

1           **Universal Service Funding and Competitive Issues**

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3           **Q.     Should a Universal Service policy be competitively neutral?**

4           A.     Yes. I believe that the Commission should strive to develop policies that are designed  
5                   to encourage all carriers to participate in helping achieve Universal Service. This goal is  
6                   so important, it should not be left to the incumbent LECs alone. Furthermore, if high  
7                   cost funds or other policies are limited to the incumbent carriers, the risk exists that  
8                   these policies will inhibit the competitive process, or skew that process to the advantage  
9                   of one type of competitor.

10                         Competitive neutrality is desirable not only because it is fair, and will minimize  
11                         unintended consequences, but also because it gives a Universal Service plan the longest  
12                         assured life. A plan that favors or disadvantages certain players is likely to become  
13                         politically vulnerable in time, and there is always a danger, when these players press for  
14                         reform, that the baby will exit with the bath.

15                         Accordingly, contributions to a high cost fund or other Universal Service  
16                         program should be derived on a very broad base, including all competing carriers, to  
17                         the extent feasible. Similarly, the funds should flow to any carrier that is helping to  
18                         maintain Universal Service, based upon competitively neutral criteria. For instance, if a  
19                         cable TV company offers telephone service to residential customers in a rural area, it  
20                         would be appropriate for it to have as much opportunity to receive Universal Service  
21                         funding support as the incumbent LEC in that area. In other words, the fund should not  
22                         be tailored for the exclusive benefit of the incumbent LECs.

23

24           **Q.     How should the mechanics of support be structured?**

25           A.     There are a variety of possible methods. One is to invite carriers to bid for the right to  
26                   provide service to particular market segments (e.g. high cost areas or low income  
27                   groups). Probably the administratively simplest method would be via quasi-vouchers:  
28                   the carrier provides discounts to qualifying subscribers, and is reimbursed by the Fund.

1 I have no particular preference other than the requirements of efficiency of  
2 administration and the like.

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4 **Cost /Revenue Comparisons**

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6 **Q. You have provided the Commission with three different ways of analyzing the**  
7 **relationship between revenues and costs. What light do these analyses shed on**  
8 **the central focus of this proceeding--the appropriate policy to follow in**  
9 **advancing and maintaining the Universal Service goal in an increasingly**  
10 **competitive environment?**

11 A. As I said earlier in my testimony, in determining the cost of achieving maximum  
12 participation in a specific area--and thus in arriving at the appropriate policies to  
13 achieve the Universal Service goal--one needs to focus on the households within the  
14 study area that would not be served in the absence of the policies in question. In other  
15 words, attention needs to be focused on the marginal customers that will be added to  
16 the core customer base as the Universal Service goal is advanced. The per-customer  
17 cost of adding these households--and thus of achieving Universal Service in the area--  
18 needs to be compared to the per-customer revenues that the carrier will receive.

19 In market segments and locations where these incremental revenues fall short of  
20 the incremental costs, there is reason to be concerned. In these instances, the carrier  
21 will not have a financial incentive to sign up marginal customers. Also, competitive  
22 carriers may avoid serving certain locations or customer groups entirely, if this will  
23 allow them to avoid the shortfall. If some carriers are required to serve the high cost  
24 locations (e.g. as a carrier of last resort) while competitive carriers can opt out of these  
25 areas, the carrier having this responsibility can rightfully argue that it experiences a  
26 burden that isn't shared by the competitors. The magnitude of this burden, if any, can  
27 most appropriately be measured through the type of analyses shown in pages 1 through  
28 6.

1                   In this regard, it is helpful to recognize the distinction between cost allocations  
2                   and cost recovery. In preparing an incremental cost study, it isn't appropriate to  
3                   allocate 100% of the loop costs to Basic Universal Service, anymore than it would be  
4                   appropriate to allocate all of these costs to one of the other services that use the loop.  
5                   However, even though loop costs shouldn't be allocated to a specific service that uses  
6                   the loop, it must be understood that carriers will often seek to recover these costs from  
7                   the cluster of services that are directly attributable to the specific customer connected to  
8                   each loop. Normally, this result can be readily achieved over time, as the customer  
9                   places and receives toll calls, purchases a variety of different discretionary services, and  
10                  pays the monthly fee for the components of Basic Universal Service. However, the data  
11                  shown in pages 1 through 6 consistently show that the revenue-to-cost relationship is  
12                  more favorable in the low and average cost wire centers. In the high cost wire centers,  
13                  the margin of revenues over cost is not as wide as in the average or low cost locations,  
14                  and in some instances a shortfall exists.

15                  Accordingly, this data refutes the theory that is sometimes advanced that  
16                  residential customers are not profitable, or that all residential customers are being  
17                  subsidized by business customers. To the contrary, the vast majority of residential  
18                  customers generate revenues that are more than sufficient to cover the incremental  
19                  costs that are incurred as a result of their presence on the network. However, this is not  
20                  to suggest that competitive processes alone will be sufficient to achieve the goal of  
21                  Universal Service. To the contrary, there are "market failures" and other reasons to  
22                  anticipate that Universal Service will not automatically be achieved in a competitive  
23                  market, and thus some form of regulatory intervention would be appropriate.

24                  For example, in an unregulated competitive environment, carriers may attempt  
25                  to raise prices in high cost locations sufficiently to recover the full level of incremental  
26                  costs that will be incurred as marginal customers are added to the network. If this is  
27                  occurs, prices may rise beyond the level of affordability for many customers. As more

1 and more customers are discouraged from buying service, the Universal Service goal  
2 will recede farther and farther from reality.

3 As the Commission has acknowledged, the value of telephone service is in part  
4 a function of network participation, noting that “the value of telecommunications service  
5 is directly related to the number of persons who can access and use the system: the  
6 more people on the system, the greater the value of telephone service.” Pennsylvania  
7 Bulletin v. 5., at 3180. Clearly, pricing and regulatory policies designed to advance  
8 towards Universal Service have beneficial effects for society, raising the value of the  
9 network for everyone. However, much of this value is “external” to the individual  
10 customer or carrier. In a competitive environment, these external benefits, or “positive  
11 externalities” will not be adequately considered in decision making by the individual  
12 carriers and customers. In the absence of special regulatory policies designed to  
13 achieve the Universal Service goal, the carriers do not have sufficient incentive to  
14 advance all the way to the Universal Service goal. They may opt for profit-  
15 maximization, rather than maximization of the rate of network participation.

16 For instance, due to the relative absence of competitive pressures in rural areas,  
17 the incumbent carrier may use its pricing flexibility to raise basic rates in rural areas.  
18 Such a pricing policy would run counter to the Universal Service goal. Because of their  
19 smaller local calling scopes, many rural customers may be unwilling to pay high rates. If  
20 the goal is to have nearly everyone in the state connected to the public switched  
21 network, a *laissez faire* approach will not suffice. Carriers will have financial incentives  
22 to charge relatively high rates to customers in the high cost locations, and as a result  
23 relatively few customers will purchase service in these areas.

24 Similarly, carriers may make little effort to sign up low income customers, and  
25 those people who don't greatly value telephone service. Efforts to connect these  
26 marginal customers to the network will fall short of the Universal Service goal, if they  
27 are perceived by carriers as being not an especially profitable market segment (e.g. due  
28 to problems with uncollectible bills, or an inability to purchase high volumes of high-

1 margin discretionary services like custom calling). Just as prices are sometimes higher  
2 and alternatives fewer in low income neighborhoods, there is reason to be concerned  
3 that competitive carriers will not aggressively expand into low income areas, if they  
4 believe that profit margins will not be as high in these locations. To some degree, this  
5 problem could be overcome through regulatory policies designed to help advance the  
6 goal of Universal Service. However, the effect of these policies on smaller carriers will  
7 depend upon how they are structured. For instance, a policy that requires local  
8 exchange carriers to serve an entire exchange may appear attractive, but will not  
9 necessarily be successful. In fact, such a policy could create undesirable barriers to  
10 entry by competitive carriers, if it is perceived to be too burdensome. Smaller carriers  
11 may refuse to enter an entire exchange, if the low income neighborhoods are large, and  
12 the burden of serving them is perceived to be too great. In contrast, if everyone in the  
13 industry is required to pay into a fund for low income customers, and all carriers are  
14 eligible to benefit from this fund if they serve low income customers, the problem may  
15 be solved quite effectively, by changing the marginal profitability of this market segment.

16  
17 **Q. Is the maintenance of reasonable rate continuity also relevant to these issues?**

18 A. Yes. Another longstanding principle of ratemaking is that customers not be exposed to  
19 sudden and extreme increases in rates, particularly if the increases are unrelated to  
20 improvements in service quality or expansions in service offerings, and even more  
21 particularly if no reasonable substitute for the service is readily available. Otherwise, the  
22 abrupt nature of these increases may cause subscribers to drop off the system, to the  
23 detriment of Universal Service and society in general. For equitable and other reasons,  
24 regulatory commissions have often found that “rate shock” should be avoided, or  
25 minimized. Where customers do not have other viable options (e.g., where effective  
26 competition does not exist), extreme or abrupt rate increases are not appropriate or  
27 desirable. Substantially increasing rates in high cost areas would violate the rate  
28 continuity principle.

