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Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

**Ex Parte: Federal-State Joint Board on Universal Service, CC Docket No. 96-45**

Dear Ms. Dortch:

On July 23, 2002, Verizon representatives met with various members of the Wireline Competition Bureau as well as state Joint Board staff members. The purpose of that meeting was to discuss Verizon's comments filed in response to the Commission's NPRM regarding issues from its *Ninth Report and Order* remanded by the United States Court of Appeals for the Tenth Circuit as well as Verizon's *ex parte* of June 26, 2002.

During that discussion, Verizon was asked to provide certain follow-up information to supplement the record in this proceeding. The first request was to provide quotes from the legislative history of the Telecommunications Act of 1996 (the 1996 Act) that supported Verizon's position regarding the purpose of Section 254. Verizon contends that Congress added Section 254 to ensure that competition resulting from the 1996 Act would not upset the comparability between urban and rural areas that existed at that time. The second request was to provide further support for Verizon's proposal to use two standard deviations around the mean, in evaluating the comparability of data points from a sample, as a statistically accepted approach.

For the first item, many of the floor debates and associated reports, which led up to the passage of the Act, provide insight into the congressional intent of Section 254. The intent behind an explicit universal service requirement was to preserve and maintain what was already there—reasonably priced and affordable telephone service. Up until this point, this condition was largely accomplished by, "... the current implicit authority of the FCC and the States to require common carriers to provide universal service." (Senate Committee Report, March 30, 1995). However, the implicit universal service mechanisms would become unsustainable in a the competitive environment that would be promoted by the 1996 Act. As Senator Dorgan expressed: "That is why the protection of universal service is the most important provision in this legislation. S. 652 contains provisions that make it clear that universal service must be maintained and that citizens in rural areas deserve the same benefits and access to high quality telecommunications services as everyone else." (June 8, 1995 Senate Floor debate, Page S

7951). Likewise, Senator Pressler noted: "The need to *preserve* widely available and reasonably priced telephone service is one of the fundamental concerns addressed in The Telecommunications Competition and Deregulation Act of 1995." (June 7, 1995, Floor debate, Page S7886) (emphasis added). Representative Bonilla also noted: "It is essential that our rural residents *continue* to have equal and affordable phone service." (August 4, 1995, House floor debate, Page H 8497) (emphasis supplied).

While the legislative necessity for universal service was clear, rural "farm team" members continued to worry about the unintended consequences of competition and deregulation in rural areas. As Senator Daschle noted: "While the overall goal of this legislation is to increase competition, the universal service section and other pieces recognize the fact that competition will not work everywhere. This is especially true in rural areas like South Dakota." (June 9, 1995, Floor Debate, Page S. 8066). Or, as Senator Dorgan noted: "[a] one-size-fits-all approach to competition in the local exchange may have destructive implications. In large, high-volume urban markets, competition will certainly be positive. However, in smaller, rural markets, competition may result in high prices and other problems. The fact is that some markets; namely, high-cost rural areas, competition may not serve the public interest. If left to market forces alone, many small rural markets would be left without service." (June 8, 1995, Floor Debate, Page S 7951). While these statements expressed the farm team's concerns with competition, deregulation and the absolute need for a strong universal service provision in this landmark law, there was never any concern that telephone rates, at that time, were not reasonably comparable and/or affordable. To the contrary, Section 254 was intended to provide a backstop in the event that competition put pressure on rural telephone rates causing them to rise. As Representative Bonilla stated: "This bill protects universal service . . . [it] contains important protection for these communities including universal service principles that provide for comparable rural/urban rates and service." (August 4, 1995, Floor debate, Page H. 8497).

Interestingly, while universal service was being vigorously debated as a provision to protect rural consumers, other legislators did not foresee any unusual circumstances on the immediate horizon that might threaten either universal service or local telephone rates that were effective at this time. As Senator Kerry noted: "We are basically accepting the status quo, and I declare and disclose, I participated with the farm team as we tried to keep this universal service idea alive." (June 8, 1995, Floor debate, Page S7959). Likewise, Senator Pressler stated: "Mr. President, to smaller cities and rural communities and others who depend upon universal service nothing is changed. They continue to enjoy affordable access to phone service as before." (June 7, 1995, Floor Debate, Pages S 7892-S7893). Therefore, as noted here, the universal service provision was enacted to protect, preserve and maintain reasonable and affordable rates, and nothing in the legislative history was explicitly noted or discussed that would lead one to conclude that local telephone rates were not already reasonably comparable.

As to the request for more supporting information regarding the use of two standard deviations, the attached information has been supplied to address this matter. Verizon continues to believe that the Commission should define "reasonably comparable" rates as those that fall within two standard deviations of the observed mean of the distribution of such rates. The Commission's cost benchmark of 135% allows the interstate high cost mechanism to support rate comparability, because it would ensure that no state would have to set rates to recover costs that would exceed the nationwide average cost by more than approximately two standard deviations.

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Statistical tests that compare values to the mean of a distribution are commonly used to evaluate the comparability or parity of the observed values. Observations that exceed the mean by more than two standard deviations are commonly held not to be comparable. This standard has been widely accepted by not only the academicians, but also by both the FCC and the state commissions, as a reasonable method for evaluating the comparability of observed values. Authoritative cites have been attached which support the validity of this approach.

Pursuant to Section 1.1206(a)(1) of the Commission's rules, and original and one copy of this letter are being submitted to the Office of the Secretary. Please associate this notification with the record in the proceedings indicated above. If you have any questions regarding this matter, please call me at (202) 515-2530.

Sincerely,



W. Scott Randolph

Attachment

cc: Bill Scher  
Katie King  
Narda Jones  
Geoff Waldau  
Jennifer Schneider

## Appendix A

### Two Standard Deviations

In its comments on the 10<sup>th</sup> Circuit remand, Verizon has argued that the Commission should define “reasonably comparable” rates as those that fall within two standard deviations of the observed mean of the distribution of such rates. An analysis of the FCC’s cost model shows that two standard deviations translates approximately to a 135% benchmark. Therefore, retention of the Commission’s 135% benchmark would allow the interstate high cost mechanism to support the objective of reasonably comparable rates, so defined, because it would ensure that no state would have to set rates to recover costs that would exceed the nationwide average cost by more than approximately two standard deviations.<sup>1</sup>

Statistical tests that compare values to the mean of a distribution are commonly used to evaluate the comparability or parity of the observed values. When an observation exceeds the mean by more than two standard deviations, it is commonly held not to be comparable, since in that case the probability is greater than 95% that the observation was produced by a fundamentally different underlying mechanism.

This approach to judging comparability can be found in any standard textbook on statistics. See, for example:

“The value for which  $P = .05$ , or 1 in 20, 1.96 or nearly 2; it is convenient to take this point as a limit in judging whether a deviation is to be considered significant or not. Deviations exceeding twice the standard deviation are thus formally regarded as significant.”<sup>2</sup>

In various applications, both the FCC and state commissions have adopted this statistical approach as a standard for determining parity or comparability. For example, state commissions have adopted a test based on a 95% confidence level to determine whether the performance provided to CLECs by an ILEC is comparable to the performance the ILEC provides itself. See, for example, the Order adopted by the New York Public Service Commission:

“The incumbent local exchange carrier (ILEC) may be required to use statistical methodologies as a means to determine if “parity” exists, or if the performance for competitive local exchange carriers (CLECs) is equivalent to the performance for the incumbent ILEC. . . . A statistical score below  $-1.645$  is associated with a 5% or less chance that the performance for the CLEC will be incorrectly judged as being inferior to the ILEC performance.”<sup>3</sup>

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<sup>1</sup> As Verizon demonstrated in its comments, 132% is two standard deviations above the nationwide average cost, as measured by the FCC’s cost proxy model.

<sup>2</sup> Statistical Methods, Experimental Design and Scientific Inference, R.A. Fischer, Oxford University Press Inc., New York, reprinted 1995, page 44. The application discussed in this citation, like that of the cost benchmark, involves a “two-tailed” statistical test, in which a difference of two standard deviations corresponds to a 95% confidence level.

<sup>3</sup> Case 97-C-0139 – Proceeding on Motion of the Commission to Review Service Quality Standards for Telephone Companies, April 29, 2002, Appendix K, Statistical Methodologies, page 1. As the New York Order recognizes, the precise structure of the test required to apply a 95% standard depends on the structure of the variable being observed. In the example cited here,

The Pennsylvania PUC has made a similar finding:

"We agree with the ALJs that the weight of evidence argues in favor of 95% certainty against Type I errors. In this regard, we note that the various Parties' testimony all mentioned this standard with favor, and we shall adopt it here."<sup>4</sup>

As the Pennsylvania PUC noted in its Order, the record in these proceedings, both at the FCC and in the states, reflects support from a wide range of parties for this approach to evaluating comparability. See, for example, an expert affidavit submitted by AT&T to the FCC:

"AT&T proposes to set the Type I error at no more than the conventional level of 5%."<sup>5</sup>

The FCC, relying in part on standards developed in New York and California,<sup>6</sup> adopted a similar approach in its conditions for approval of the Verizon merger:

"Verizon will use statistical methodologies as one means to determine if "parity" exists, or if the performance for CLECs is equivalent to the performance for Verizon. A score of -1.645 "provides a 95% confidence level that the variables are different."<sup>7</sup>

In summary, a definition of "reasonable comparability" based on a 95% confidence level, which corresponds with a variation of two standard deviations, is consistent with commonly accepted statistical practice. Such a standard has been widely adopted, by both the FCC and the state commissions, as a reasonable method for evaluating the comparability of observed values. In the context of the interstate high cost fund, this 95% confidence level corresponds to a benchmark set two standard deviations, or 132%, above the nationwide average cost – very close to the 135% benchmark already established by the Commission.

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which is a "one-tailed" test, a different value of the test statistic (-1.646) provides the same 95% confidence level.

<sup>4</sup> Joint Petition of NEXTLINK Pennsylvania, Inc., RCN Telecommunications Services of Pennsylvania, Inc., Hyperion Telecommunications, Inc., ATX Telecommunications, Focal Communications Corporation of Pennsylvania, Inc., CTSI, Inc., MCI Worldcom, e.Spire Communications, and AT&T Communications of Pennsylvania, Inc., for an Order Establishing a Formal Investigation of Performance Standards, Remedies, and Operations Support Systems Testing for Bell Atlantic-Pennsylvania, Inc., Opinion and Order ("PA PUC Performance Metrics Order"), P-00991643, Order Entered December 31, 1999, page 143.

<sup>5</sup> Affidavit of Dr. Collin Mathews, CC Docket No. 98-56, Performance Measures and Reporting Requirements for Operations Support Systems, Interconnection and Operator Services and Directory Assistance, at Page 13. See also Page 24: "a one-tailed test with Type I error at about the 5% level strikes a fair balance between the need to account for both Type I and Type II errors." This affidavit has also been filed by AT&T in a number of state proceedings. Further information supporting the 5% standard is provided in AT&T Statistical Ex Parte, pages B-1 and B-2.

<sup>6</sup> PA PUC Performance Metrics Order, Attachment A, Carrier to Carrier Performance Assurance Plan, at ¶ 3.

<sup>7</sup> PA PUC Performance Metrics Order, Attachment A-3, Calculation of Parity and Benchmark Performance, page 1.