

1     ***Benchmarks***

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3     **Q.     Let's turn to the fifth section of your testimony concerning Benchmarks. What is**  
4     **the purpose of a benchmark, in the context of a universal service fund?**

5     A.     A benchmark is useful in identifying high cost areas, and determining the amount of support  
6     needed by these areas. It provides a numerical basis for evaluating the extent to which costs  
7     in a particular area are above the "norm," and thus needing support. The benchmark could  
8     be based upon average revenues or average cost per line. High cost support would be  
9     provided if the per line costs in a particular area exceed the benchmark. This section of my  
10    testimony will discuss what has transpired at the federal level concerning the appropriate  
11    benchmark. I will outline the pros/cons and the appropriate components of each type of  
12    benchmark. It is also important to discuss how each benchmark impacts the size of the fund  
13    in ways the Commission needs to be aware of

14  
15    **Q.     Did the FCC initially select a revenue benchmark?**

16    A.     Yes. For federal universal service funding purposes, the FCC initially decided to establish a  
17    nationwide benchmark based on average revenues per line. [*Universal Service Order*, ¶  
18    259]. Furthermore, the FCC decided that the benchmark would include revenues from  
19    local, "discretionary", interstate and intrastate access services, as well as "other  
20    telecommunications revenues". [Id.]. Discretionary services has been defined by the Joint  
21    Board as including services "that are added on to basic local service, e.g., call waiting, call  
22    forwarding or caller ID". [See *Universal Service Order*, note 680]. The FCC did not  
23    define "other telecommunications revenues", but implied that some amount of intraLATA toll  
24    revenues would be included. [Id., ¶ 267].

1     **Q.     If a revenue benchmark were chosen for the IUSF, what revenues should the**  
2     **Commission include in the benchmark?**

3     A.     In general, the revenues included in the benchmark should be consistent with the methods  
4     used in calculating the forward-looking economic costs of constructing and operating the  
5     network. If the cost methodology includes the entire cost of the loop and port, then the  
6     revenue benchmark should include revenues from all services that use the loop and port.

7             As I explain in Appendix B, these are joint or common costs, which are not, and  
8     should not be, borne entirely by any one service which relies upon them. In addition to  
9     revenues from basic local exchange service, these costs are related to, and supported by,  
10    numerous other revenue sources, including interstate switched access, intrastate switched  
11    access, intrastate toll, custom calling, Caller ID and directory publishing. It would be  
12    illogical to compare the entire amount of loop and port costs with the revenues from just one  
13    of the revenue sources that reimburse these costs, such as basic local exchange rates. If the  
14    entire amount of loop and port costs is being considered in the analysis, other sources of  
15    revenues should also be considered, since these are available to help offset those costs. The  
16    loop and port are also required for the provision of these other services. If the full cost of the  
17    loop and port are included in the cost of universal service, it is appropriate to balance  
18    against this cost the revenues from the full range of services benefitting from them.

19  
20    **Q.     Could you be more specific about which revenues to include, if the analysis includes**  
21    **100% of the joint costs?**

22    A.     The benchmark should include local revenues, which consist of the basic local rate, the end  
23    user common line charge, touch tone, extended area service (EAS) and Outside Base Rate  
24    Area revenues. The benchmark should also include revenues from discretionary services,  
25    including Custom Calling as well as Caller ID and other CLASS revenues. A substantial

1           portion of toll and switched access revenues should also be included. Specifically, the  
2           benchmark should include the amount of toll and switched access revenues attributable to  
3           use of the loop and port.

4  
5   **Q.   Why should switched access revenues be included?**

6   A.   The switch is used in providing local, toll and access services. Since switching costs are  
7       included in the forward looking cost computations, it is appropriate to include the offsetting  
8       revenues related to these costs. For example, a portion of the cost of the port is typically  
9       recovered through the per minute switching rate paid by toll carriers. Accordingly, revenues  
10      associated with end office switching should be included in a revenue benchmark which is  
11      compared to cost results which include local switching costs.

12  
13   **Q.   What about toll revenues?**

14   A.   A similar principle applies. A substantial portion of the toll revenues received by local  
15       exchange carriers recovers loop and switching costs—just like switched access service. A  
16       portion of toll revenues should be included in a revenue benchmark for the same reason a  
17       portion of switched access revenues should be included. In fact, these two categories are  
18       closely related, and the calculations should maintain consistency between the two categories.  
19       At the risk of oversimplifying, the principle is straightforward: with regard to any particular  
20       long distance phone call, the same dollar amount of loop and port related revenues should  
21       be included in the benchmark calculations, regardless of whether revenues from the call are  
22       booked in the LEC's toll category, or its switched access category.

23  
24   **Q.   Are there any other revenues that could be included?**

1 A. Yes. The benchmark could also include a portion of ancillary revenues that are generated  
2 by LECs, as a result of their provisioning of local telephone service. Two prominent  
3 examples are revenues from directory publishing and inside wire maintenance service.  
4 Consider directory publishing revenues. The incumbent local exchange carriers earn very  
5 substantial revenues (and profits) from yellow page advertising. These rates vary directly  
6 with the number of subscribers included in (and receiving) the directory. As additional  
7 customers are added to the network, directory publishing revenues and profits will expand.  
8 These revenues are particularly large in urban areas, where yellow page advertising  
9 generates enormous profits for incumbent LECs. Similarly, many carriers generate  
10 substantial revenues and profits from inside wire maintenance. Carriers ability to generate  
11 these revenues is directly related to the fact that they provide the customers' access line.

12

13 **Q. Can you outline an approach which could be used if the Commission decides to**  
14 **adopt a revenue benchmark for the Idaho USF?**

15 A. Average revenue levels would be developed for each rate group in Idaho. Basic local  
16 service revenues would be estimated by multiplying each of US West and GTE's local rates  
17 by the number of lines to which this rate applies. Also included would be revenues from  
18 other sources, including the FCC End User charge, touch tone, toll switched access,  
19 directory publishing, custom calling, Caller ID, directory publishing, inside wire maintenance,  
20 and the like.

21

22 **Q. What level of revenue disaggregation would be needed in order to fully analyze the**  
23 **revenue benchmark concept?**

24 A. Preferably, carriers would be required to provide revenue data at the highest level of detail  
25 which could potentially be useful in revising and administering the IUSF. For example, if the

1 Commission were considering the possibility of calculating support amounts separately for  
2 each individual wire center, it would be useful to gather revenue data at this same level of  
3 detail, even though the benchmark might reflect a substantial degree of averaging. Revenues  
4 from some services (e.g. custom calling) may be lower in rural areas than in urban areas, due  
5 to differences in demand characteristics and/or income levels. Similarly, revenues  
6 attributable to switched access and toll services may be higher in rural areas, due to their  
7 higher costs and more limited local calling scopes. By requiring revenue data for each wire  
8 center and/or exchange, the Commission would obtain a clearer picture of the revenues  
9 which are available to carriers from sources other than the IUSF. In turn, this information  
10 can be useful in analyzing the extent to which high cost areas generate adequate revenues to  
11 cover their costs without USF support, and the extent to which a shortfall exists which could  
12 be remedied through state and federal USF mechanisms.

13  
14 **Q. Is the Staff planning on gathering data and presenting detailed calculations for a**  
15 **revenue benchmark in this proceeding?**

16 A. No. I recommend using a cost benchmark instead. The FCC ultimately selected a cost  
17 benchmark, and I see no need to calculate the IUSF using an entirely different approach.

18  
19 **Cost Benchmark**

20  
21 **Q. Why does the Staff feel it would be reasonable to use a cost benchmark in**  
22 **administering the IUSF?**

23 A. It creates consistency between the method used in identifying high cost areas and the  
24 method used in developing the benchmark, and it is consistent with the method the FCC has  
25 adopted for the federal USF. Moreover, it provides the Commission with greater flexibility

1 in balancing the interests of urban and rural Idahoans. The portion of the high cost burden  
2 which will be borne by all Idahoans (through the IUSF) and the portion which will be borne  
3 by carriers and customers in high cost areas can be readily specified by the Commission  
4 when using a cost benchmark.

5  
6 **Q. Can you be more specific about the direction the FCC is heading regarding the cost  
7 benchmark?**

8 A. Yes. Initially the FCC planned to use a revenue benchmark. The FCC reasoned that a  
9 revenue benchmark was appropriate because, among other things, it would include revenues  
10 from discretionary (non-supported) services, and these revenues should, and do, contribute  
11 to the joint and common costs of providing the supported services. [See, First Report and  
12 Order, 12 FCC Rcd at 8920-21, paras. 260-262].

13  
14 However, the FCC now believes;

15  
16 ...that the use of a revenue benchmark is becoming an  
17 administratively unworkable approach, given that carriers may now  
18 be bundling the supported services with services that are not  
19 provided on the supported network, such as long distance services,  
20 wireless services, and Internet access services. [Seventh Report &  
21 Order, Footnote 157].  
22

23 The FCC also stated that it agreed with the Joint Board that a cost-based benchmark  
24 provides a better gauge with which to identify areas in need of support to enable reasonably  
25 comparable rates than would a revenue benchmark, and that contrary to the assertions of  
26 some commenters, “revenues may not accurately reflect the level of need for support to

1 enable reasonably comparable rates because states have varying rate-setting methods and  
2 goals”. [Id., ¶ 62].

3  
4 **Q. A cost benchmark reflects “average” costs. For the Federal USF the FCC used the**  
5 **nationwide average level of costs generated by the FCC model for non-rural**  
6 **carriers. What degree of averaging should be used in this proceeding?**

7 A. Staff believes the cost benchmark should be based upon Idaho statewide average costs,  
8 including all high and low cost areas. Since the fund will not immediately apply to rural  
9 LECs, some might argue that it would be appropriate to calculate a statewide average which  
10 is limited to US West and GTE. However, Staff believes that the benchmark should be  
11 based upon a true statewide average, incorporating all high and low cost areas. To achieve  
12 this, it is necessary to include a reasonable estimate of the costs of serving areas served by  
13 the independents in calculating the benchmark.

14  
15 **Q. You indicated that the cost benchmark should “reflect” average costs. Could the**  
16 **benchmark differ from the average itself?**

17 A. Yes. There are several ways a cost benchmark could be implemented. Potentially, the  
18 Commission could set the benchmark equal to the average cost level, thereby funding all  
19 locations where costs exceed the statewide average. Another possibility is for the  
20 Commission to establish a benchmark which exceeds the statewide average by some  
21 defined percentage. This is similar to the approach adopted at the federal level. In the  
22 October 21, 1999 Methodology Order, the FCC decided to set the cost benchmark at  
23 135% of the national average. The FCC explains:

24

1           Because affordability is closely tied to local rate levels, established  
2           and regulated by the states, we conclude that states are well-  
3           positioned to adopt local rate structures and intrastate universal  
4           service support mechanisms that maintain affordable and reasonably  
5           comparable rates on a statewide basis. Federal mechanisms, in  
6           contrast, will assure that these goals are met nationally by providing  
7           support to those states where the cost of providing the supported  
8           services substantially exceed the national average. [May 27, 1999  
9           Order, ¶ 57. Emphasis added].  
10

11           If the Commission were to follow a similar approach, it might establish a cost benchmark for  
12           the IUSF which exceeds the statewide average cost per line by a specified percentage. The  
13           difference could be 35%, or it could be a lesser or greater percentage. For instance, after  
14           hearing parties advocate both higher and lower percentage figures, the Kansas Corporation  
15           Commission ultimately selected a benchmark equal to 125% of the average level of costs in  
16           their state.  
17

18   **Q.    Is there any reason why the Commission must follow the FCC's lead, and set the**  
19   **benchmark at 135% of the statewide average?**

20   **A.**    No. The appropriate percentage is a policy decision for the Commission to determine. The  
21           effect of varying this percentage figure is straightforward: with a higher benchmark, the IUSF  
22           will be smaller, with a lower benchmark the IUSF will be larger, holding everything else  
23           constant. While 135% have may been in the federal jurisdiction, and 125% may have been  
24           appropriate in Kansas, the more appropriate figure in Idaho could be different from either of  
25           these examples.

26           There is no requirement that the Commission use the same figure as the FCC. For  
27           one thing, the percentage figure that is selected by the Commission will be applied to  
28           average Idaho costs, rather than national costs. There are differences between the Idaho

1 average costs which will be used in setting the IUSF benchmark and the national average  
2 costs that the FCC has relied upon in developing the cost-based Federal USF program. For  
3 example, the FCC's national benchmark is based upon the average costs incurred by the  
4 largest LECs only. As such, it excludes most of the LEC's that predominantly serve high  
5 cost areas. In Idaho the FCC's average excludes GTE and every other LEC except US  
6 West. Idaho appears to be a state with costs which are only moderately above the national  
7 average in the FCC's limited view of the situation. In reality, Idaho has many high cost  
8 areas, and its true average is much higher than the US West-only figure that is reflected in  
9 the FCC's calculations. The overall average for Idaho (including GTE and other LEC's that  
10 serve most of the high cost areas) is substantially higher than the FCC's national average  
11 cost per line of \$23.35.

12 Applying a factor of 135% to the national average for large LECs, the FCC arrived  
13 at a national cost benchmark of \$31.52. If the Commission were to apply the same 135%  
14 factor to the average cost of all LECs in Idaho, the result will be a much higher  
15 benchmark—probably in excess of \$45.00 (the exact figure depends upon the specific inputs  
16 used in the model). Whether or not a benchmark at this level would be appropriate for the  
17 IUSF is a policy matter for the Commission to decide.

18  
19 **Q. What are the policy implications of applying a higher or lower percentage figure?**

20 A. If the Commission wants to limit the support flowing from urban Idaho to rural Idaho and if it  
21 wants to ensure that support is narrowly targeted at the areas with the most extreme cost  
22 conditions, it should use a relatively high percentage figure. By selecting a higher percentage  
23 figure the Commission can focus the funding support more narrowly on those wire centers  
24 and customers facing truly extraordinary cost conditions, and thereby limit the size of the  
25 IUSF.

1           In contrast, if the Commission wants to ensure a much broader flow of support by  
2           expanding the number of recipients to include those facing less extreme cost conditions, it  
3           should use a lower percentage figure. For example, if the Commission were to use a figure  
4           of 100%, it would ensure that every wire center with costs above the statewide average will  
5           receive support, even if the costs are only slightly above that average.

6           As I mentioned a moment ago, the Kansas Corporation Commission decided to  
7           follow a middle course, limiting the flow of support from urban to rural Kansas, while still  
8           ensuring that support was available to every wire center with costs that were at least 25%  
9           above the state average. I illustrate the impact of differing percentage figures in Exhibit 101,  
10          Schedule 2, which I discuss later in my testimony.

11  
12   **Q.    How does the benchmark relate to the cost inputs which are used in running the**  
13   **model?**

14   A.    With a revenue benchmark, there is no relationship between the inputs and the benchmark.  
15   As a result, there is a direct relationship between the costs which are generated by a given  
16   set of inputs and the size of the fund which results from those inputs. A \$1 per line increase  
17   in costs will result in a \$1 per line increase in the fund.

18           With a cost benchmark, the linkage between cost results and fund results is  
19   weakened and/or reversed. For instance, in selecting between inputs advocated by two  
20   different parties, the input preferred by one party might increase costs by \$1 per line, relative  
21   to the input preferred by another party. However, if the resulting difference in costs applies  
22   to both urban and rural areas throughout the state, the resulting across the board difference  
23   in costs per line might have little or no effect on the fund. This follows directly from the fact  
24   that the cost in each area, and benchmark itself (which is based upon average cost) will both  
25   increase when the input is changed. If the Commission decides to only fund costs that

1 exceed a specified percentage above average cost, such as the 135% factor adopted by the  
2 FCC, the linkage between inputs and fund size will tend to be reversed. An across the  
3 board \$1 per line increase in costs will translate into a benchmark that is \$1.35 higher, and  
4 thus the size of the fund will tend to decline by \$.35 per line.

5 Consider this example. Assume the average cost per line is \$30, and the  
6 Commission decides to fund costs in excess of 135% of the average. Therefore the  
7 benchmark is \$40.50. For simplicity, consider a carrier that only serves one wire center,  
8 with costs of \$50 per line. This carrier would receive support of \$9.50 per line. If a model  
9 input is changed, and as a result modeled costs were to increase by \$1.00 per line  
10 throughout the state, average costs would increase to \$31 and the benchmark would  
11 increase to \$41.85, while this particular carrier's costs would increase to \$51. As a result of  
12 this \$1 increase in modeled costs, Carrier A would receive just \$9.15 per line. The \$.35  
13 reduction in support per line corresponds directly to 35% of the \$1 per line increase in  
14 modeled cost.

15  
16 **Q. You indicate that the size of the fund and degree of targeting can be controlled**  
17 **through the percentage figure that is used in setting the benchmark. Does the**  
18 **Commission also have some discretion in what fraction of the costs in excess of the**  
19 **benchmark should be supported by the IUSF?**

20 A. Yes. There is no requirement that the fund support the entire difference between the  
21 benchmark and the modeled level of cost in each area. To the contrary, there are good  
22 reasons to provide support for only a fraction of this difference. As explained by the FCC, a  
23 portion of these high costs are already recovered through interstate access charges.  
24 [Methodology Order, ¶ 63]. The FCC explains:  
25

1           Our current separations rules allow carriers to recover 25 percent of their  
2           book loop costs through interstate rates. Carriers also recover 15 percent of  
3           their book port costs, on average, through interstate rates, and 100 percent  
4           of their LNP costs through the federal LNP cost recovery mechanism”.  
5           [Id.]  
6

7           Based on the intrastate portion of each of these items, the FCC concluded that interstate  
8           access charges already compensate for 24% of the high costs that are incurred by local  
9           exchange carriers. To avoid redundancy with federal support provided through federal  
10          access charges, the FCC decided that the federal USF mechanism should only provide  
11          support for the remaining 76% of the forward-looking costs (and only to the extent these  
12          costs exceed the national benchmark on a statewide service area basis). [Id.]

13           By this same reasoning, the Kansas Corporation Commission decided that its state  
14          USF would pay just 76% of modeled costs in excess of the benchmark. However, the  
15          Commission might conclude that a substantially lower percentage of support would be  
16          appropriate in the present context. In Kansas, intrastate switched access charges are  
17          regulated, and they have been reduced to a relatively low level. In contrast, switched access  
18          rates in Idaho are not regulated by this Commission, and they remain at relatively high levels.  
19          Revenues from this service undoubtedly make a very substantial contribution towards the  
20          high costs that carriers incur when serving rural, low density areas. Since these rates are not  
21          regulated by the Commission, it would be reasonable to treat them in a similar manner to  
22          federal access charges—by reducing the percentage of costs supported by the Idaho USF,  
23          thereby avoiding a double recovery problem.

24           Similarly, it would not be unreasonable for the Commission to conclude that the high  
25          costs of transport should primarily be funded through intrastate access charges, or to expect  
26          the carriers and customers in high cost areas to continue to absorb some of the intrastate  
27          loop costs that exceed the benchmark.

1           The 1996 Federal Act does not require uniform rates throughout the country or each  
2 state. It merely requires rates that are “reasonably comparable”. For illustrative purposes, I  
3 have developed calculations that assume that just 60% of the costs in excess of the  
4 benchmark will be supported by the IUSF; the other 40% is assumed to be supported by  
5 state and federal access charges. If a lower percentage figure were adopted by the  
6 Commission, it would tend to have the effect of requiring carriers and customers in rural  
7 areas to bear a portion of the high costs of serving these areas.

8  
9     **Q.     Would it be appropriate for carriers and customers in high cost areas to bear some**  
10 **of the high cost burden?**

11     A.     The Commission certainly has the freedom to achieve this result, if it concludes that this  
12 would be appropriate. I agree with the Joint Board’s position that “reasonably comparable”  
13 only requires “a fair range of urban and rural rates”. [Second Recommended Decision, ¶  
14 15]. Under this interpretation, there is room for modest rate differences between low and  
15 high cost areas.

16           In deciding the appropriate balance between rural and urban rates, the Commission  
17 should keep in mind differences in calling scope. Some customers in high cost areas adjacent  
18 to urban areas enjoy the benefit of large local calling areas. In this situation, it would certainly  
19 seem reasonable for them to pay somewhat more than the urban customers that enjoy the  
20 same calling scope but are located in low cost areas. In contrast, some rural customers are  
21 provided with a very small local calling area. While the Commission might conclude that they  
22 should pay somewhat higher rates, in recognition of the higher cost of serving them, the rates  
23 should still be reasonable relative to the scope of the service being provided.

24           In general, the Commission must decide to what extent customers in high cost areas  
25 should pay those high costs, and to what extent they should be paid by all customers,

1 including those in low cost areas. Although the Commission has some flexibility in resolving  
2 this issue, it does not have unlimited discretion. The rates in rural areas must remain  
3 reasonably comparable to rates in urban areas. While rates need not be identical, they must  
4 remain within a reasonable range. For example, if rates in rural areas were twice the rates in  
5 urban areas this would not be a “fair range” or “reasonably comparable.”  
6

7 **Q. Do toll carriers also contribute to the cost of connecting to customers in high cost**  
8 **wire centers?**

9 A. Yes. Switched access rates in Idaho are not regulated by this Commission, and thus it is  
10 difficult to evaluate the extent to which these rates are supporting the high cost areas in the  
11 state. However, it is readily apparent that toll carriers are currently contributing towards the  
12 high cost of serving rural areas through the relatively high access charges they pay to the  
13 incumbent LECs in both rural and urban parts of the state.

14 In general, intrastate access charges in Idaho are higher than interstate charges.  
15 Since the underlying costs are relatively similar, it is apparent that a major reason for this  
16 discrepancy is that historically, access rates in Idaho were designed to help pay the high cost  
17 of serving the low density, rural parts of the state. These relatively high rates place some of  
18 the high cost burden on the toll carriers and their customers. To the extent the same toll rates  
19 are charged throughout the state, the effect of this policy is to spread these costs well  
20 beyond the areas experiencing the high cost.  
21

22 **Q. Should carriers receive funding for every one of their wire centers in which costs**  
23 **exceed the benchmark?**

24 A. Not necessarily. For administrative convenience, the Commission could set a minimum  
25 support level before IUSF funding will be provided. Consider a wire center with 500 lines,

1           with costs that exceed the benchmark by just 10 cents per month. Although the carrier  
2           would receive support of 10 cents per line, this would amount to just \$50 per month.  
3           Clearly, this minimal level of funding does not justify the administrative burdens associated  
4           with calculating and disbursing such a small payment. Even with somewhat higher funding  
5           levels, the administrative burden might be out of proportion to the funding being  
6           provided—particularly when one considers the need for the carrier to track and report the  
7           number of supported lines in each wire center. Accordingly, it would be reasonable for the  
8           Commission to limit IUSF payments to wire centers where the payments are anticipated to  
9           exceed a reasonable minimum level (e.g. \$500 per month per wire center).