

Issue 6. Universal Service

Q. How do you define “universal service”?

A. Universal service will be realized when nearly everyone is connected to the public switched telephone network, regardless of how low their income, or how little they value telephone service. Universal service is considered a desirable goal, since it facilitates the free flow of communications within society. This benefits everyone--including the people who would otherwise not have a telephone, as well as everyone who needs to communicate with them.

Q. How important is the goal of universal service?

A. It is very important. But it sometimes gets less attention than it deserves. Because of the rapid changes taking place in the telecommunications industry--including increased competition, deregulation, and changing federal policies--many state regulators are hard pressed to balance the goal of universal service with other policy objectives. Even so, it should never be forgotten that from the standpoint of value of service, as well as in acknowledgment of the positive externalities involved, society, ratepayers, and telecommunication carriers all benefit when nearly everyone participates on a universal, fully interconnected telephone network.

There is no inherent conflict between the goal of universal service, and the idea of opening the local telephone markets to competition--provided that all carriers are required to interconnect with each other on reasonable terms and conditions. In other words, nearly everyone can be connected to a universal public switched network, yet portions of that overall network may be owned and operated by competing firms. Stated differently, a global network of interconnected networks can achieve the goal of universal service just as effectively as a smaller group of monopoly networks. However, individual customers and carriers do not necessarily have the incentive to advance the goal of universal service. For instance, incumbent carriers may seek to discourage entry by competitors by making it difficult, or unduly costly for the newer firms to interconnect with, or utilize portions of, the established firm's network. Accordingly, the Commission should establish appropriate policies to ensure that all of the networks are

interconnected and compatible with each other, and to encourage every business and every household to connect to this network of networks.

Q. Please explain what you mean by the “positive externalities” associated with universal service?

A. The provision of telephone service (particularly the connection of individual subscribers to the telephone network) involves significant benefits that are not recognized by the individual consumers who sign up for the service. In other words, they involve what economists refer to as "positive externalities."

For instance, numerous individuals benefit when a new customer joins the system, because the value of having a telephone increases as the number of subscribers rises. (If none of your friends, relatives, and/or business associates were connected to the telephone system, you would place little value on having telephone service for yourself) Moreover, society as a whole benefits from the flow of communication facilitated by universally available telephone service.

In essence, since a ubiquitous telephone infrastructure is important to economic growth and development, economic theory suggests that the price of connecting to the system should be maintained at a relatively low level, to ensure that nearly everyone will connect--including those with very low incomes, those who rarely use the phone, and those who don't value phone service very highly. Positive externalities are an important consideration in shaping regulatory policy, and they should not be ignored in favor of a narrow calculation of incremental costs and revenues.

Historically, a wide variety of different policies have been adopted by regulators and carriers to advance the goal of universal service. These policies include lifeline programs, cross-industry cost sharing and rate structures that are designed to encourage maximum levels of participation in the network.

Q. What is a Lifeline program?

A. Lifeline programs reduce the costs of basic service for low-income subscribers. Typically, participating local exchange carriers will reduce recurring monthly local telephone bills for qualifying customers by either half the amount of the federal subscriber line charge (S.L.C.) or up to the full amount, depending on the option chosen by the state. Half the reduction is reimbursed the carrier by the National Exchange Carrier Association (NECA) through funds supplied by long distance carriers like CommuniGroup (billed by NECA, similar to a tax). The other half is matching state funds, which may be provided in a variety of forms--reduced local rates, reduced connection charges, or reduced deposit requirements. In order to receive the larger reduction, subscribers must meet federal as well as state qualification standards (e.g., food stamp, AFDC, SSI, or medical assistance (Medicaid) eligibility). According to a recent FCC report, as of 1994, only California still offered the lesser reduction option; thirty-eight other states provided high option lifeline assistance to subscribers of at least some of their LECs. Assistance was provided in 36% of study areas (511 of 1,438) to more than 4.4 million households, of which more than 2.5 million (57%) were in California. The national distribution of federal funds (from IXCs via NECA) was \$123.4 million, of which just under \$52.5 million (43%) was paid to LECs in California. Nationally, in the states and territories excluding California, the average reduction in customer expense through lifeline programs is $\$37.59 \times 2 = \$75.18 / 12 = \$6.27$ per month. (Data from Table 2.3, FCC Monitoring Report 1995.) South Central Bell of Mississippi has participated in the program for the past five years.

Q. What is Link-Up America?

A. Link-Up America is a related lifeline program for reducing the start-up costs of telephone service for low-income new subscribers. Federal assistance is available to pay one-half the connection charge, up to \$30, for low-income households. Federal assistance will also pay market rate interest on time-payments (for up to 12 months) allowed by a LEC to low-income new subscribers, up to a \$200 maximum principal amount. Eligibility requirements vary by state. In 1994, all states except Delaware, as well as Puerto Rico, the Virgin Islands, and the District of

Columbia, had Link-Up America programs in at least some study areas. The Mississippi PSC established this state's program in April 1988.

Q. Is there any inherent incompatibility between lifeline programs and competition?

A. No. However, some modifications to the programs may be appropriate or necessary, as the industry evolves towards increased competition. For instance, funding for these programs currently comes primarily from the long distance carriers. Competing carriers, such as the cellular firms and the Bell Operating Companies, are largely exempt from participation in the funding of these programs. As the scope of competition increases, it will be appropriate to expand the scope of the funding mechanisms, and make other adjustments to ensure that these programs become competitively neutral.

Q. Assuming Mississippi's participation in these programs is continued, in what other ways can universal service be encouraged?

A. A state Universal Service Fund is one obvious possibility. Support can readily be targeted at high-cost areas, low-income areas, or both. The rationales are different but complementary. Support for high-cost areas can be a way of sustaining high levels of network participation and relatively low rates in areas where service costs diverge greatly from the statewide average.

At the federal level, for instance, the FCC realized that special efforts were needed to encourage universal service in high cost areas such as rural Alaska. In the absence of special programs, the revenue requirements, and local rates, in these areas would potentially be so high that few people would consider them affordable. To overcome this problem, the FCC has developed a variety of different policies that are designed to provide financial support to carriers in these high cost, rural areas, thereby allowing them to charge rates that are about the same as (or even lower than) the nationwide average, despite the high cost conditions that they face. As with lifeline programs, the funding for these efforts primarily comes from the interstate long distance carriers. IntraLATA carriers like Bell South have largely been exempt from providing support for these programs.

Most local exchange firms engage in widespread cost averaging that allows customers to pay relatively similar rates regardless of whether the cost of serving them is relatively high or low. As the market evolves toward greater competition, there is reason to anticipate that these firms will seek to “rebalance” and deaverage their rates, thereby eroding this important source of support for the universal service goal.

It is important to recognize that costs vary widely, and absent regulatory policies designed to overcome this problem, penetration rates will tend to decline, if rates are allowed to increase substantially in high cost areas. If these historic policies, designed to maintain statewide or nationwide rate averaging, are not maintained, they should be replaced, or supplemented with policies that are specifically tailored for an increasingly competitive market. For instance, a statewide high-cost fund could be used to offset some of the high costs of serving low density areas, thereby helping bring total revenues in line with total costs in these areas, and avoiding a vicious double spiral of increasing rates and decreasing participation in rural areas.

Properly designed, a high cost fund can also ensure the less populated areas have a fair chance at receiving some of the benefits of competition, since competitive carriers may be willing to enter high-cost markets, if they are eligible for the same programs that are designed to support the incumbent carrier. This support can be provided in a competitively neutral manner to customers in the high cost area (e.g. through vouchers that are used to help pay the monthly phone bill), or to the carriers that serve these customers.

If maintaining or improving the statewide penetration rate were the sole consideration, funding would be channeled largely if not exclusively into the low income urban segment, since the per-customer cost of efficacious urban subsidies is much lower than that of rural subsidies. That is, the marginal cost of providing dialtone service in an urban area like Jackson is probably only a minor fraction of the marginal cost of providing the same service in a county in the delta. It would therefore be possible to add several urban subscribers to the network for the cost of adding one rural subscriber. However, such a policy of simple numbers would conflict with the principle of equity--that universal service should be achieved throughout the state. Furthermore, in rural areas, the universal service goal is particularly important to society. In these low density, high cost areas,

society gains particularly large benefits when everyone participates on a common network, because other means of communication (e.g. driving long distances to speak in person) are even more costly than telephone service in these low density, relatively remote areas.

Accordingly, the Commission should be concerned with maintaining or increasing participation rates for both demographic market segments (e.g., targeted low income assistance) and geographic market segments (e.g., targeted high cost assistance). This is both the fairest, and the most prudent, course to pursue, and there is nothing inherently incompatible between such a policy and the introduction of competition into local telephone markets.

Q. You have implied that a universal service policy should be competitively neutral. Can you please elaborate on this issue?

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

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

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

Q. How can the mechanics of support be structured?

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

Q. How much will support of universal service cost?

A. To fully answer this question would require cost studies specific to Mississippi. Cost data my firm has examined in other jurisdictions suggest the existence of a revenue shortfall in some of the highest cost locations, and thus some level of targeted support may be needed, in order to continue to advance towards the universal service goal as the industry becomes less tightly regulated and more influenced by competitive processes. However, in most jurisdictions, there are relatively few wire centers where a substantial overall shortfall exists. Also, there are relatively few customers in each of these high cost wire centers. Thus, the total magnitude of the problem is relatively modest, when viewed from a statewide perspective. This is not to suggest that these customers are unimportant, or that the Commission should not be concerned about designing appropriate policies to keep customers in these high cost wire centers on the network. Rather, I am suggesting that such policies can potentially be implemented with a level of statewide funding, or a level of burden on the carrier, which is not especially large when viewed in the context of statewide revenues.