is a sufficient basis for
12 discrimination; and (iii) that had QCC been offered the same arrangement, it would not
13 have had cause to reevaluate the economic viability of offering intrastate switched access.
14 As Mr. Easton describes in his direct testimony, the arrangement may not have truly been
15 “reciprocal” and [BEGIN LAWYERS ONLY CONFIDENTIAL] [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED] [END LAWYERS

20 ONLY CONFIDENTIAL]

21 Even accepting for the sake of argument that MCI’s factual premise is true, this alone
22 would not be sufficient to substantiate its case that discrimination was appropriate. MCI

²⁵ See Mr. Easton’s Exhibit WRE 27 (MCI’s response to QCC Interrogatory No. 2(i)).

1 has not demonstrated, for example, that it contemporaneously determined that the cost of
2 supplying switched access to AT&T was lower, let alone significantly lower, than the
3 cost of supplying the same service to QCC and other IXCs.²⁶ Under these conditions, as
4 well as the conditions described by Mr. Easton, the obvious concern would be that
5 “reciprocity” is simply a means by which to grant a secret net discount to AT&T. In any
6 event, MCI’s reliance on “reciprocity” as a qualifying condition for the discount seems
7 unfounded as a matter of economic theory.

8 **Q. HAVE OTHER REGULATORY COMMISSIONS FOUND THAT THESE TYPES**
9 **OF RECIPROCAL AGREEMENTS ARE ANTICOMPETITIVE?**

10 **A.** Yes. The Minnesota Public Utilities Commission investigated the companion AT&T (as
11 CLEC) – MCI (as IXC) off-tariff agreement. In the following passage, the Minnesota
12 Commission describes how the twin agreements undermine the competitive process to
13 the detriment of consumers.

14 Ideally a competitive market would reward the most efficient firms. ALJ
15 [*sic*] else being equal, the most efficient firms would be able to offer lower
16 prices - attracting customers away from competitors - and the promise of
17 higher returns - attracting investors away from competitors. Here AT&T
18 and MCI provided secret subsidies to each other's long-distance
19 operations, and not to other long-distance carriers. As a result, these
20 carriers were able to obtain a cost advantage over all other long distance
21 carriers and report higher profits than if they had not received the

²⁶ See Mr. Easton’s Exhibit WRE 27 (MCI response to QCC Interrogatory No. 2(1)).

1 subsidies. This conduct distorts the market, harms competition, and
2 ultimately harms consumers.²⁷

3 The concern on the part of the Minnesota Commission is that the actions of AT&T and
4 MCI served to undermine the integrity of the competitive process to the detriment of
5 consumers.²⁸

6 **Q. HAVE THE CLECS PRESENTED CREDIBLE EVIDENCE TO SUBSTANTIATE**
7 **THE CLAIM THAT DIFFERENCES IN THE VOLUME OF SWITCHED**
8 **ACCESS SERVICES PROVIDED BY THE CLEC TO QCC, AT&T AND SPRINT**
9 **JUSTIFY DISPARATE RATE TREATMENT?**

10 **A.** No. A number of CLECs generally allege that QCC was not similarly situated to the
11 IXCs favored by the secret switched access agreements because those IXCs obtained
12 more switched access during the relevant period. For example, in response to discovery,
13 both Broadwing and DeltaCom alleged that volume differences sufficiently distinguish
14 QCC and the preferred IXCs to have permitted their price differentiation.²⁹

15 While volume differences can provide a credible basis for price differentiation, they do
16 not in the context of intrastate switched access. First, it is my understanding that none of
17 the agreements at issue in this case contain volume requirements. In other words, the

²⁷ In the Matter of the Complaint of the Minnesota Department of Commerce for Commission Action Against AT&T Regarding Negotiated Contracts for Switched Access Services, DOCKET NO. P-442, 5798, 5340, 5826, 5025, 5643, 443, 5323, 5668, 4661/C-04-235, Minnesota Public Utilities Commission, 2007 Minn. PUC LEXIS 146 October 26, 2007, Issued, page 10.

²⁸ *Id.*, page 10.

²⁹ See Mr. Easton's Exhibit WRE 6A (Broadwing's response to QCC Interrogatory No. 2(i)) ("Broadwing believes that in Florida, Qwest pays Broadwing's tariffed/listed rate, which is the same rate paid by carriers that do not have the same collection of services, architectural arrangements, call volumes and types, and where applicable, the ability to provide reciprocal services, as the entities entering into the [subject] agreements. Further, certain agreements were entered into in settlement of unique disputes between the parties."). See also Mr. Easton's Exhibit WRE 15 (DeltaCom's response to QCC Interrogatory Nos. 2(b) and 2(i)).

1 preferred IXC received the stated discount regardless of whether it purchased 10 minutes
2 or 10,000,000 minutes of switched access from the CLEC. Clearly, it was not volume
3 levels that motivated the CLECs to enter into these secret agreements.

4 Further, and more importantly, the CLECs have not demonstrated (nor am I aware of any
5 study demonstrating) that a CLEC's cost of providing intrastate switched access in
6 Florida varies depending upon the volume of minutes provided to any particular IXC. As
7 such, "volume" is an irrelevant factor. In the parallel Colorado proceeding, the
8 Commission rejected the identical argument posed by the CLECs. In Decision No. C11-
9 1216, the Commission stated.

10 75. We agree with the ALJ that QCC effectively rebutted any
11 claim that differences in size or traffic volumes justified price
12 differentiation, in this particular case. This is because the cost of
13 providing switched access does not depend on the traffic volume, or which
14 IXC is utilizing that service. Further, the functionality, service elements,
15 and the facilities over which the respondent CLECs provided switched
16 access were identical in this case, regardless of whether a CLEC serviced
17 QCC or one of the other IXCs. It is true the costs of providing some
18 services can vary by volume, especially if dedicated facilities are
19 involved; however, these circumstances are not present here. Further, we
20 find persuasive QCC's argument that none of the unfilled off-tariff
21 agreements ties the discount to the IXC to the purchase of specific
22 volumes of switched access service. To the contrary, all of the unfilled
23 agreements at issue in the instant proceeding grant the discount in

1 unlimited fashion, regardless of how much switched access a favored IXC
2 purchases. This alone is fatal to the claim that differences in size or traffic
3 volumes justifies price discrimination in this case. * * *

4 **VI. CONCLUSION AND RECOMMENDATIONS**

5 **Q. DO YOU HAVE ANY CONCLUSIONS AND RECOMMENDATIONS FOR THE**
6 **COMMISSION'S CONSIDERATION?**

7 **A.** Yes. Throughout my professional career, in both my published works and expert
8 testimony, I have argued consistently and unwaveringly for the need for regulation to
9 defer to market forces when the latter could provide the requisite competitive discipline.³⁰

10 In the special case of switched access services, those market forces are clearly not
11 present, even when those services are provided by CLECs. As a result, the Commission
12 must intervene to provide the necessary oversight and serve as the surrogate for such
13 market forces in the provision of switched access services to ensure the development of
14 fair and effective competition and prevent anticompetitive behavior.

15 From an economic perspective, credible bases for differential pricing—cost differences,
16 for example—may exist, at least in theory. To date, however, no credible basis for
17 differential pricing has yet been advanced by the opposing parties in this case. Absent a
18 credible basis for differential pricing for switched access services, I would respectfully
19 recommend that the Commission find that any such differential pricing is inconsistent
20 with the principles of competitive neutrality. That is to say, absent a credible basis (both
21 economic and legal) for differential pricing of switched access services, the Commission

³⁰ Dennis L. Weisman, "A 'Principled' Approach to the Design of Telecommunications Policy." *Journal of Competition Law & Economics*, Vol. 6(4), December 2010, pp. 927-956; and Glen O. Robinson and Dennis L. Weisman, "Designing Competition Policy for Telecommunications." *The Review of Network Economics*, Vol. 7(4), December 2008, pp. 509-546.

1 should determine that the default price should have been and continue to be a uniform
2 price—each long-distance carrier pays the same price for switched access services.

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

4 A. Yes, it does.

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	Associate Professor of Economics (1996 – 2000)
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1989 - 1993	SBC Communications Inc. (now AT&T):
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2008 – Present	Board of Academic Advisors, The Free State Foundation.
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- 2005 – 2006 Regulatory Framework Working Group, Digital Age Communications Act (DACA) Project, Progress and Freedom Foundation.
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- 2003 – 2006 Advisory Board, The Institute for Regulatory Law and Economics.
- 2002 – 2003 Guest Editor, Symposium on Incentive Regulation, *The Review of Network Economics*, Vol. 2(4), December 2003.
- 2000 - 2003 Dean's Advisory Council On Tenure and Promotion in Arts and Sciences.
- 1998 - 2005 Associated Faculty Member, Center For Research In Regulated Industries, Rutgers University.
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Review of Blackmon’s INCENTIVE REGULATION AND THE REGULATION OF INCENTIVES, *Review of Industrial Organization*, Vol. 11, No. 4, August 1996, pp. 563-566.

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“Eliminating Racial Preferences in College Admissions.” *The Economists’ Voice*, Vol. 9(1), 2012, Article 1, June 2012, pp. 1-3 (with G. Robinson).

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WORK IN PROGRESS:

“The Use and Abuse of Competition Law Principles for Regulatory Forbearance.”

“Safe Harbor Input Prices and Market Exclusion.”

“On *Goldilocks* Input Prices and Exclusionary Conduct.”

“The Law and Economics of Vertical Integration and Exclusionary Conduct.”

TESTIMONY AND AFFIDAVITS:

Alberta Utilities Commission

Arkansas Public Service Commission

California Public Utilities Commission

Canadian Radio-Television and Telecommunications Commission

Colorado Public Utilities Commission

Federal Communications Commission

Kansas Corporation Commission

Kansas State Legislature (Commerce Committee)

Missouri Public Service Commission

TESTIMONY AND AFFIDAVITS (CONTINUED):

Texas Public Utilities Commission

United States Court of Appeals for the District of Columbia

United States Supreme Court (Research Citation)

INVITED PRESENTATIONS:

“Telecommunications: Assessing The Lessons from the 1996 Telecommunications Act,” Deregulation Revisited: A Tribute to Fred Kahn. University of Colorado Law School, Boulder, Colorado, September 2008.

“Properly Structured Incentive Plans.” Missouri Public Service Commission, Electric Roundtable Discussion Group. Jefferson City, Missouri, December 2001.

“Regulatory Moral Hazard: Price Caps and Endogenous Entry Under the 1996 Telecommunications Act.” Competitive Entry In Regulated Industries. Center For Research In Regulated Industries, Rutgers University, Newark, New Jersey, May 2000.

“The Telecommunications Act of 1996: The ‘Costs’ of Managed Competition.” American Enterprise Institute, Washington D.C., September 1999 (with D. Lehman).

“Vertical Integration and Exclusionary Behavior in Network Industries.” The Rutgers University 12th Annual Western Conference of the Advanced Workshop In Regulation and Competition, San Diego, California, July 1999.

“The Political Economy of Price Cap Regulation.” The Rutgers University 11th Annual Western Conference of the Advanced Workshop In Regulation and Competition, Monterey, California, July 1998.

“Regulation and Common Costs: Estimation versus Allocation – A Discussion.” Pricing and Costing A Competitive Local Telecommunications Network. American Enterprise Institute, Washington D.C., November 1997.

“Does Tighter Price Cap Regulation Increase Consumer Welfare?” The Rutgers University 10th Annual Western Conference of the Advanced Workshop In Regulation and Public Utility Economics, San Diego, California, July 1997.

“Competition, Incentive Regulation, and Strategic Behavior Under The 1996 Telecommunications Act.” Utility Regulation And Strategy: The Basics Revisited. Conference sponsored by the Public Utility Research Center at the University of Florida, Gainesville, Florida, February 1997.

INVITED PRESENTATIONS (CONTINUED):

“Competitive Incentives of Vertically Integrated Local Exchange Carriers.” Twenty-Third Annual Telecommunications Policy Research Conference. Solomons, Maryland, October 1995; and The Rutgers University 9th Annual Western Conference of the Advanced Workshop In Regulation and Public Utility Economics, San Diego, California, July 1996.

“Seven Myths About Incentive Regulation.” Pricing and Regulatory Innovations Under Increasing Competition. Conference sponsored by the Center for Research in Regulated Industries, Rutgers University, Newark, New Jersey, October 1995.

“Strategic Behavior of the Vertically Integrated Firm: The Case of RBOC Entry Into InterLATA Long Distance.” The Rutgers University 8th Annual Western Conference of the Advanced Workshop In Regulation and Public Utility Economics, San Diego, California, July 1995.

“The Promise and Pitfalls of Incentive Regulation.” Market and Technological Convergence: Implications For Regulation. Conference sponsored by the Public Utility Research Center at the University of Florida, Gainesville, Florida, April 1995.

“Potential Pitfalls in Empirical Investigations of the Effects of Incentive Regulation Plans in The Telecommunications Industry.” Telecommunications Infrastructure and the Information Economy: Interaction Between Public Policy and Corporate Strategy. Conference sponsored by the School of Business at the University of Michigan, Ann Arbor, Michigan, March 1995.

“Designing Incentive Regulation For The Telecommunications Industry.” American Enterprise Institute, Washington D.C., March 1995 (with D. Sappington).

British Broadcasting Corporation (BBC) Radio Interview with Dan Corry of the Institute For Public Policy Research, London, England. Documentary. “Analysis: The Regulatory State?” October 23, 1994.

“Designing Carrier of Last Resort Obligations.” The Rutgers University 7th Annual Western Conference of the Advanced Workshop in Regulation and Public Utility Economics, San Diego, California, July 1994.

“Incentive Regulation: Lessons From Telecommunications.” Innovative Incentive Rate Regulation for a Competitive Electric Utility Industry. Conference co-sponsored by the Center for Regulatory Studies and the Institute of Government and Public Affairs. Chicago, Illinois, April 1994.

INVITED PRESENTATIONS (CONTINUED):

"Why Less May Be More Under Price Cap Regulation." Twenty-First Annual Telecommunications Policy Research Conference. Solomons, Maryland, October 1993; and The Rutgers University 12th Annual Eastern Conference of the Advanced Workshop in Regulation and Public Utility Economics, Brewster, Cape Cod, Massachusetts, May 1993.

"Managed Competition In Telecommunications." Regulation and Planning In A Market Economy. Conference sponsored by the Public Utility Research Center, University of Florida. Gainesville, Florida, April 1993.

"Cross-Subsidization and Price Predation in Public Enterprise;" and "Incentive Regulation: Theory and Practice." Southeastern Regional Business and Economics Utilities Conference, Atlanta, Georgia, September 1991.

"Post-Divestiture Pricing Trends In The Telecommunications Industry." Divestiture: Five Years Later. Conference sponsored by the Center for Telecommunications and Information Studies at Columbia University, Washington, D.C., March 1989.

"The Impact of Telecommunications Regulation On The Economic Incentives of Private Network Deployment." National Communications Forum, Chicago, Illinois, October 1988.

"Protecting The Right To Be Served By Regulated Utilities Subject To Competition: A Critical Assessment." 11th World Engineering Congress, Atlanta, Georgia, October 1988.

"Default Capacity Tariffs: Smoothing The Transitional Regulatory Asymmetries In The Telecommunications Marketplace." Fifteenth Annual Telecommunications Policy Research Conference, Airlie, Virginia, November 1987.

"Traffic Sensitive Costs, Bypass and Pricing For Carrier of Last Resort." Bell Communications Research Conference on Traffic Sensitive Cost Recovery. Seattle, Washington, July 1986.

"Forecasting Bypass Adoption In Telecommunications." National Forecasting Conference, Denver, Colorado, June 1985.

"A General Theory of Point-to-Point Long Distance Demand." Bell Communications Research Business Research Conference, Durango, Colorado, October 1984.

HONORS, AWARDS, AND GRANTS:

- | | |
|-------------|---|
| 2008 | MBA Student's Professor of the Semester (First Time Award Presented to a Faculty Member Outside the College of Business Administration) |
| 2004 – 2005 | Center for Applied Economics Grant (Principal Investigator) |
| 2004 | Edgar S. Bagley Research Award |
| 2001 | Edgar S. Bagley Research Award |
| 1999 – 2000 | American Enterprise Institute Grant (Co-Principal Investigator) |
| 1996 | William L. Stamey Teaching Award |
| 1995 | Edgar S. Bagley Research Award |
| 1993 | First-Place (Shared) In Graduate Student Paper Competition, Twenty-First Annual Telecommunications Policy Research Conference |
| 1990 – 1993 | Florida Public Service Commission Grant to the Public Utility Research Center at the University of Florida (Co-Principal Investigator) |
| 1984 – 1993 | Designated Very High Potential Manager, SBC Communications |
| 1991 | First-Place In Paper Competition sponsored by Public Utilities Reports, Inc., Southeastern Business and Economics Utilities Conference (with S. Berg) |
| 1991 | University of Florida Research Fellowship |
| 1989 | Management Stock Award, Southwestern Bell Corporation |
| 1979 | B.A. Conferred with High Honors |
| 1971 | Eagle Scout Award |

EDITOR AND EDITORIAL BOARD SERVICE:

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| 2009 – Present | The Review of Network Economics (Editor) |
| 1997 – Present | Journal of Regulatory Economics (Editorial Board) |
| 1996 – Present | Information Economics and Policy (Editorial Board) |
| 2003 – 2009 | The Review of Network Economics (Editorial Board) |

REFEREE/REVIEWER FOR:

Addison-Wesley
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Applied Stochastic Models in Business
and Industry
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Economics Letters
Edward Elgar Publishing
Empirical Economics
Encyclopedia of Energy Engineering and
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Organization
The Review of Economics and Statistics
The Review of Network Economics
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