

# **Preserving and Advancing Universal Service**

**In a**

## **Competitive Environment**



A Report

to the

WASHINGTON STATE LEGISLATURE

Prepared by the

Washington Utilities and Transportation Commission

January, 1998

## TABLE OF CONTENTS

Executive Summary .....	1
Summary Recommendations .....	6
Introduction .....	11
The Federal Telecommunications Act of 1996 .....	15
Definition of Basic Services .....	25
Analysis of Potential Telecommunications Carriers .....	34
An Analysis of Cost Methodologies for Determining Universal Service Funding .....	40
Options for Generating and Disbursing Universal Service Funding .....	50
Appendix A: Public Interest Pay Phones .....	82

## ACKNOWLEDGMENTS

This report was prepared for the Commission by the telecommunications section of the Washington Utilities and Transportation Commission. Staff for the Washington Independent Telephone Association, AT&T, GTE, MCI, PTI, SPRINT/United, TRACER, U S WEST and the Public Counsel Section of the Office of Attorney General all participated in the process which led to this report. Pioneer Telephone Company, St. John Co-operative Telephone and Telegraph Company and U S WEST permitted staff to tour their facilities as part of the preparation of this report. The participation and assistance of these companies are appreciated by the Commission.

Members of the public also participated. In particular, the Commission appreciates the time given by the fifty members of the public who attended our public meeting in Coulee Dam.

The principal author of the report was Bob Shirley; his work was completed with the assistance of the entire telecommunications section under the direction of Glenn Blackmon, Assistant Director for Telecommunications. Their work and the support provided by other Commission staff are gratefully acknowledged.

Copies of this report are available from the WUTC Records Center, (360) 664-1234.

## EXECUTIVE SUMMARY

### Preserving and Advancing Universal Service in a Competitive Environment

Washington has a history of preserving and advancing universal telecommunications service. Approximately 97 percent of all Washington households have telephone service. The purpose of this report is to inform the Legislature about the manner in which universal service works today; what changes are needed, including statutory changes, in order to continue universal service as monopoly telephone companies are introduced to competition; and to make specific recommendations for policies which should be adopted to maintain and advance universal service in the new, competitive environment of telecommunications.

### The Report

This report is in response to 1997 legislation asking the Washington Utilities and Transportation Commission (WUTC) to inform the legislature on several key issues related to universal telecommunications service. The report was prepared with comments from industry representatives and from other interested parties. Staff visited telephone company facilities, including facilities in eastern Washington. The commissioners held a public hearing on basic telecommunications services and universal service in Coulee Dam. The recommendations in the report are those of the commission; there is little or no consensus on how to proceed among the many different types of

telecommunications companies, their customers and other interested parties.

### Universal Telecommunications Service

Universal telecommunications service has been a public policy in Washington State, and throughout the nation, for more than sixty years. The goal is to make access to the public telephone network available to all citizens at affordable prices. Washington State, with 97 percent of residents with telephone service, has, arguably, achieved universal service. It has done so while maintaining affordability. The cost of local, basic service is between \$10.00 and \$20.00 per month. With 97 percent participation, it is reasonable to assume that the basic rates are affordable.

### Competition in the Local Telephone Market and Its Benefits

Congress has acted to open up local telephone markets to competition. A major purpose of the Telecommunications Act of 1996 (TCA) is to open up local markets to competition and, once this is accomplished, to let the former Bell operating companies into the long-distance market from which they have been excluded since the divestiture of AT&T in the early 1980's.

The benefits of competition are well known. Customers will have more choices and will be more likely to receive the services they want. Competitors will continue to up-grade their infrastructure in order to provide new and better quality services. Prices will fall if margins have been excessive. Carriers will compete on

quality of service as well as price, giving consumers more for their money.

### Aid to Rural Development

An effective program of universal service which spurs telecommunications competition in rural areas will aid rural development efforts. Modern businesses need modern telecommunications technology. By supporting telecommunications service in high-cost areas, a universal service program will bring new technology and a diversity of services to rural areas. This can be achieved at the same time the fundamental purpose of a universal service program can be met--assuring access to the public telephone network at an affordable price.

### Universal Service, Subsidies and Competition

Universal service has depended on subsidies to maintain affordability. It cost more than \$20.00 per month to provide basic service in many areas of Washington State. In some very remote areas, the actual cost of providing service can be \$350.00 per month--an amount that is not affordable. In order to provide service to a high-cost location at an affordable price, it is necessary to support that service with money from a source other than the customer's \$20.00 per month payment. In Washington, we have used average pricing for decades to support the high-cost customer. Monopoly telecommunications providers have been permitted to charge an above-cost price in dense, urban areas in order to provide sufficient revenue to permit charging only the same average (and affordable) price to their customers in high-cost locations. In other circumstances, monopoly providers have been

permitted to charge other companies much higher than cost charges for routing telephone traffic over their lines. These charges, known as access charges, provide substantial revenue to small telephone companies that serve many high-cost customers. This revenue, along with other support, makes it possible to keep the basic monthly rate at an affordable level--between \$10.00 and \$20.00 dollars--even when the average cost of providing the basic monthly service may be \$40.00 to \$80.00 per month.

Competition, if it is to be fair and even, cannot work when one company has the benefit of subsidies and another company does not. A new competitor cannot expect to sign up customers if it has to charge \$50.00 per month for basic service while the incumbent, with a large base of low-cost customers in the city can still charge its rural customers only \$20.00 for service. The same incumbent with the advantage in the country, however, will be at a disadvantage in the city if it has to charge all of its customers in urban areas more than the cost of service in order to support the customers in rural areas. A new competitor in the city can price basic monthly service lower than the incumbent who must charge a little extra in order to keep the basic charge affordable for rural customers. Competition cannot be fair where there are financial supports available to one company and not to another.

### Achieving Fair Competition

The means to achieving fair competition is to replace the system of hidden subsidies to one of specific, predictable and sufficient supports for universal

service. Support to a few companies through price averaging or excess access revenue would have to end and be replaced by a universal service fund from which any company can draw based upon the number of high-cost customer locations it serves. The amount available for serving a particular high-cost customer would have to be the same no matter which company the customer chooses. If the support is available to any company willing to serve a customer in a high-cost location, and if it is sufficient when combined with customer revenue to cover the carrier's cost, then carriers can compete to provide local telephone service in rural, high-cost locations.

#### A New Universal Service Program with No New Costs

Universal service is provided in Washington today through a variety of implicit, or hidden, supports. A new universal service program can be established without increasing costs; payments which were provided through the old mechanisms can be directed to companies which serve high-cost customer locations through the new fund. A competitively and technologically neutral approach can be taken to build the fund and to govern disbursements from it.

#### Legislative Action

Under state statute and decisional law, the WUTC does not have authority to assess telephone companies for contributions to a universal service fund, the money from which would be returned to telephone companies which serve high-cost customer locations. In order to provide universal service and have competition in the local



telephone market, it will be necessary to pass legislation which gives the WUTC the necessary authority to develop a universal service fund. The commission has the authority to abandon the implicit supports which would be replaced by a specific, predictable and sufficient universal service fund.



Report Recommendations and Legislative Action

The following recommendations appear in the report. They respond to specific issues identified in the legislation which required this report. After each recommendation, any legislative action which is needed is identified.

1. **Recommendation: Washington should adopt the list of Federal Communications Commission basic services.** This recommendation responds to the legislature's request for a recommended definition of basic services. The basic services list adopted by the FCC corresponds to what is the standard, although not specifically defined up to this point, for basic services in Washington. Adopting this set of services will not lead to any reduction in present customer service, nor will it require increased costs on the part of telephone companies.

**Legislative Action:** The WUTC has the authority under RCW 80.36.140 to carry out this recommendation.

2. **Recommendation:** The Legislature and the Commission should not choose one technology over another as they develop policy. This will permit market forces to determine which technology or technologies will attract customers and the growth and profits which go with them.

**Legislative Action:** There are many new telecommunications technologies introduced to the market every day. It is important the legislation on universal service not favor one technology over another.

3. **Recommendation:** Washington should adopt a forward-looking cost methodology for determining the level of universal service support for non-rural carriers and use embedded costs for those rural carriers where it does not impede competition or introduction of new technology. The use of forward-looking economic costs will promote competitive entry, efficient investment and technological innovation. This methodology promotes the purposes of the Telecommunications Act of 1996, including increased competition, reduced regulation, lower prices and higher quality of service and the deployment of new technology.

**Legislative Action:** The Commission has authority to use forward-looking cost methodology for universal service.

4. **Recommendation:** Washington should require contributions from the same telecommunications carriers as the FCC, including private service providers which sell or lease capacity. This option provides the broadest list of providers without attempting to include internet service providers. We recommend inclusion of private service providers which sell or lease capacity. This capacity is made available in the same market where common carriers make available their services to the public. Private service providers contributing to the universal service support mechanisms will have no competitive edge over common carriers making the same contributions based on sales of identical services.

**Legislative Action:** The legislature must give the WUTC authority to create and operate a universal service fund if this recommendation is to be implemented.

5. **Recommendation:** Washington should base assessments for contributions to universal service on gross revenues net of payments to other carriers. This option is competitively neutral because all carriers, wholesale and retail, large, small or specialized, contribute on the same basis. It does not advantage vertically integrated companies. This option avoids double counting; contributions are required only when value is added and when activity on the telephone network is increased. It is easy to administer for large and small companies alike because carriers already collect the information necessary to make the calculations.

**Legislative Action:** The legislature must give the WUTC authority to create and

operate a universal service fund if this recommendation is to be implemented.

**6. Recommendation: Washington should support all telephone lines and determine support by subtracting average revenue per line from the cost of each line.** This recommendation supports the status quo. It will promote efficiency and increased deployment of new telecommunications services without disrupting the services already in place in households and businesses in Washington.

**Legislative Action:** The legislature must give the WUTC authority to create and operate a universal service fund if this recommendation is to be implemented.

**7. Recommendation: Washington should contract with a neutral, third-party for design, operation and administration of a universal service fund.** This should be accomplished through a competitive bid process which excludes interested parties.

**Legislative Action:** The WUTC needs statutory authority to contract for operation of the fund by a neutral, third party.

**8. Recommendation: Washington should not establish a public interest pay phone program.** There is no evidence at present that there is an insufficient number of pay phones or that pay phones necessary for public safety are lacking. The WUTC should track complaints, if any, regarding the lack of pay phone service and should work with local governments in helping them identify and

satisfy their public interest communications needs.

**Legislative Action:** No action is needed.



## INTRODUCTION

### Washington Has History of Supporting Universal Service

Preservation of universal service is not new policy in Washington. The Legislature enacted a policy to “preserve affordable universal telecommunications service” in 1985.<sup>1</sup> Much of the federal Telecommunications Act of 1996 mirrors the policy enacted in Washington more than ten years ago. In addition to preserving affordable universal service, our state’s policy is to advance efficiency and availability of telecommunications services; ensure that customers pay only reasonable charges; ensure that non-competitive telecommunications services do not subsidize the competitive services; promote diversity in the supply of services and products in the market; and permit flexible regulation of competitive telecommunications companies and services.<sup>2</sup> This report and recommendations, although addressing primarily the new federal law, will promote the twelve-year-old goals that guide Washington’s regulation and, increasingly, deregulation of telecommunications services.

### Universal Service Promotes Democracy, Commerce and Community

Preservation and advancement of universal service has been Washington’s policy for over a decade because it serves the interests of citizens and the state.<sup>3</sup> Public

---

<sup>1</sup> RCW 80.36.300

<sup>2</sup> Id.

<sup>3</sup> It was the state’s *de facto* policy to promote universal service long before enactment of RCW 80.36.300 in 1985.

health and safety are promoted by universal service. Safety, in particular, is promoted now that we have 911 and E911 services. Education is also promoted now that most students of all ages have quick access to all the knowledge the internet has to offer. Universal service also makes access to the network more valuable because each person can reach everyone on the system rather than a limited number of their fellow citizens. In this respect, universal service is a tool for promoting democracy. It also promotes commerce, for universal service permits us all to have access to a much greater marketplace than is even afforded by cars and good roads. Finally, in an era when people travel and relocate for work, universal service helps maintain family communication--preserving service to the high-cost customer who lives at the end of a remote road helps maintain the communication necessary to sustain family and community life.

### Preparation of Report

This report was prepared with the assistance of telecommunications providers, their institutional customers, representatives of state and local government and members of the public. Invitations were sent to over 500 people inviting them to attend an initial meeting in July, 1997.<sup>4</sup> At that meeting, attended by representatives of the telecommunications industry, business users, government

---

<sup>4</sup> Wireless telecommunications companies, which are not regulated by the WUTC, were not represented at the July meeting. Subsequent to the meeting staff succeed in contacting representatives of wireless companies.

organizations and public counsel<sup>5</sup>, the process for preparing the report was discussed. In August and September, WUTC staff traveled to the facilities of three telephone companies, including two in Eastern Washington, and had individual meetings with those who attended the initial meeting in July. Representatives of state and local government were contacted at this time. Finally, before preparing the report, the Commissioners held a public meeting in Coulee Dam to solicit comments from the public.<sup>6</sup> Approximately 50 people attended and most shared their opinions on the definition of basic telecommunications services.

When the first draft of the report was completed, it was distributed to those interested parties who participated in the July meeting and took part in discussions during August, September and October. Their comments helped to shape the final report; however, there is little, if any, industry-wide consensus on any issue and this report does not represent any views other than the Commission's.

### Scope Of Report

The 55th Legislature passed Substitute Senate Bill 6046 (Chapter 404, Laws of

---

<sup>5</sup> The Public Counsel Section of the Washington Attorney General's Office was created by the legislature in 1983 to represent the interests of consumers in utility regulatory proceedings, with an emphasis on residential and small business customers.

<sup>6</sup> Prior to passage of the legislation which required this report, the WUTC had already held one public forum on universal service. "Market or Mandate: Meeting Telephone Customers' Needs in a Competitive Era" was held in Seattle on April 22-23, 1996 and was attended by approximately 100 people.



1997), which requires this study of universal service and lists the topics to be included.<sup>7</sup> Those topics are: (1) a recommended definition of basic service for telecommunications; (2) an analysis of the range of potential telecommunications carriers, including wireless; (3) an analysis of the proper cost methodologies for determining universal service funding; and (4) options for generating and disbursing universal service funding.

Those four topics will be covered in the report. In addition, in order to explain the effects of federal decisions on state authority, the report will begin with information about the universal service requirements of the TCA and the FCC Report and Order concerning universal service. The report will not include information about the discounts and subsidies for schools, libraries and rural health care providers. Those discounts and subsidies are very important to Washington, but they are almost entirely controlled by the FCC and there is considerable information available elsewhere.<sup>8</sup>



---

<sup>7</sup> The title of the bill is "AN ACT Relating to a study by the utilities and transportation commission on universal telecommunications service."

<sup>8</sup> See "Getting Connected in Washington State: A Guide to Federal Universal Service Fund Discounts and Subsidies for Schools, Libraries and Rural Health Care Providers" at <http://www.wa.gov/dis/discountinfo/> and also see, generally, the FCC website at <http://www.fcc.gov/>

## THE FEDERAL TELECOMMUNICATIONS ACT OF 1996

### Congressional Action

Congress passed the Telecommunications Act of 1996 (TCA) “to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”<sup>9</sup> The TCA delegated to the Federal Communications Commission (FCC) and the states the responsibility of implementing the Act. Some of the responsibility is given solely to the FCC, some solely to the states, and some responsibilities are shared. Preservation and advancement of universal telecommunications service are the shared responsibility of the FCC and the states.<sup>10</sup>

The TCA prescribes how competitive long distance companies and monopoly local telephone companies can compete in each other’s markets and requires the FCC and states to implement the legislation. In addition, the Act requires that universal service--affordable access to the telephone network for all--be maintained where competition would not otherwise sustain affordable service.

One way to view universal service is the collision of market-based competition and

---

<sup>9</sup> Quotation of the title of the act, Public Law 104-104, 110 Stat. 154 (originally S. 652), approved February 8, 1996.

<sup>10</sup> See 47 U.S.C. 254 in general and, particularly, 47 U.S.C. 254(f).

service by government mandate. Where these two concepts collide, it will be up to regulatory agencies to reconcile their differences in a manner that ensures citizens continue to have telecommunications service for just and reasonable rates and that telephone companies receive compensation sufficient to sustain development of competitive alternatives for customers.

The FCC has issued a Report and Order approximately 800 pages in length detailing how they intend to preserve and promote universal service.<sup>11</sup> The Washington Utilities and Transportation Commission (WUTC), as it carries out its responsibilities to preserve and advance universal telecommunications service,<sup>12</sup> will make decisions based on the TCA, the FCC Report and Order, existing state law and any new legislation which may be enacted in 1998.

#### Section 254 of the Telecommunications Act of 1996

Section 254 of the TCA is the primary section of law concerning universal service.<sup>13</sup> The section includes:

- (1) the activities to be undertaken by the FCC;

---

<sup>11</sup> First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>12</sup> Jurisdiction between the FCC and the states has been the subject of considerable litigation since the early part of the century. In general, the FCC has jurisdiction over interstate telecommunications and the states have jurisdiction over intrastate telecommunications, but with exceptions as the result of both legislation and judicial decisions.

<sup>13</sup> 47 U.S.C. 254

- (2) the principles upon which the FCC shall base its policies for the preservation and advancement of universal service;
- (3) a definition of universal service;
- (4) a requirement that all telecommunications carriers shall contribute support to universal service;
- (5) restrictions on the use of universal service support;
- (6) a grant of authority to states to preserve and advance universal service and a requirement that telecommunications carriers contribute to support it;
- (7) a requirement that interexchange rates<sup>14</sup> for subscribers in rural and high cost areas be no higher than those for urban subscribers;
- (8) a requirement that states and the FCC ensure that universal service rates are just, reasonable, and affordable; and
- (9) a prohibition against the use of services that are not competitive to subsidize those that are.<sup>15</sup>

---

<sup>14</sup> Interexchange rates are long distance toll rates charged for state-to-state calls (over which the FCC has jurisdiction), in-state interLATA calls and certain in-state intraLATA calls. LATA stands for Local Access and Transport Area, a term coined in the decree divesting AT&T of local telephone service. In the break-up of AT&T, remaining bell operating companies (BOCs) were restricted to supplying local telephone service and toll service within small regions known as LATAs. Competition in long-distance was promoted by this restriction on the BOCs' ability to provide long distance; all consumers would have to engage MCI, Sprint, the remaining AT&T or another interexchange carrier to call long distance, that is, across LATA lines. A major purpose of the TCA is to permit BOCs to enter the interLATA market when there is competition in local telephone service. See United States v. AT&T, 524 F. Supp. 1336 (D.D.C. 1981). See also United States v. AT&T, 552 F. Supp. 131 (D.D.C. 1982).

<sup>15</sup> This section also contains the provisions relating to discounts and subsidies for schools, libraries and rural health care providers, which will not be covered by this report. See

## FCC Activities

Congress required the FCC to take two actions intended to lead to rule making which would define the services to be supported by federal universal service support mechanisms and a timetable for implementation. The first activity was the establishment of a Federal-State Joint Board<sup>16</sup> to make recommendations to the FCC on rules necessary to implement section 214(e) and section 254.<sup>17</sup> The Joint-Board recommendations were published in November 1996, and covered all the topics relevant to universal service.<sup>18</sup> The second action was to promulgate rules to implement many of the recommendations of the Joint Board.<sup>19</sup> This was accomplished in May 1997, and included guidance to the states on their actions

---

n.8, above.

<sup>16</sup> The Federal-State Joint Board on Universal Service consisted of three of the five Commissioners of the FCC and four state Commissioners. Washington was represented on the Joint Board by Sharon Nelson, then Chairman of the WUTC.

<sup>17</sup> Section 214(e), or 47 U.S.C. 214(e), concerns the designation of eligible telecommunications carriers. An eligible telecommunications carrier (ETC) is a carrier designated by a state commission that may receive federal universal service support in exchange for a willingness to serve all customers in its service area and which advertises its services in media of general distribution. The FCC required states to make initial designations of ETCs prior to January 1, 1998 as a prerequisite to continued federal support. The WUTC made designations necessary to ensure that companies in Washington entitled to receive funds in 1998 would be eligible for those funds. Designation of ETCs will continue as competition increases.

<sup>18</sup> Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

<sup>19</sup> The FCC followed the recommendations of the Joint Board in large part, but did differ on some significant topics which are noted later in the report. Not surprisingly, topics on which the WUTC diverges from the FCC are often those topics where the FCC diverged from the recommendations of the Joint Board.

necessary to create a coherent program of universal service administered by both the FCC and the states.<sup>20</sup>

### Universal Service Principles

Subsection (b) of 47 U.S.C. 254 lays out the principles upon which the FCC is to base its policies for the preservation and advancement of universal service . There are seven principles, with the seventh one added by the FCC as permitted by the Act.<sup>21</sup>

1. Quality service should be available at just, reasonable and affordable rates.
2. Access to advanced telecommunications and information services should be provided in all regions of the Nation.
3. Consumers in all regions of the Nation, including low-income consumers and those in rural, insular and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to

---

<sup>20</sup> First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>21</sup> See 47 U.S.C. 254(b)(7).

those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

4. All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.
5. There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.
6. Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services[.]
7. Universal service support mechanisms and rules should be competitively neutral. In this context, competitive neutrality means that universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another.<sup>22</sup>

### Definition of Universal Service

---

<sup>22</sup> This additional principle is consistent with the recommendations of the Joint Board. See ¶ 47, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

Subsection (c) provides a definition of universal service. “Universal service is an evolving level of telecommunications services that the Commission [FCC] shall establish periodically under this section.” The subsection requires the FCC to consider, at a minimum, four things when it defines basic services to be supported by federal universal service mechanisms. They are the extent to which telecommunications services--

- (1) Are essential to education, public health, or public safety;
- (2) have, through the operation of market choices by carriers, been subscribed to by a substantial majority of residential customers;
- (3) are being deployed in public telecommunications networks by telecommunications carriers; and
- (4) are consistent with the public interest, convenience and necessity.

From this definition and the principles described immediately above, the FCC developed a list of basic services to be supported by federal universal service support mechanisms.<sup>23</sup> That list of services will be discussed later in the report, as will the importance of that list to decisions to be made in Washington.

### Telecommunications Carrier Contributions

Subsection (d) requires that every telecommunications carrier that provides

---

<sup>23</sup> The term “universal service support mechanism(s)” is used throughout the TCA rather than “support funds” because, as will be described later, some of the support for universal service does not involve an explicit transfer of money between carriers or from carriers to a fund and then distribution to other carriers.



interstate telecommunications service contribute to the mechanisms established by the FCC to preserve and advance universal service. Contributions are to be on an equitable and nondiscriminatory basis and made to support mechanisms which are specific, predictable and sufficient to ensure universal service. Providers whose contribution would be *de minimis* may be exempted and other providers may be required to contribute if the public interest requires.<sup>24</sup>

#### Restriction on Use of Universal Service Support

Subsection (e) states carriers that receive universal service support shall use the support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. The support should be “explicit” and “sufficient” to maintain and advance universal service.<sup>25</sup>

#### Grant of Authority to States

States are given authority to “adopt regulations not inconsistent with the [FCC’s] rules” in order to create specific, predictable and sufficient support mechanisms to

---

<sup>24</sup> The FCC interpretation of this section will result in contributions from, among others, wireless providers but not from information (internet) service providers. This will be covered in more detail later in the report. See ¶ 772 to 800, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>25</sup> The word “explicit” has generated considerable comment and many commenters point, erroneously, to subsection (e) and the word explicit as support for their position that state universal service must be supported by a state mandated (or permitted) end-user charge which appears as a separate item on customers’ bills, as is the case with the federal \$3.50 subscriber line charge (SLC). However, subsection (e) governs only *federal* universal service support mechanisms. This will be an important point later in the report where recommendations for support mechanisms are discussed.

preserve and advance universal service in their respective state. Every telecommunications carrier which provides intrastate service must contribute on an equitable and nondiscriminatory basis. State definitions and standards may not “rely on or burden” federal universal service support mechanisms.

#### Interexchange Rate Equality

Subsection (g) of the TCA requires that interexchange rates for interstate calls be the same for urban and rural customers. The FCC has already taken action to implement this requirement.<sup>26</sup> A call from Colville to Kansas City should cost no more than a call from Spokane to Kansas City; that one originates in a high-cost area and the other in a low-cost area should make no difference.<sup>27</sup>

#### Just, Reasonable and Affordable Rates

Subsection (i) requires that the States and the FCC ensure that universal service is available at rates that are just, reasonable, and affordable.<sup>28</sup>

---

<sup>26</sup> See First Report and Order, In the Matter of Access Charge Reform, CC No. Docket 96-262 (May 16, 1997)

<sup>27</sup> Washington has similar provisions. See RCW 80.36.180-190.

<sup>28</sup> Section 201(b) of the Telecommunications Act of 1934 requires that “All charges...be just and reasonable”, but not “affordable” as found in 47 U.S.C. 254(i). The Section 201(b) requirement can be traced from the original Interstate Commerce Act, 24 Stat. 379 (1887) and common law. At common law, common carriers were prohibited from discriminating against persons or places and could not give preferences. See Paglin, Max D., ed. , A Legislative History of the Telecommunications Act of 1934, New York, Oxford University Press, 1988. In Washington, the WUTC is to ensure that “...rates...shall be just, fair, reasonable and sufficient...” RCW 80.36.080.

### Changes to Federal "Lifeline" Program Prohibited

Subsection (j) prohibits changes to the Federal Lifeline Assistance Program. The Lifeline program provides assistance to low-income customers who otherwise would find it difficult to pay for local telephone service. Washington has the Telephone Assistance Program which serves the same purpose and takes advantage of federal funds available through the Lifeline program.<sup>29</sup> The FCC has proposed increasing the amount of federal support available to offset customer local telephone service bills from \$5.25 to an amount not to exceed \$7.00 per customer.<sup>30</sup>

### Prohibition Against Subsidy of Competitive Services

Subsection (k) prohibits the use of non-competitive services to subsidize services which are competitive. The FCC and states are also required to establish cost allocation rules, accounting safeguards and guidelines to ensure that supported services bear no more than a reasonable share of the joint and common costs of facilities used to provide supported, basic services.<sup>31</sup>

---

<sup>29</sup> See RCW 80.36.410-475. N.B. This program is set to expire on June 30, 1998.

<sup>30</sup> The additional \$1.75, or a portion thereof, depends on a one-to-one state match. See ¶ 350-53, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). If Washington were to match federal funds, the federal portion of support would be \$7.00 per month.

<sup>31</sup> The FCC has determined that the interstate share of high-cost support should be 25 percent, with states responsible for 75 percent. The percentage of federal support corresponds to the present interstate allocation for separations and is based on the work of the Separations Joint Board. The FCC relied on four principles when it chose 25 percent; the four principles were "(1) ensure the permanent protection of universal service; (2) provide certainty to all



---

parties; (3) be administratively workable; and (4) be fair and equitable to all parties.” See Jurisdictional Separations Procedure, Second Recommended Decision and Order, CC Docket 80-286, 48 Fed. Reg. 46556 (Oct. 13, 1983) and ¶ 269-71, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

## DEFINITION OF BASIC SERVICES

### The FCC Definition of Basic Services

The FCC has defined basic services to include:

- 1) Single-party service;
- 2) Voice grade access to the public switched network;
- 3) Support for local usage;
- 4) Dual tone multi frequency signaling (touch-tone);
- 5) Access to emergency services (911);
- 6) Access to operator services;
- 7) Access to Interexchange services;
- 8) Access to directory assistance; and
- 9) Toll limitation services.

In order for a carrier to be eligible to receive federal universal service support, it must offer the nine services listed above. Each service requirement is listed below with more detail. It is important to understand that a carrier need not offer these services; however, the carrier will be ineligible for federal universal service support as of January 1, 1998 if it does not offer these basic services.

### Single-Party Service

The FCC requires that customers have the option to order single-party service.

The FCC considers single-party service essential to public health and safety

because it permits access to emergency services without delay. The FCC has also concluded that wireless service meets the requirements of single-party service. However, a carrier is not precluded from offering multi-line service.<sup>32</sup>

#### Voice Grade Access to the Public Switched Network

This includes the ability to make and receive calls on the public network at a frequency range between 500 Hertz and 4,000 Hertz.<sup>33</sup> The FCC rejected calls for requiring a greater bandwidth<sup>34</sup> as a basic requirement.<sup>35</sup> One reason for declining to require greater bandwidth (which would permit higher speed transmission of facsimile (FAX) and data) is because to do so would, in the opinion of the FCC, increase the basic cost of telecommunications for all customers. The FCC indicated it will revisit this issue as technology progresses.<sup>36</sup>

#### Support for Local Usage

The FCC believes that access to the public switched network is not enough to ensure universal service. In its opinion, a certain amount of use of the network

---

<sup>32</sup> ¶ 62, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>33</sup> Hertz (Hz) is a measure of frequency in cycles per second.

<sup>34</sup> Bandwidth is a measure of the range of electrical frequencies a device can carry. A wide band circuit that can carry a television channel, for example, is large enough to carry 1,200 voice telephone channels.

<sup>35</sup> ¶ 63, 64, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>36</sup> Id. ¶ 64.

must be supported. An example of supported use is Washington's present requirement that all carriers provide a flat-rate, unlimited local calling option.<sup>37</sup> The FCC has yet to determine how much use should be supported with federal universal service support; it has stated that states are in the best position to determine how much usage should be supported with state universal service supports.<sup>38</sup> In addition, the FCC believes that adherence to the principle of competitive and technological neutrality requires that implementation of this requirement must be done in a way that does not favor wireless over wireline or the reverse.<sup>39</sup>

#### Dual Tone Multi Frequency Signaling (Touch-Tone)

Dual tone multi frequency (DTMF) signaling speeds call completion and carries information necessary to emergency services attempting to identify the origin of calls. The FCC has found that DTMF signaling, or signaling of another nature which meets the same needs, is in the interest of public health and safety, as well as convenience. It has approved wireless out-of-band digital signaling as equivalent

---

<sup>37</sup> See RCW 80.04.130(3), prohibiting imposition of mandatory measured service. This prohibition expires June 1, 1998. Unlimited flat-rated calling may be an important requirement for continued work-at-home options offered by many employers.

<sup>38</sup> In the case of extended local calling, the state may find the FCC unwilling to share the additional cost associated with increased support for local usage beyond what the FCC eventually determines it will support.

<sup>39</sup> ¶ 65 to 70, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). The WUTC does not regulate wireless carriers. Legislation would be necessary to require a flat-rate option for wireless customers.

to DTMF.<sup>40</sup>

#### Access to Emergency Services

The FCC will support through universal service support mechanisms the telecommunications network components necessary for access to 911 and E911 service. The FCC noted that wireless companies have already been placed on a schedule to meet earlier FCC requirements to provide 911 service.<sup>41</sup>

#### Access to Operator Services

The FCC requires access to automatic or live assistance to arrange for billing or completion of telephone calls. This includes the ability to place collect, third-party billed and person-to-person calls. It does not include busy signal verification and emergency interrupt.<sup>42</sup>

#### Access to Interexchange Services

The FCC will support through universal service support mechanisms access to interexchange service of the customer's choice. Among other things, the FCC

---

<sup>40</sup> Id. ¶ 71

<sup>41</sup> Id. ¶ 72-74

<sup>42</sup> ¶ 71, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). Cf. First Report and Order, Local Competition Order, CC Docket No. 96-98 (1996) at paras. 13, 110 and 111.



concluded this serves the public interest, convenience and necessity.<sup>43</sup> The FCC will not, at this time, support *equal* access to interexchange service because it is inconsistent with section 332(c)(8) of the act, which prohibits any requirement that commercial mobile radio service (CMRS)<sup>44</sup> providers offer “equal access to common carriers for the provision of toll services.”<sup>45</sup> Equal access to interexchange service means that dialing 1+ the telephone number for long distance automatically sends the call via the customer’s presubscribed interexchange carrier (e.g. AT&T, MCI, Sprint) without the necessity of dialing any access codes. As a practical matter, most customers of wireline service have equal access to interexchange service for interstate interLATA<sup>46</sup> and intrastate interLATA calls.

#### Access to Directory Assistance and White Pages Directories

The FCC has concluded that directory assistance is, among other things, necessary for public health and safety and has concluded that it is functionally a telecommunications service. Accordingly, the FCC will support access to

---

<sup>43</sup> ¶ 76 and 77, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>44</sup> Commercial mobile radio service is wireless telephone service. See 47 U.S.C. 332(c)(7)(C) and 47 U.S.C. 153(27).

<sup>45</sup> ¶ 78, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>46</sup> See n.14, *supra*.

directory assistance with universal service support mechanisms.<sup>47</sup>

The FCC has also concluded, however, that white pages directories are not a telecommunications service and has declined to include white pages as a basic service to be supported. The FCC does “encourage” carriers to continue to make white pages directories available to consumers.<sup>48</sup>

### Toll Limitation Services

The FCC has concluded that toll limitation services, including toll blocking and toll control, are essential to maintaining access to the public network for low-income consumers, and are therefore in the public interest.<sup>49</sup> Toll blocking results in the complete inability to make a toll call that would be billed to the originating number. Toll control would permit a customer to designate a maximum amount of toll expenditure per month which would be monitored by the carrier in real-time and block toll calls after the predetermined amount is reached. The FCC has acknowledged that not all carriers are capable of providing toll limitation services, particularly toll control. Accordingly, it has authorized state commissions to permit those carriers to receive universal service support while they complete up-

---

<sup>47</sup> Id. ¶ 80.

<sup>48</sup> Id. ¶ 81.

<sup>49</sup> Id. ¶ 82.

grades to their switches to provide the service.<sup>50</sup>

### Access to Internet Services

The FCC specifically rejected access to internet services as a basic service to be supported by federal universal service support mechanisms. The FCC noted that voice-grade access usually permits access to the internet. It also drew a distinction between telecommunications services, which are supported, and information services, which will not be supported. The FCC concluded that access to the internet is not “essential” as that word is used in section 254(c)(1)(A). In these determinations the FCC was in accord with the Federal-State Joint Board on Universal Service. The FCC anticipates that increasing demand will cause carriers to offer higher bandwidth services to residential customers.<sup>51</sup> The FCC did not address the effect of this decision on business customers.

### Recommended State Definition of Basic Services

Washington may define basic services to be supported by state universal service support mechanisms. Washington can choose a definition different than the one chosen by the FCC. If Washington requires less, then companies that seek federal universal service funds will nevertheless have to comply with the larger FCC list of

---

<sup>50</sup> The FCC states that this is not the grant of an exception to the requirement but merely “a transitional mechanism.” ¶ 388, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). See also 47 C.F.R. 54.401.

<sup>51</sup> ¶ 83, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

requirements. If Washington chooses a list of services greater in scope than the FCC list, then companies that desire to receive both federal and state support will have to provide the greater level of service.

The TCA places some restraint on states' adoption of an expanded list of basic services. In 47 U.S.C. 254(f) the Act requires that any additional definitions or standards be supported by additional specific, predictable and sufficient support mechanisms "that do not rely on or burden Federal universal service support mechanisms."<sup>52</sup> This means the state will bear the full cost of any additional basic service requirements beyond the FCC list.<sup>53</sup>

**Option 1 Washington adopts the FCC list of basic services.** This option provides consistency for companies wishing to provide universal service in return for eligibility to receive support. It will be easier to manage for both the FCC and

---

<sup>52</sup> Attendees at a Commission public meeting on September 25, 1997 in Coulee Dam expressed their desire to have flat-rated calling to essential services (e.g. sheriff, school district and school buildings, banks, post office) as part of the definition of basic telecommunications service. This can be addressed under the "Support for Local Usage" portion of the FCC list of basic services.

<sup>53</sup> Many consumers would like higher bandwidth (higher speed) access to the internet. This appears to be particularly true in rural areas where the internet has provided information resources which are not otherwise available as they sometimes are in urban areas. The attendees at the Commission's public meeting in Coulee Dam, for example, were uniform in their call for increased competition in telecommunications in order to bring better infrastructure, including higher bandwidth, to rural areas. To order higher bandwidth as a basic service, however, would necessitate considerable expense which would have to be shared by all customers, even those who do not desire it.

the state with respect to the administration of support mechanisms. This option should eliminate the possibility for confusion among consumers. Access to the internet at higher than voice-grade bandwidth should not be included in a list of Washington's basic services. Not only would this conflict with the FCC list, but it would have the very effects the FCC sought to avoid. Such a requirement would cause the price of basic telecommunications service to rise for all consumers and at the same time result in enhancements to the network which would go unused by the majority of customers.

**Option 2** Washington adopts a smaller or larger list than the FCC list of basic services. This option has benefit only if there are services which Washington policy makers do not wish to provide or which are considered necessary additions to the FCC list. No services have been recommended to the Commission which should be eliminated from the FCC list nor added to it.

**Recommendation:** Washington should adopt the list of FCC basic services. The WUTC has the authority under RCW 80.36.140 to carry out this recommendation.

**Legislative Action:** The WUTC has the authority under RCW 80.36.140 to carry out this recommendation.



## ANALYSIS OF POTENTIAL TELECOMMUNICATIONS CARRIERS

The second part of the report is an analysis of potential telecommunications carriers, including wireless. Washington has an active telecommunications industry, with over 480 registered companies. This number does not include wireless companies, which are not required to register with the WUTC and are not regulated by the WUTC.<sup>54</sup>

Washington has had competition in the long distance telecommunications market since the mid-1980s and in the local exchange market since 1992. It is a leader in promoting competition in telecommunications through legislation and WUTC policy.<sup>55</sup> Competition for local telephone service in Washington, primarily through competitive service to business customers, pre-dates the Telecommunications Act of 1996. However, even though Washington is a leader in promoting competition, competitive telecommunications companies in Washington have only a very small fraction of the market share.

### Technological Neutrality

The FCC has included as a principle of universal service that support mechanisms and rules must be competitively neutral. Included in this principle is technological

---

<sup>54</sup> RCW 80.36.370 (6)

<sup>55</sup> See In re Electric Lightwave, Inc., 123 Wn.2d 530, 542 (1994). (Upholding the Commission's decision to permit competition in the local exchange market.)

neutrality. In addition, 47 U.S.C. 253 prohibits barriers to entry. “No state or local statute, or other state or local legal requirement, may prohibit, or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.” The FCC has authority to enforce the section quoted above through preemption of state and local statutes and regulations.<sup>56</sup>

### Telecommunications Technology

There are several types of telecommunications technology deployed today. The most common is wireline technology. This includes copper, fiber optic and coaxial cable transmission technology. Wireless is the second most common. This technology includes cellular, satellite and radio broadcast technology. In addition, new technologies are introduced on a frequent basis. For example, in October a consortium of European electric companies and NorTel (Northern Telecommunications, a major switching system manufacturer) announced they would soon begin trials for providing telecommunications to customers via their electric wires.

### Wireline Technology

This is the technology with which all of us are familiar. Wireline technology uses fixed wires, either aerial or buried, to transmit telecommunications information from point to point. Copper, fiber optic or coaxial cable may be used to transmit the information. Which technology is deployed depends on a number of

---

<sup>56</sup> 47 U.S.C. 253(d).

engineering and economic decisions made by the providers of telecommunications. The WUTC does not have authority to direct companies in these engineering decisions.<sup>57</sup>

### Wireless Technology

The common uses of wireless technology are cellular telecommunications, satellite telecommunications and microwave communications. Cellular and satellite can be used by individual customers to meet basic voice communications needs and some data transmission needs. Microwave is most commonly used by carriers to transmit large amounts of information, be it many separate telephone calls or high-speed data, from point to point.

Most wireless uses for daily telephone traffic require switching on to and off of the public switched network.<sup>58</sup> The simplest example is a call from a cellular telephone to a wireline telephone in a home or office. The call travels from the cellular telephone to the cell site, where it is directed to a switch connected to the wireline telephone network, and from there is directed to the wire leading to the home or office telephone. The value of wireless technology depends in part on the availability of wireline technology, which in turn is more valuable because wireless telephones can be reached from wireline telephones.

---

<sup>57</sup> The WUTC does have the authority to cause rates to reflect different deployment amounts based on imprudency findings.

<sup>58</sup> The public switched network is described in the previous section.



Satellite technology is not much different than cellular technology. It depends on transmission of information on radio waves from one point to another with the telephone signal being “bounced” off a satellite and onto the public switched network to be routed to the recipient.

### Economics of Different Technologies

The relative economic value of one technology versus another is not easy to determine in the present, let alone in the future. For example, much of the technology deployed today to provide PCS (personal communication services) has yet to make a profit for investors. Nevertheless, it continues to attract billions of dollars in investment because profits are expected in the future. In the last half of 1996, over \$5.9 billion dollars were invested nationwide in wireless, mostly PCS, companies.<sup>59</sup> This is more than double the investment in the first half of 1996, which was \$2.6 billion dollars.<sup>60</sup> Even with this level of investment, PCS companies are not expected to have bottom-line profits for another five to eight years.<sup>61</sup> At the same time, investment in the combination of telephone and cable television systems may be changing. U S West, Inc. announced in October, 1997 that it will split its local telephone and cable businesses after determining that cable/telephony technology would not necessarily be best managed on an

---

<sup>59</sup> “Telecommunications: Wireless” Industry Surveys, Volume 165, Number 27, p. 1; Standard and Poors, New York (July 3, 1997).

<sup>60</sup> Id.

<sup>61</sup> Id. 2.

integrated basis with traditional wireline telephone assets.<sup>62</sup>

Investment in telecommunications technology is best left to the market. The WUTC is not in a position to determine for industry which are the viable technologies and wise investments and which are not. As will be described in the last section of the report, the WUTC must concentrate on providing sufficient support to high-cost customer locations so that providers of all types of efficient telecommunications services will want to enter these otherwise unattractive markets.

#### An Invitation to High-Technology Firms and Users--Rural Economic Development

A competitively and technologically neutral approach to supporting customers in high-cost locations is an important economic development tool, especially for rural areas. Legislation to create a new universal service support program which provides specific, predictable and sufficient support for high-cost locations will result in support for the most efficient, technologically advanced providers of telecommunications service. High-density areas of manufacturing and commerce will always attract capital investment. Rural areas can also attract some of this investment if there is sufficient universal service support for high-cost areas. The investment supported by universal service supports should act as an attraction to businesses and individuals who need high-technology communications systems

---

<sup>62</sup> "U S West gives up on telephone-cable television marriage," The Olympian, October 28, 1997. See also USWC comments on Draft USF Report, WUTC Docket No. UT-971121, p. 8.

and those telecommunications companies which can provide the necessary infrastructure. Secure in the knowledge that support will be available for providing basic services, telecommunications companies can then make investment decisions in new technology which will attract new business customers.

**Recommendation: The Legislature and the Commission should not choose one technology over another as they develop policy.** This will permit market forces to determine which technology or technologies will attract customers and the growth and profits which go with them.

**Legislative Action:** There are many new telecommunications technologies introduced to the market every day. It is important the legislation on universal service not favor one technology over another.



## AN ANALYSIS OF COST METHODOLOGIES FOR DETERMINING UNIVERSAL SERVICE FUNDING

### Four Proposed Cost Methodologies

Four cost methodologies have been proposed for determining the cost of service in high-cost areas. Each methodology would result in a different cost amount per loop<sup>63</sup> and thus result in different levels of support necessary to preserve and advance universal service. In arriving at a determination of cost upon which to set support for providing universal service in high-cost areas, it is important that the cost chosen will neither result in over-compensation nor result in under-compensation. Over-compensation would lead carriers to make inefficient investments that may not be financially viable when there is competitive entry.<sup>64</sup> If under-compensation results, there will be a serious barrier to entry for new competitors.<sup>65</sup>

The four cost methodologies are (1) Forward-looking economic cost; (2) Embedded cost; (3) Legacy cost; and (4) Construction costs. Only the first two, forward-looking economic cost and embedded cost, are complete methodologies.

---

<sup>63</sup> “Subscriber loop” or “loops” are the connection between the telephone company’s central office and the customer’s premises. See n.523, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>64</sup> ¶ 228, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997), quoting the Recommended Decision of the Joint-Board, 12 FCC rcd at 232.

<sup>65</sup> Id.

Compensating for legacy cost and construction cost have been proposed as adjuncts to other cost methodologies.

### Proxy Models and Inputs

The FCC has determined it will base support for universal service on forward-looking economic costs. It plans to use a proxy model<sup>66</sup> to determine costs and from those costs calculate the amount of support necessary to preserve and advance universal service. If Washington chooses to use forward-looking economic costs, it will accomplish this through a cost proxy model. When using a model, the inputs have a significant bearing on the projected costs. A choice will have to be made between using so-called “default” inputs, which are generic calculations of the cost of replacement for any given part of the network and for its operation, or using “company specific” inputs, which are inputs that reflect actual costs incurred for certain equipment and operations. The use of company specific inputs may yield higher costs estimates and drive up the cost of universal service.

### Forward Looking Economic Costs

Forward-looking economic costs means the cost of producing services using the least cost, most efficient, and reasonable technology currently available for

---

<sup>66</sup> The leading models are the Benchmark Cost Proxy Model (BCPM) and the Hatfield Model. The FCC continues to work with the designers of these models and with other model designers to improve accuracy in modeling forward-looking costs. Cost calculations from models, as proxy’s for actual costs, will be used because of the near impossibility of assigning a cost to every telephone line in the United States and because the important cost that must be determined is replacement cost--an event which has not occurred and for which there are no actual costs. State utility commissions are examining the same models.

purchase with all inputs valued at current prices.<sup>67</sup> The FCC has adopted this approach and will begin using it in 1999 for non-rural carriers because it will send the correct economic “signals” for entry, investment and innovation.<sup>68</sup> In addition, the FCC has determined that forward-looking costs provide the best means for determining the level of universal service support because their use creates incentives for carriers to operate efficiently and does not give carriers any incentive to inflate their costs or to refrain from efficient cost-cutting.<sup>69</sup>

### Embedded Costs

The term embedded costs refers to a carrier’s historic loop or switching cost; the Joint-Board used it synonymously with “booked cost” and “reported cost.”<sup>70</sup> The FCC determined that use of embedded cost would “discourage prudent investment planning because carriers would receive support for inefficient as well as efficient investment.”<sup>71</sup>

---

<sup>67</sup> See n.573, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). See the Recommended Decision of the Joint-Board, 12 FCC rcd at 230-232.

<sup>68</sup> ¶ 224, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>69</sup> Id. ¶ 226.

<sup>70</sup> See n.580, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). See Recommended Decision of the Joint-Board, 12 FCC rcd at 185.

<sup>71</sup> ¶ 228, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

The use of embedded cost to determine universal service support would incorporate any inefficient investment which has previously been made. This would particularly be the case where reported costs of high-cost companies<sup>72</sup> are concerned. The current federal system of support, which is based on embedded costs, yields a 100% recovery for expenditures above 150% of the national average loop cost.<sup>73</sup> As a result, there is no brake on investment; indeed, there is an incentive to over-invest because return on investment is a percentage of cost.

### Legacy Costs

This term has been used to mean the alleged under-depreciated plant and equipment presently operated by incumbent telephone companies.<sup>74</sup> The FCC has determined that legacy costs should not be a part of the universal service calculation because new universal service mechanisms are intended to provide support to carriers in addition to revenues associated with the provision of

---

<sup>72</sup> High-cost companies are those companies with average loop costs greater than 115% of the national average loop cost. ¶ 210, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>73</sup> "...carriers with loop costs greater than 150 percent of the national average recover 100 percent of their loop costs above 150 percent of the national average from the interstate jurisdiction. In other words, they receive a dollar from the interstate jurisdiction for each dollar of loop costs above 150 percent of the national average loop cost." ¶ 210, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). It is important to note, however, that high-cost companies make spending decisions for a variety of reasons and based on many factors.

<sup>74</sup> An incumbent telephone company, most often referred to as an incumbent local exchange company (ILEC) is one which has been providing monopoly service in a given area. Compare to competitive local exchange company (CLEC) which is the term for a new entrant in previously monopoly markets.

service.<sup>75</sup> At the same time, the FCC has addressed the allegations of some incumbents that failure to provide a mechanism for recovering legacy costs would be an illegal taking under the Fifth Amendment to the U. S. Constitution. No company, however, has shown specific evidence that the use of forward-looking costs to determine universal service support would deprive it of property without just compensation.<sup>76</sup>

### Construction Costs

One Bell Operating Company (BOC) has suggested a special fund to support initial construction to serve end-users. Under the proposal, if the user were to later switch to a new local carrier, only support for operational costs would be provided to the new carrier. The FCC believes such a scheme would discourage new construction by competitive entrants and would contravene Congress's explicit goal to foster facilities-based competition.<sup>77</sup>

### Differential Treatment for Rural and Non-Rural Providers

---

<sup>75</sup> ¶ 230, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>76</sup> Id.

<sup>77</sup> The FCC will examine this approach to see if there might be special circumstances where one-time payments of support for construction might be appropriate. ¶ 230, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).



The Joint Board recommended and the FCC agreed that rural<sup>78</sup> and non-rural telecommunications carriers should be treated differently with respect to the calculation of costs for the purpose of determining universal service support.<sup>79</sup> Both expressed a concern that the use of the as yet unrefined cost models has the potential of resulting in either insufficient support or windfall profits for rural carriers because of their small size and the high-cost nature of their service areas. At the same time, both the Joint Board and the FCC concluded that forward looking economic costs should be used for rural carriers after the year 2000.

---

<sup>78</sup> Rural Telephone Company is defined in 47 U.S.C. 153(37):  
The term 'rural telephone company' means a local exchange carrier operating entity to the extent that such entity-

- (A) provides common carrier service to any local exchange carrier study area that does not include either-
- (i) any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or
- (ii) any territory, incorporated or unincorporated, included in a urbanized area, as defined by the Bureau of the Census as of August 10, 1993;
- (B) provides telephone exchange service, including exchange access, to fewer than 50,000 access lines;
- (C) provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or
- (D) has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996.

A non-rural telecommunications provider is one that is not rural as defined by 47 U.S.C. 153(37).

<sup>79</sup> ¶ 291, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

### Temporary Use of Embedded Costs

The FCC will use embedded costs to determine all federal universal service support for calendar year 1998. Embedded costs will continue to be the basis for determining federal universal service support for rural carriers through 2000.<sup>80</sup> For non-rural carriers, federal universal service support will be based on forward looking economic costs as determined by an FCC chosen cost proxy model beginning with calendar year 1999.<sup>81</sup>

### States Not Restricted to Embedded Costs

States are not restricted to the use of embedded costs for either rural or non-rural carriers; they may adopt regulations and standards that preserve and advance universal service so long as they do not rely on or burden federal universal service support mechanisms.<sup>82</sup> The FCC decision affects only federal universal service support; it does not control state decisions concerning state universal service support mechanisms.<sup>83</sup> It is up to the states to determine their state universal

---

<sup>80</sup> ¶ 204, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>81</sup> Id. ¶ 248.

<sup>82</sup> 47 U.S.C. 254 (f).

<sup>83</sup> Id., But see ¶ 813-23, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997), where the FCC claims Congress expressly authorized the Commission to define the parameters of universal service. The FCC argument, however, is based substantially on 47 U.S.C. 152(b), the same statute on which the FCC relied in an attempt to direct state commission activity in interconnection and pricing of unbundled network elements. The 8th Circuit recently eviscerated the FCC claim of authority over intrastate pricing based on 47 U.S.C. 152(b) and, by analogy, it is easily concluded that the argument for FCC

service mechanisms and to decide when and how competition comes to areas served by rural carriers.<sup>84</sup>

**Option 1: Washington bases universal service support on forward-looking economic costs for all carriers.** This option promotes efficient competitive entry, efficient investment and technological innovation, and is consistent with RCW 80.36.300.<sup>85</sup> It promotes prudent use of consumer-funded universal service support because it creates incentives for carriers to operate efficiently and provides no incentive to inflate costs or refrain from cost-cutting.<sup>86</sup>

---

authority with respect to state universal service decisions contained in ¶ 813-23 would not withstand a challenge. See Iowa Utilities Board v. FCC, slip opinion at <http://www.ls.wustl.edu/8th.cir> (July 18, 1997).

<sup>84</sup> The TCA provides for differential treatment of rural and non-rural carriers in two areas in order to prevent too great a burden from being placed on rural carriers at the onset of implementation of the TCA. See 47 U.S.C. 214(e) and 47 U.S.C. 251(f)(1). In each case, however, the TCA permits state commissions to treat rural carriers like non-rural carriers based on a finding that the protections are not in the public interest or there will be no undue economic burden. See 47 U.S.C. 214(e) and 47 U.S.C. 251(f)(1)(B) and (C) and 251(f)(2).

<sup>85</sup> In modeling the forward looking economic cost, the choice of model inputs should be left to the Commission. It is in the best position to determine this level of detail in a process which will have to be repeated from time-to-time as models are refined.

<sup>86</sup> In the Commission's pending decision on the General Cost Docket in which it will determine the cost of unbundled network elements, it is anticipated the Commission will use forward-looking economic costs to determine the cost of network elements. See WUTC Docket No. UT-960369.

**Option 2: Washington bases universal service support on embedded costs for all carriers.** This option is not consistent with the methodology which will be used to provide the 25 percent of universal service support from federal support mechanisms. The use of embedded costs will not discourage inefficient investment, nor will it send economic “signals” that promote entry and investment from new competitors. Rather, use of embedded costs will incorporate and magnify previously inefficient investment.

**Option 3: Washington bases universal service support on forward looking economic costs for non-rural carriers and uses embedded costs for those rural carriers where it does not impede competition or introduction of new technology.** Like Option 1, this option promotes efficient competitive entry, efficient investment and technological innovation. It promotes prudent use of consumer-funded universal service support because it creates incentives for carriers to operate efficiently and provides no incentive to inflate costs or refrain from cost-cutting. At the same time, it is congruent with Congressional action which permits differential treatment of rural carriers when it is in the public interest. Because many rural companies are small and serve difficult to model geographic areas, there is a concern that proxy models could under-estimate the necessary amount of support or result in a windfall, either of which would not be competitively neutral.

**Option 4: Washington considers legacy costs and construction costs when**

**developing its universal service support mechanisms.** This option is not consistent with an approach that promotes competition and efficiency. If Washington were to choose embedded costs as a basis for determining the level of universal service support, legacy and construction costs would be double-counted and overcompensation would result at an expense to consumers. If Washington chooses forward-looking economic costs as the basis for calculating universal service support, then inclusion of legacy costs and construction costs would impede competitive entry and the efficiency and innovation which result.

**Recommendation: Washington should adopt a forward-looking cost methodology for determining the level of universal service support for non-rural carriers and use embedded costs for those rural carriers where it does not impede competition or introduction of new technology.** The use of forward-looking economic costs will promote competitive entry, efficient investment and technological innovation. This methodology promotes the purposes of the TCA, including increased competition, reduced regulation, lower prices and higher quality of service and the deployment of new technology.

**Legislative Action:** The Commission has authority to use forward-looking cost methodology for universal service.



## **OPTIONS FOR GENERATING AND DISBURSING UNIVERSAL SERVICE FUNDING**

In order to explain fully the options for generating and disbursing universal service funding, it is important to understand the manner in which universal service is supported today. Universal service has been a policy in the United States for most of this century. It received its first formal support in the Telecommunications Act of 1934.<sup>87</sup> But it has only been clearly and directly stated in the recent TCA. This section gives some brief history of universal service support and explains the present support mechanisms. Options for new universal service support mechanisms in line with the pro-competitive requirements of the TCA are then presented.

### The 1934 Act and Progress in Universal Service

At the time of the Telecommunications Act of 1934, approximately one-third of American homes had telephone service.<sup>88</sup> In that Act, Congress codified the notion of universal telephone service. Section 1 of the Act states its purpose is "...to make available, so far as possible, to all the people of the United States a rapid, efficient, nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges..."<sup>89</sup> There was no definition of "basic services" because nearly all service at the time was rudimentary.

---

<sup>87</sup> 48 Stat. 1064 (1934).

<sup>88</sup> Kellogg, Michael K. et al, Federal Telecommunications Law, Little Brown and Company, Boston (1992), p. 453.

<sup>89</sup> 47 U.S.C. 151

Under the 1934 Act, the provision of telephone service was treated as a natural monopoly which needed to be regulated and for which charges were to be just and reasonable. This regulation was carried out by both the FCC and state utility commissions. In order to achieve universality there had to be access to the network at affordable rates. The purpose of regulation became to ensure sufficient investment in infrastructure to provide access to the network and at the same time keep the price for local service affordable. At first, average pricing was used to spread the cost of the network so that the customer farthest from the switch paid a rate not significantly higher than the customer closest to the switch.<sup>90</sup> Over time, strategies which depended on shifting costs onto businesses and long distance users were employed to maintain affordable rates for local residential service. Price averaging and supports are described in the next section.

In the years from 1940 to 1980 subscribership went from 37% of households to 90%.<sup>91</sup> At the same time, the real price of local service declined 55%.<sup>92</sup> Long-distance prices fell even more sharply. From 1950 to 1978, the Consumer Price Index (CPI) rose 171%, but the price of long distance rose only 8.6%.<sup>93</sup>

---

<sup>90</sup> For many years, mileage charges reflecting distance from the switch were added to the cost of local service for outlying customers. See comments of Washington Independent Telephone Association, WUTC docket No. UT-971121, p. 8.

<sup>91</sup> Kellogg at 453.

<sup>92</sup> Id.

<sup>93</sup> Id. 452.

Today, subscribership, often referred to as penetration rate, is at about 95% nationally.<sup>94</sup> In Washington it is 97%.<sup>95</sup> A case can be made that at 97% penetration, nearly everyone has access to the network.

Affordability has, arguably, been achieved with a 97% penetration rate. In order to foster universal service, both Washington and the FCC operate programs for low-income citizens who need assistance paying their basic telephone bill. The Washington Telephone Assistance Program (WTAP) is administered by the Department of Social and Health Services (DSHS) and is funded by a \$0.13 monthly excise tax per access line which appears on customer telephone bills.<sup>96</sup>

#### The Major Sources of Support for Universal Service

High-cost local exchange companies in Washington, serving small numbers of geographically dispersed customers, can receive over 60% of their revenue requirements from the supports described below (a high-cost company is one whose loop cost exceeds 115% of the statewide average loop cost). GTE Northwest (GTE) and U.S. West Communications (USWC) do not receive all the same supports,<sup>97</sup> but

---

<sup>94</sup> Monitoring Report, CC Docket No. 87-339 (May, 1997), p. 14, as prepared by Federal and State Staff for the Federal-State Joint Board in CC Docket No. 80-286.

<sup>95</sup> Initial Comments of Public Counsel, Washington Attorney General, p. 3, In Re Petition for Rulemaking by Washington Independent Telephone Association to Adopt a Definition of Basic Telecommunications Service WUTC Docket No. UT-950724.

<sup>96</sup> See RCW 80.36.410 - 475

<sup>97</sup> GTE receives a relatively small amount of federal and state direct financial support as a result of its 1995 purchase of former ConTel exchanges. USWC does not receive any explicit



instead use average pricing--all customers paying the same, or very similar, amount for basic service--so that their high-cost customers are supported.<sup>98</sup>

Several major forms of support have developed over a period of decades. Described below are 1) price averaging; 2) different pricing of residential and business lines; 3) supports from long distance calling revenues and the "separations process," which allocates costs between interstate and intrastate use; 4) contributions from access charges; and 5) the universal service fund (USF). The USF is the only explicit support; the rest can be regarded as implicit supports. (As described later, the 1996 Act requires elimination of implicit supports.)

#### Price Averaging for Large Incumbent Companies

The primary method of spreading the reach of the network and making service affordable to all is price averaging. Price averaging occurs when local exchange telephone companies (LECs), serving large numbers of customers in urban areas, charge all customers the same or similar prices for basic service on a statewide basis. For those customers in low-cost areas, the price is above the cost of service; for those in high-cost areas, the price will be below the cost of service. This pricing scheme is presently used by GTE and USWC in Washington.

---

high-cost fund support.

<sup>98</sup> The basic local rate is the same or similar for customers of high-cost companies as well, but that is not the major source of support for higher-cost customers served by those companies as it is with price-averaging for high-cost customers of the much larger GTE and USWC.

This pricing scheme is not competitively neutral and will hinder competition in both urban and rural areas. Continued use of this implicit support for universal service means companies which use price-averaging will be at a competitive price disadvantage in urban areas (in order to support high-cost rural customers, their prices will be higher than those of new entrants in urban markets) and they will have a competitive price advantage in rural markets (the price they can offer high-cost customers will be lower than a new entrant in the rural area that does not have low-cost urban customers). Fair competition cannot be introduced under these circumstances.<sup>99</sup>

#### Business Rates Higher Than Residence Rates

In Washington, all regulated companies charge more for a basic business line than for a residence line. For most companies, the price ratio is approximately two-to-one.<sup>100</sup>

However, cost studies consistently show the difference in cost of providing business

---

<sup>99</sup> It is important to note that 47 U.S.C. 254(b)(3) states the principle that rates in urban and rural areas should be comparable for comparable services. This principle is, arguably, a limit on de-averaging of prices.

<sup>100</sup> Nationally, the single line business rate is 2.3 times the average residential rate. The 1993 nationwide average business rate was \$38.55 and the nationwide residential rate was \$16.75. Weinhaus, Carol, "The Shell Game: Options for Universal Service," Telecommunications Industries Analysis Project, Boston, October 2, 1997, p. 2 and n. 7, citing Carol Weinhaus, Sandra Makeeff, et al., "Loop Dreams: The Price of Connection for Local Service Competition," Presentation at the July, 1995 National Association of Regulatory Utility Commissioners (NARUC) Meeting, San Francisco, CA, Telecommunications Industries Analysis Project, July 21, 1995, figure 8, page 16.

service and residence service is much less than that ratio.<sup>101</sup> Business service may be less costly because multiple lines are often provided and businesses are often nearer to telephone company facilities.

### Contributions from Toll; The Separations Process

Another major source of contribution has been from long-distance toll, particularly interstate. In 1980, when only 8% of calls were interstate, fully one-quarter of local loop costs were assigned to interstate long-distance. Prior to the break-up of AT&T in 1984, nearly one-half of its Long-Lines Division's revenue, about \$11 billion dollars a year, went back to the local Bell operating companies.<sup>102</sup> Since the break-up of AT&T, the contribution from long-distance to local service has declined somewhat, but there is still a contribution which is reflected in higher-than-cost pricing for long distance calls.<sup>103</sup>

The higher contribution from interstate long distance comes through the FCC "separations process."<sup>104</sup> In order to determine the amount of money interstate carriers must pay for the use of the local telephone network, it is necessary to allocate a portion of the cost of the local network to interstate use. Historically, the amount of

---

<sup>101</sup> See, for example, Fifteenth Supplemental Order, WUTC Docket No. UT-950200, p. 107.

<sup>102</sup> Kellogg at 452-53.

<sup>103</sup> "In absolute terms, the size of the transfer payments from long-distance carriers to local companies did not decline, however; the percentage allocation had been frozen, but that percentage was applied to a steadily rising base of investment." Kellogg at 484-85 (Emphasis in original).

<sup>104</sup> See 47 CFR Parts 36 and 69.

the cost of the local network allocated to interstate use has been substantially higher than is indicated by the actual level of interstate traffic.<sup>105</sup> The result is that interstate carriers pay for more of the local network than they use. This was a conscious decision made by states, the FCC and companies for the purpose of promoting network growth and has been in place since the 1940's. For decades, state utility regulators particularly liked this method, which kept them from having to increase local rates.

### Access Charges

Access charges are paid by one company to another for transport and switching toll calls over the other's network. At both state and federal levels, access charges are generally billed and calculated on a per-minute basis (customers do not see access charges on their bills). Access charges are priced well above their economic cost.<sup>106</sup> In Washington, there is also evidence of economies of scope as seen in the different access charge rates for large companies versus small ones.

An example demonstrates the difference. When an intrastate, interexchange call is initiated by a USWC customer who uses MCI for long distance, USWC charges MCI 1¢ for initiation of the call and 2¢ to switch the call from the local network onto MCI.

---

<sup>105</sup> 3.3% of local loop costs were assigned to interstate federal accounts for every 1% of interstate calling under the so-called Ozark Plan adopted by the states and the FCC in 1970. The allocation of interstate costs at triple the rate indicated by usage resulted in higher long distance rates. See Kellogg at 451.

<sup>106</sup> "It is not a matter of dispute that access charges greatly exceed the incremental cost of access." Fifteenth Supplemental Order, WUTC Docket No. UT-950200, p. 110.

The same call initiated by a customer of a small, independent company would result in a 1¢ charge to MCI for initiation but a 5¢ charge to switch the call onto MCI's network. The small companies charge two and one-half times as much for the same operation. The difference in charges permitted for terminating an in-coming intrastate call to a customer served locally by a small company are even greater, with the small company collecting a total of 10¢ for both switching and termination and the large company collecting only 4¢.<sup>107</sup>

The FCC has recently restructured and lowered interstate access charges<sup>108</sup> and many payors of access charges are asking states, including Washington, to restructure and lower intrastate access charges.<sup>109</sup> The WUTC in 1996 lowered access charges for U S West by 45 percent.<sup>110</sup> U S West appealed this order and the Washington Supreme Court upheld the Commission.<sup>111</sup>

---

<sup>107</sup> This is a representative example; tariffs differ from company to company.

<sup>108</sup> ¶ 35, First Report and Order, In the Matter of Access Charge Reform, CC Docket No. 97-158 (May 16, 1997).

<sup>109</sup> See WUTC Docket No. UT-970325, AT&T Petition, and WUTC Docket No. UT-970653, MCI complaint against GTE. The latter case was dismissed because the Commission wants to approach access charge reform on an industry-wide basis rather than on a piece-meal basis.

<sup>110</sup> Fifteenth Supplemental Order, WUTC Docket No. UT-950200, p. 110-17.

<sup>111</sup> US WEST Communications, Inc. v. Washington Utilities and Transportation Commission, Slip Opinion No. 64822-1, Dec. 24, 1997. See also the companion case US WEST Communications, Inc. v. Washington Utilities and Transportation Commission, Slip Opinion No. 64822-2, Dec. 24, 1997. The reduction will go into effect after the Commission issues an implementing order based on the Supreme Court decisions.

Continued use of higher than economic cost access charges is not sustainable in a competitive market. New entrants will lure customers with high toll usage leaving the incumbent company with customers that do not generate the large amounts of access revenue they need to generate sufficient revenue to maintain affordable basic monthly rates. Competitive neutrality and continuation of universal basic service at affordable rates necessitates replacement of support through above-economic-cost access charges with alternative support mechanisms (described later in this section) which are specific, predictable and sufficient.

#### State Universal Service Funds

Most states have a universal service fund to support high-cost incumbent local exchange companies (also referred to as ILECs). In Washington, there is a surcharge of \$0.00152 on each minute of intrastate long distance access (this does not appear on customer bills).<sup>112</sup> This amounts to almost \$9 million dollars annually, which is used to support companies that have loop costs that exceed 115% of the state-wide average loop costs. Most of these companies are small and serve rural or semi-rural areas.<sup>113</sup>

The amount of this fund in Washington represents the smallest contribution compared

---

<sup>112</sup> See WUTC Docket No. U-85-23, Eighteenth Supplemental Order (Dec. 30, 1986) and Washington Exchange Carrier Association tariff WN U-1, Eighth revision of Sheet No. 9 (October 1, 1996). See also WAC 480-80-047 and 048.

<sup>113</sup> Recipients of state universal service are Asotin, Cowiche (recently sold to PTI), Hat Island, Hood Canal, Inland, Kalama, Lewis River, Mashell, McDaniel, PTI, Pioneer, St. John, Tenino, Toledo, Western Wahkiakum, Whidby, and Yelm. GTE receives funds from the National Exchange Carrier Association (NECA) universal service fund for the exchanges it purchased from ConTel in 1995; United (SPRINT) also receive NECA support. Neither Lewis River nor McDaniel will receive funds from NECA in 1998.

to the support represented by price-averaging over three million access lines for GTE and USWC and the contribution from access charges, explained above.

### Changes Required by The 1996 Telecommunications Act

The passage of the 1996 Telecommunications Act and the subsequent decisions of the FCC have profound effects on mechanisms for supporting universal service. Unlike the 1934 Act, the 1996 Act uses the phrase “universal service,” describes it, and calls for its continuation.<sup>114</sup> Requirements are placed on the FCC and the states to make efforts to define and fund affordable, high quality basic services in rural, high-cost and insular areas and to maintain programs for low-income customers.<sup>115</sup> At the same time, as described below, states are to promote competition by, among other things, eliminating the traditional, market distorting practices which have historically provided support for universal service.<sup>116</sup> This change, if accomplished properly, will

---

<sup>114</sup> 47 U.S.C. 254

<sup>115</sup> These requirements are described in Section 1 of this report.

<sup>116</sup> 47 U.S.C. 254(e). “Any such support should be explicit and sufficient to achieve the purposes of this section.” This section applies only to federal universal support mechanisms. In determining whether Congress intended states to abandon implicit supports, it is important to look at subsection (f), outlining state authority, and to the Joint Explanatory Statement of the Congressional conferees. Subsection (f) requires that state support result from “specific, predictable and sufficient mechanisms...” The Congressional conferees state that “[t]o the extent possible, the conferees intend that *any* support mechanisms continued or created under new *section 254* should be explicit rather than implicit as many support mechanisms are today.” Additionally, the conferees stated “[i]n keeping with the conferees’ intent that *all* universal service support should be clearly identified, [254(e)] states that such support should be made explicit and should be sufficient to achieve the purposes of new section 254.” See Joint Explanatory Statement at 131 (emphasis added).

The subsection (f) requirements for specificity and predictability combined with the conferees’ references to *section 254* and statements that “any” and “all” support mechanisms should be explicit rule out, for example, continuing to use substantially higher than economic cost access charges as a means of support for high-cost companies. Higher than economic

result in no net increase in total spending on telecommunications.<sup>117</sup> Universal service is supported today and this report does not recommend support for additional services which would require increased consumer spending.

### Generating Support

In some combination, Washington must use new and existing support mechanisms to generate sufficient support to continue universal service. The level of support must be sufficient to ensure reasonably comparable telecommunications services between rural and urban areas and sufficient to ensure service at reasonably comparable rates for urban and rural customers.<sup>118</sup> In addition, the rates charged must be affordable. The WUTC believes, based on the high penetration rates and the relatively limited use<sup>119</sup> of the State's telephone assistance program for low income consumers, that current

---

cost access charges vary with minutes of use so they do not produce specific and predictable support. Other implicit support mechanisms employed by states may also have to be abandoned. It is the interpretation of the WUTC that, taken together, subsections (e) and (f) and the Joint Explanatory Statement should be read to require that state universal service support mechanisms should also be explicit. However, this does not mean that support must be provided through an end-user surcharge. When read with 254(b)(4), the conclusion must be that support for universal service is to come from equitable and nondiscriminatory contributions from providers of telecommunications services (See n.25, supra, and the recommendation for assessment of contributions from carriers, infra).

<sup>117</sup> Weinhaus concurs, but notes that there will be increased cost for the schools, libraries and rural health care program administered at the federal level. See Weinhaus, Carol, "The Shell Game: Options for Universal Service," Telecommunications Industries Analysis Project, Boston, October 2, 1997, p. 18 and n.16.

<sup>118</sup> 47 U.S.C. 254(b)(3)

<sup>119</sup> The Department of Social and Health Services has informed the WUTC staff that about 25% of those eligible for assistance in paying their telephone bill enroll in the program.



rates are affordable. There is no need to increase telephone rates to support universal service.

### Contributions from Telecommunications Carriers

The TCA requires every telecommunications carrier that provides intrastate telecommunications services to contribute, in an equitable and nondiscriminatory manner, to state support mechanisms.<sup>120</sup> Telecommunications services means offering telecommunications for a fee to the public, or to such classes of users as to be effectively available to the public.<sup>121</sup> States do not have the authority possessed by the FCC by virtue of 47 U.S.C. 254(d) to seek contribution based on “the public interest” from providers not covered by the definitions of telecommunications carrier and telecommunications services. Consequently, Washington’s list of required contributors must be narrower than the expansive list of providers adopted by the FCC.<sup>122</sup>

### Required Contributors

Under the definitions described above, all wireline and wireless carriers must

---

<sup>120</sup> 47 U.S.C. 254(f). N.B. The WUTC probably lacks authority under statute and case law to impose a contribution requirement on providers of telecommunications services. See WITA v. TRACER, 75 Wn. App. 356, 880 P.2d 50 (1994).

<sup>121</sup> 47 U.S.C. 153(46). Pay phone service providers are not included in this definition due to the exemption provided for aggregators in the definition of telecommunications carrier. See 47 U.S.C. 153(44).

<sup>122</sup> An argument can be made that Section 254(f) gives states the authority to adopt regulations consistent with the FCC regulations and thereby include the broader list of providers.

contribute to universal service support mechanisms on an equitable and nondiscriminatory basis. Additionally, WATS,<sup>123</sup> toll free, 900, MTS,<sup>124</sup> private line, paging, telex, telegraph, video and satellite services should contribute.<sup>125</sup>

Private service providers are included as contributors to federal support mechanisms based on the FCC's permissive authority to include otherwise exempt providers because it is in the public interest to do so. The FCC found that competitive neutrality requires contributions from private service providers that, from time to time, sell or lease capacity on their networks. If contributions were not sought, the private service provider would have a competitive advantage over a common carrier offering the same services with an obligation to contribute.<sup>126</sup>

The Federal-State Joint Board reached the same conclusion as the FCC but did not depend on the permissive authority. The Joint Board concluded that where a private service provider sells or leases capacity<sup>127</sup> it is providing services "to such class or

---

<sup>123</sup> Wide Area Telephone Service`

<sup>124</sup> Message Telecommunications Service, also called DDD for Direct Distance Dial.

<sup>125</sup> ¶ 780, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>126</sup> ¶ 794-96, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>127</sup> It is the sale or lease of capacity that should trigger a requirement to contribute to universal service support with the amount contributed based on the revenue associated only with the sale or lease of excess capacity. Where a private service provider makes service available to its company, its affiliates or as part of a consortium and do not significantly impact the public switched telephone network, there should be no requirement

classes of users as to be effectively available directly to the public.”<sup>128</sup> The Joint-Board relies on the definition of telecommunications service to reach the same conclusion as the FCC.

Internet providers are not included in the list of contributors because the FCC has determined that information (internet) providers are not telecommunications providers.<sup>129</sup> Internet providers are not considered telecommunications providers because their service is to provide information, although that is accomplished with the use of the telephone network.

**Option 1: Washington requires contributions from the same telecommunications carriers identified by the FCC, except for private service providers.**

**Option 2: Washington requires contributions from the same telecommunications carriers as the FCC, including private service providers.**

**Option 3: Washington requires contributions from the same telecommunications carriers as the FCC, including private service providers and internet service**

---

to contribute. An exception would be a consortium without any commonality of members other than a need for telecommunications services, in which case the consortium would essentially be a common carrier and should contribute.

<sup>128</sup> ¶788, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996), quoting 47 U.S.C. 153(46).

<sup>129</sup> ¶ 83 and 788-90, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

providers.

**Recommendation:** Washington should require contributions from the same telecommunications carriers as the FCC, including private service providers which sell or lease capacity. This option provides the broadest list of providers without attempting to include internet service providers (which we recognized do not provide telecommunications services in part 1 of this report). Like the Joint Board, we recommend inclusion of private service providers which sell or lease capacity. This capacity is made available in the same market where common carriers make available their services to the public. It is true that the service that private service providers offer will never attract the attention of the general public as that term is used in its broadest interpretation, but the public that is interested in the high-speed data services offered by common carriers is the same public that would be interested in purchasing high-speed data service from private service providers. For this reason, we believe the Joint Board accurately concluded that private service providers selling or leasing capacity are offering telecommunications services to the public. Not only is the Joint Board's conclusion correct, it also has the virtue identified by the FCC in the rationale for its decision. Private service providers contributing to the universal service support mechanisms will have no competitive edge over common carriers making the same contributions based on sales of identical services.

**Legislative Action:** The legislature must give the WUTC authority to create and operate a universal service fund if this recommendation is to be implemented.



### Basis for Assessing Contributions

The Joint Board and the FCC considered (1) gross revenue, (2) gross revenue net of payments to other carriers, (3) revenues derived from end-users, and (4) per-minute or per-line charges as factors on which assessments could be based.<sup>130</sup> The FCC concluded that revenues derived from end-users is the best basis<sup>131</sup> while the Joint-Board determined that the most competitively neutral and easily administered basis is gross revenues net of payments to other carriers.<sup>132</sup> The Joint Board and the FCC rejected both gross revenues and per-minute or per-line charges as options because the former may result in double payments on some revenue and because the latter could not be administered without complicated “equivalency ratios” reminiscent of the existing complicated formulas in use at present.

### Gross Revenues Net of Payments to Other Carriers

The Joint-Board selected gross revenues<sup>133</sup> net of payments to other carriers as the preferred basis because it is the most competitively neutral, because it requires

---

<sup>130</sup> ¶ 803-06, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996) and ¶ 843-54, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>131</sup> ¶ 848-50, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>132</sup> ¶ 807-09, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

<sup>133</sup> Gross revenue would include all intrastate and international revenue attributable to customer telecommunications activity in Washington State.

payments only when value has been added and because it is easiest to administer.<sup>134</sup> It is competitively neutral because it does not advantage vertically integrated companies over specialized providers or those that purchase wholesale. Payments are only made when value is added because payments to other carriers are subtracted from gross revenues. The net amount, or value-added, is a proxy for the additional activity the providers contribute to the public switched telephone network. This basis is easy to administer because providers already track gross revenue for the purpose of contributing to TRS<sup>135</sup> and they already track, for a variety of business and accounting purposes, payments to other carriers.

#### Revenues Derived From End-Users

The FCC selected revenues derived from end-users as the basis for assessing universal service support for reasons of competitive neutrality and ease of administration.<sup>136</sup> It is administratively easier, in the FCC's opinion, because wholesalers will not have to file revenue information with the fund administrator; but the FCC does acknowledge that it will have to develop a new database of end-user revenue information.<sup>137</sup> The major distinction which the FCC draws between revenue derived from end-users and

---

<sup>134</sup> Id.

<sup>135</sup> TRS is the acronym for Telephone Relay System which provides access to the telephone network for hearing-impaired persons. Washington has a program to support the devices necessary for hearing-impaired persons to use the PSTN. It is authorized under RCW 80.36.195 and RCW 43.20A.725; \$0.14 cents is collected each month from telephone subscribers to support this service.

<sup>136</sup> ¶ 844, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>137</sup> Id. ¶ 848.

gross revenue net of payments to other carriers is that the latter may result in support contributions being collected from some intermediate carriers with long-term contracts which would preclude raising rates to cover the cost of universal service contributions.<sup>138</sup> The FCC did not indicate how many carriers might be so affected or how much money would be involved.

In comparison, the Joint Board rejected using revenues derived from end-users because it will result in no contributions from wholesalers in violation of the requirement that all carriers contribute to universal service support mechanisms.<sup>139</sup> The Joint Board also gave cognizance to the concern that the use of revenue derived from end-users as a basis for assessing contributions could lead to surcharges on customer bills<sup>140</sup> rather than the TCA requirement that carriers contribute.<sup>141</sup>

### Gross Revenues

Contributions based on gross revenues were suggested to both the Joint Board and the FCC and both declined to choose this as a basis for assessment of contributions to universal support. The chief reason is that it would result in double payments when services are sold wholesale before they are sold to consumers. The wholesale seller of

---

<sup>138</sup> Id. ¶ 850.

<sup>139</sup> ¶ 805, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996). See also 47 U.S.C. 254.

<sup>140</sup> A line-item tax on customer bills is advocated by many telephone companies as the best method to support universal service.

<sup>141</sup> Id.



the service and the reseller would each have gross revenue which, when taken together, would be approximately double the value of the service.<sup>142</sup> Their contributions would be made for the same service and the double counting results.

#### Per-Line or Per-Minute Charges

Again, both the Joint Board and the FCC rejected per-line or per-minute charges as factors on which contributions should be based.<sup>143</sup> Each had the same reason for rejecting these options. Many telecommunications services are not sold per-line or per-minute. Alternate methods of charging have been growing in popularity as combinations of services are packaged and sold together. In order to determine how many minutes or lines were purchased it would be necessary to establish complex allocation formulas which will not move the telecommunications industry in the direction of explicit and specific supports mechanisms for universal service. As a result, there would be great administrative difficulty if these non-revenue-based measures were chosen. At the same time, non-revenue-based measures would not be competitively neutral because of the uncertainty that assessments for contributions would be fairly derived for all types of carriers with their varied pricing schemes.<sup>144</sup>

---

<sup>142</sup> ¶ 804, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996) and ¶ 845, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>143</sup> ¶ 806, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996) and ¶ 852, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>144</sup> Id.

**Option 1: Washington assesses contributions for universal support on gross revenues net of payments to other carriers.** This option is competitively neutral, easy to administer and requires a contribution only when value is added. It does not favor vertically integrated companies over specialized carriers and wholesalers, even though it results in contributions from those carriers.

**Option 2: Washington assesses contributions for universal support based on revenues derived from end-users.** This option will avoid assessing contributions on intermediate carriers with long-term contracts who are thus unable to build contributions to universal service into their rates while their competitors without long-term price commitments can adjust their rates upward to reflect their contribution. It is not particularly administratively burdensome, but it will require development of a new database. It will result in wholesale carriers making no contributions, in apparent contravention of the TCA requirement that all carriers contribute on an equitable and non-discriminatory basis. It may increase the possibility that contributions are recovered by surcharges on customer telephone bills.

**Option 3: Washington assess contributions for universal service support based on gross revenues.** This option is simple to calculate and the necessary information is already available. However, where services are sold at wholesale one or more times, a double contribution will result each time there is a resale.

**Option 4: Washington assess contributions for universal service support based on per-line or per-minute (non-revenue-based) factors.** This option will require

significant administrative effort and complex, but not necessarily accurate, calculations of equivalencies when service is not sold on a per-line or per-minute basis. It may inhibit the increased packaging of services for sale other than on this basis.

**Recommendation: Washington should base assessments for contributions to universal service on gross revenues net of payments to other carriers.** This option is competitively neutral because all carriers, wholesale and retail, large, small or specialized, contribute on the same basis. It does not advantage vertically integrated companies. This option avoids double counting; contributions are required only when value is added and when activity on the telephone network is increased. It is easy to administer for large and small companies alike because carriers already collect the information necessary to make the calculations.

**Legislative Action:** The legislature must give the WUTC authority to create and operate a universal service fund if this recommendation is to be implemented.



#### Disbursement of Universal Service Funding--Making a Market

The TCA's emphasis on competition is intended to result in customers, including customers in high-cost locations, having a choice among several providers of local telephone service. Competitive local exchange carriers (CLECs) are expected to

challenge incumbent local exchange carriers (ILECs) for customers. This is already occurring in Washington; however, the competition is occurring only in urban and suburban areas because the number of potential customers who can be served at relatively low cost is far greater than in rural areas.<sup>145</sup>

If universal service is to be maintained, support is necessary to induce CLECs to compete in rural areas as well as to retain ILECs in those areas. Absent this support, companies will shun high-cost customers while chasing low-cost customers. They will also place new, more efficient infrastructure in areas full of low-cost customers and not maintain, let alone expand, infrastructure in areas where high-cost customers reside and work. The Commission, through universal service support disbursements, should make a market for the competitive provision of basic telephone service where none would exist without state intervention.

Competitive Neutrality--Universal Service Dollars Should Follow High Cost Customer Locations, Not Companies

In order to maintain universal access and affordability, and at the same time bring choice to all customers in all areas, the TCA is designed to maintain support and assign the support to the high-cost customer location regardless of the provider. The Commission must structure a universal service program that will support defined basic services and not discourage CLECs from entering into high-cost markets and

---

<sup>145</sup> As noted earlier in n. 56, the current market share held by CLECS remains small.

thereby denying customers choices for local service provision.<sup>146</sup> The way to accomplish this is to associate the support with the high cost customer rather than with the ILEC serving the customer, as it is today.

### A Profound Change

Universal service support which follows the customer represents a profound change from the present practice of supporting high-cost monopoly companies. It will benefit customers of price-averaged companies (non-rural ILECs) because those companies may reduce rates in urban areas in order to compete with CLECs.<sup>147</sup> At the same time, the ILEC is still assured of sufficient revenue to serve consumers in high-cost locations who continue to be their customers. It will also benefit customers of rural companies because it promotes competition, the necessary ingredient to spur increased attention to customer service and deployment of new technology. Rural companies will continue to receive necessary support so long as they provide customers with good service and new technology.

### Eligible Telecommunications Carriers and the Obligation to Serve

Incumbent local exchange companies and new competitors may request designation

---

<sup>146</sup> The Joint Board and the FCC concluded that portability of support will aid the entry of competition in rural areas. See ¶ 311, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>147</sup> At present, USWC has a proposal before the Commission which would raise basic residential rates nearly \$3.00 per month. See Docket #UT-970766

as eligible telecommunications carriers (ETC) under the TCA.<sup>148</sup> This is the prerequisite to collect universal service funds for serving customers in high-cost locations. In Washington, all incumbents have filed for ETC status,<sup>149</sup> which eventually will lead to collecting universal service funds for serving areas which they presently serve with the support of implicit support (primarily price averaging for USWC and GTE; through federal and some state high-cost support for the smaller companies). This is one way in which implicit support will be transformed into explicit support.

Not all competitive local exchange carriers (CLECs) will be eligible to receive universal service. Many CLECs may not seek this designation from the Commission; they may be content to make money serving special types of customers in urban areas where cost conditions do not necessitate high-cost support.

Those CLECs that want to receive universal service support will ask for ETC designation for those service areas where they believe the cost to provide service will be less than their cost of providing the service.<sup>150</sup> Ratepayers, ILECs and other

---

<sup>148</sup> See 47 U.S.C. 214(e) and 47 U.S. C. 254(e).

<sup>149</sup> Each incumbent filed for the entire area which it now serves, with the exception of USWC. USWC filed for ETC designation in several metropolitan exchanges but did not file in any of its high-cost exchanges. Like any carrier, it may file in the future for ETC designation. One CLEC, US Cellular, filed for several USWC rural exchanges and three GTE rural exchanges.

<sup>150</sup> The Commission has made ETC designations in 1997 to ensure continued receipt of federal universal service funds in 1998 for incumbent local exchange companies. This action was required by the FCC decision to continue providing federal support in 1998 only to those companies designated as ETC s by

CLECs will expect the Commission to avoid providing support above the cost of service. Ideally, the Commission will set a support level which will encourage CLECs to enter the high-cost markets and at the same time encourage innovation in service and cost saving efforts on the part of the ILEC and CLECs.

#### The Size of the Fund

The size of the fund needed to support universal service will depend upon the services supported, the number of lines supported, the actual cost of the supported lines, a determination of affordability, and the amount paid by consumers for their individual lines.

#### Services and Lines to Be Supported

The amount necessary to support universal service depends on the services and number of lines to be supported. In section one, nine services were recommended as basic services which should be supported by universal service support mechanisms. Those services are available today throughout Washington and it will not increase the necessary level of support if they are chosen as the basic services to be supported. If additional services are added to the list, internet access or call waiting for example, the cost of support will increase and the size of the fund will have to increase.

The same is true with the number of lines which are supported. At present in Washington, all lines, business and residential, second, third and even fourth lines, are

---

their state commission not later than December 31, 1997. ETC status is also necessary for eligibility to collect federal Lifeline (low-income) program funds.

supported if they are provided by a high-cost company or if they are provided by a price-averaged company and are in a high-cost location. As a result, Washington's total expenditure on telecommunications does not need to be increased to continue supporting all telephone lines.<sup>151</sup>

The FCC, however, appears ready to support only one residential line per household and one business line.<sup>152</sup> The FCC is taking comments on methods for attempting to determine which residential lines are "primary" and which are not so that support will only be provided for the least number of lines necessary to guarantee minimum access to the telephone network for public health, safety and emergency purposes. A decision by the FCC to support only one residential and one business line would represent a reduction in the present level of federal support.<sup>153</sup> Not only would a

---

<sup>151</sup> The manner in which support is collected and disbursed will change; if a new state fund is created, it will be larger than the present fund, however it will be made up of dollars that once were funding universal service in hidden, implicit ways not apparent to consumers or policy makers. Total state telecommunications spending need only increase if added services are supported.

<sup>152</sup> See ¶ 296, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997), and ¶ 5 to 22, Notice of Proposed Rule Making (NPRM) In the Matter of Defining Primary Lines, CC Docket 97-181 (September 4, 1997). While rural carriers are supported almost entirely by NECA (now succeeded by the Universal Service Administrative Corporation) and support continues based on embedded costs, the FCC's plan to limit the number of lines to be supported only affects non-rural carriers. This will, presumably, change when rural carriers are moved from embedded costs to proxy models for the determination of support.

<sup>153</sup> This would represent a reduction because the FCC, like the states, currently supports high-cost companies not high-cost customers. Federal support funds are paid to high-cost companies based on, inter alia, the number of access lines. Companies report all their lines, including all second residential lines



reduction of federal support result, it appears that the FCC envisions a considerable administrative effort will be necessary to verify and enforce their effort to limit support to one residential line.<sup>154</sup> In comparison, the current mechanisms support all the lines of high-cost telecommunications carriers and, while the calculations involved are administratively burdensome, at least they do not require any intrusion on customer premises to determine the number of telephone lines.<sup>155</sup>

The Joint Board recommended support for one residence line and one business line as well.<sup>156</sup> The Joint Board considers the needs of a single-line business customer to be similar to that of a residence in that they may need access to public health and safety services and for employment reasons.<sup>157</sup> However, the Joint Board recommends that support for the single-line business customer be less than that for a residential customer in the same high-cost area and the FCC is silent on this.<sup>158</sup>

Those who have opposed support for business lines have noted that they do not serve the same purpose as a residential line; that businesses make decisions about where

---

and all multiple lines going to businesses. Federal support funds are therefore paid for all lines, not just so-called primary lines.

<sup>154</sup> Id. ¶ 17 to 22.

<sup>155</sup> It will not be easy, without inspection or questioning, to determine, for example, if a family has multiple lines under names of different family members.

<sup>156</sup> ¶ 85 to 92, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

<sup>157</sup> Id. ¶ 91.

<sup>158</sup> Id. ¶ 92.

they locate based on costs, including cost of telecommunications; and that the cost of telecommunication services are a cost of doing business which can be deducted in tax calculations. With respect to location, many noted that, for example, a business locating in an urban area may have low-cost telecommunications services but will pay higher real estate costs than a business in most rural areas, thus offsetting the difference in cost of telecommunications services.

A second residence line is not needed in order to have basic services, including access to public health and safety services. A second line is generally a convenience, whether it is for the use of a child or for internet or FAX use without the necessity of unplugging and switching the primary line. A second, or third or even fourth line, represents an economic choice rather than a necessary household expenditure.

The size of the fund needed to support universal service, as stated above, depends on the services to be supported and the number of lines. Washington does not have to increase total telecommunications spending in order to maintain the status quo. At the same time, if the services or lines to be supported were reduced, the size of the fund could be reduced, but only by driving up the price of second lines to something approaching their actual cost. In Washington, that ranges from below \$10.00 per month to as much as \$325.00 per month.

#### The Cost of Supported Lines

The biggest determinate of the size of the fund will be the cost of the supported lines.

The cost of local loops varies widely from urban to rural, primarily based on distance, but also on geography. With over three million lines in Washington, it is important to base support on as accurate a measure of loop cost as can be determined. Three ways to determine cost of have been proposed: measure the cost of every individual line, measure the average cost of lines in an exchange, and measure cost based on a model.

#### Measure Cost of Individual Lines

If the cost of each individual line were measured, that would produce the most accurate basis for determining the level of support necessary for provision of basic service. Unfortunately, because of the millions of lines, this is not a reasonable undertaking. It is not possible to measure the individual cost of over three million lines.

#### Measure Cost at the Exchange Level

Unlike individual measurements, it is possible to measure the average cost of all the lines contained in a telephone exchange. (See exchange map included with this report.) This data could be developed, but because it is average cost data it is an inexact measure and its use will result in below cost support to a company which serves the higher cost loops in an exchange and above cost support for a company which serves the lower cost loops in the same exchange.<sup>159</sup>

#### Measure Cost By Proxy Model

---

<sup>159</sup> As time goes on, lines can be geo-coded at the census block group (CBG) level to more precisely locate them in relation to the local exchange central office. See n.148, infra.

The greatest effort invested into the several competing cost proxy models is going into modeling loop length in order to determine loop cost. This modeling takes place at a much smaller level than the exchange. Some are modeling at the census block group (CBG)<sup>160</sup> level and others are using grids 1500 feet square. Both, when completed, will be much more accurate than average loop cost in an exchange.

### Affordability and Prevention of Subsidy

The TCA requires that universal service be available at rates that are affordable.<sup>161</sup> It also requires that universal service supports do not subsidize other services subject to competition.<sup>162</sup>

In order to set the support per line, it is necessary to subtract from the cost either the price of local service or the average revenue per line.<sup>163</sup> The choice depends on which

---

<sup>160</sup> "A census block group generally contains between 250 and 550 housing units, with the ideal size being 400 housing units." 1990 Census of Population, General Population Characteristics, Washington. Washington D.C.: U.S. Dept. of Commerce (1992), p. A-4.

<sup>161</sup> 47 U.S.C. 254. Earlier in the report, in the discussion of penetration rates and enrollment in the Telephone Assistance Program for low-income consumers, we concluded that present rates are affordable.

<sup>162</sup> 47 U.S.C. 254(k). States are required to establish any necessary cost allocation rules, accounting safeguards and guidelines to ensure that universal service supports bear no more than their reasonable share of joint and common costs used to provide supported services.

<sup>163</sup> The calculation of average revenue per line will be based on the basic monthly service charge, discretionary services charges (e.g. call waiting, call forwarding, caller I.D. and similar services), intrastate and interstate access charges and other telecommunications revenues.

factor, the cost of basic service or revenue per line, results in affordability while preventing subsidy of services subject to competition. In order to avoid too great a subsidy for high-cost customers at the expense of low-cost customers, it is necessary to approximate the value of providing service as closely as possible.

#### Price of Local Service and Average Revenue Per Line

The value to a carrier of providing service is average revenue per line. If they can provide service to a customer at a cost less than their revenue, they make a profit. In a situation where support is provided, then the carrier makes a profit if the average revenue per line combined with support are greater than their cost of providing service. If the support is too high, a windfall results; if it is too low, carriers will not compete for customers in high-cost areas.

In order to determine the amount of support needed by a carrier to make it profitable to provide service in high-cost locations, one can compare either the price for basic monthly service or the average revenue per line to the cost of providing service. Because a majority customers make some toll calls or subscribe to some features (e.g. call waiting, voice mail), revenue per line is always greater than the price of local service. In order to avoid windfalls and encourage efficiency and cost-cutting, subtracting average revenue per line from the average cost is necessary to determine the support level. Use of average revenue per line also prevents any subsidy of competitive services with universal service supports in compliance with 47 U.S.C. 254(k) and will result in a significantly smaller fund size than would be the case if the price of local service is subtracted.

**Option 1: Washington chooses to support all lines, to determine cost of lines with a forward looking economic cost proxy model, and to determine support by subtracting the average revenue per line from the cost.** This option will promote competition, efficiency and cost-cutting as a way of reducing telecommunications cost without reducing the level of telecommunications service presently supported in Washington. (Embedded costs would be used for rural companies until such time as both the FCC and the Commission move to a cost proxy model for rural carriers.)

**Option 2: Washington chooses to support only one residence line and one business line, to determine cost of lines with a forward looking economic cost proxy model, and to determine support by subtracting the average revenue per line from the cost.** This option will promote competition, efficiency and cost-cutting as a way of reducing telecommunications cost and will reduce the cost of support by limiting the number of supported lines. At the same time, for those who choose to keep additional lines, the cost may rise significantly. If the price of second lines in rural areas rise significantly above the price in urban areas comparability between urban and rural rates will be lost in contravention of the TCA.<sup>164</sup>

**Recommendation:** Washington should support all telephone lines and determine support by subtracting average revenue per line from the cost of each line. This will promote efficiency and increased deployment of new telecommunications services without disrupting the services already in place in households and businesses

---

<sup>164</sup> See 47 U.S. C. (B) (3), requiring comparability of rates for the same services in urban and rural areas

in Washington.

**Legislative Action:** The legislature must give the WUTC authority to create and operate a universal service fund if this recommendation is to be implemented.



**Neutral, Third-Party Administration of the Fund**

Administration of the fund will be a complex, time-consuming job. It should not be done by the WUTC, nor should it be done by any individual or organization with a financial or other interest in telecommunications. The FCC, following the recommendation of the Joint Board, has opted to seek a neutral, third-party administrator for the federal universal service fund.<sup>165</sup>

The fund administrator will handle proprietary and confidential information from all telecommunications service providers in Washington. The WUTC handles many proprietary and confidential filings, and they have increased in number as competition draws closer. Increased competition means an increasing need for companies to safeguard information which, despite its confidential nature, will have to be turned over to the administrator for calculation of payments.<sup>166</sup> Safe-guarding confidential

---

<sup>165</sup> ¶ 861 First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

<sup>166</sup> An example of the type of information which the fund administrator will need to know and which would be confidential is the number of customers each company has in each local exchange. Competitors would find it advantageous to know what

information necessitates using a neutral party.

The present administration of the state universal service fund is done by the Washington Exchange Carrier Association (WECA). Its board of directors is composed of representatives of incumbent, high-cost companies. In a competitive era, however, it would be inappropriate for WECA to continue in this role.<sup>167</sup> In order to ensure confidence in the administration of the fund, a neutral party is required.

While the WUTC is neutral, it does not have staff available to operate the fund. This is a function which can best be carried out by a contractor with oversight from WUTC staff. This should provide the best administration for the least expense and provide for neutrality with sufficient oversight to ensure that confidentiality is maintained.

**Recommendation: Washington should contract with a neutral, third-party for design, operation and administration of a universal service fund.** This should be accomplished through a competitive bid process which excludes interested parties.

**Legislative Action:** The WUTC needs statutory authority to contract for operation of the fund by a neutral, third party.

---

market share other companies have.

<sup>167</sup> The FCC has decided to remove control of the federal high-cost fund from the National Exchange Carrier Association (NECA) for the same reason. See ¶ 866, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).





## **APPENDIX A**

## **Public Interest Payphones**

### **Summary**

By directive of the Telecommunications Act of 1996, pay phones have been deregulated and efforts have been made to remove regulatory and economic barriers to competition. Both the Act and the FCC rules implementing the pay phone provisions caution that as the industry deregulates, incentives to retain certain unprofitable yet necessary payphones may get removed.

The FCC has directed state public utility commissions to determine whether deregulation will result in a loss of pay phones serving a public interest in their states and, if so, to devise a way of resolving the problem.

Staff has analyzed this issue as part of a broader rulemaking dealing with pay phone consumer protection rules. Staff determined that it was too early to determine whether pay phone deregulation and competition would cause serious loss in pay phones that serve a public interest. No evidence was found to indicate that there would be serious immediate consequences resulting from deregulation. Instead, the review appears to indicate that a combination of a competitive market and local government vigilance may provide better public pay phone service than is currently provided.

### **Background**

On September 20, 1996, the Federal Communications Commission (FCC) adopted a

Report and Order implementing Section 276 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996.<sup>168</sup>

In the Report and Order, the FCC adopted new rules and policies governing the pay phone industry with the goal of fostering a more competitive pay phone industry. The new policies included eliminating certain subsidies related to the pay phone investments of local telephone companies and requiring that pay phones be compensated for all calls, except for 911 emergency calls.

The Report and Order also dealt with the directive in Section 276(b)(2) of the Telecommunications Act of 1996 requiring the FCC to “determine whether public interest pay phones, which are provided in the interest of public health, safety and welfare in locations where there would not otherwise be a pay phone, should be maintained, and if so, ensure that such public interest pay phones are supported fairly and equitably.”

The FCC addressed this issue by saying that “states are better equipped than the Commission to respond to geographic and socio-economic factors affecting the need for such pay phones that are too diverse to be effectively addressed on a national basis.”

Instead, the FCC adopted guidelines for use by the states in establishing public

---

<sup>168</sup>Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996, CC Docket No. 96-128, Report and Order, FCC 96-388 (rel. September 20, 1996).

interest pay phones. The guidelines are intended to ensure that any subsidies used to pay for public interest pay phones are generated and spent without creating a competitive disadvantage or advantage to any set of players.

The FCC directed each state to review whether it should to take any measures to ensure the availability of pay phones that serve a public interest need.

The FCC outlined some options for dealing with public interest pay phones. A state may choose to fund public interest pay phones from its general revenues through a process that ensures that companies providing such pay phones are fairly compensated and in a manner that does not otherwise affect competitive balance.

A state or local government may contract with a pay phone or telecommunications company for pay phone service in areas that serve an identified public interest.

These contracts could be arranged so as to offset the cost of an unprofitable pay phone with pay phones located in more profitable locations. Or the local government, could as a course of providing emergency services for its citizens, ensure that pay phones or calling stations capable of contacting emergency service personnel are readily available in their communities.

States may also address the need for public interest pay phones by adopting appropriate rules in conjunction with their responsibilities for ensuring universal service pursuant to Section 254(f) of the 1996 Act.

As part of the WUTC's pay phone rulemaking (Docket No. UT-970301), staff requested information from telephone companies, local governments and the public that would aid in determining the threshold question of whether public interest pay phones will need to be maintained with a subsidy program. Staff also sought comment and data on whether public entities could take a more active roll in ensuring availability of public interest pay phones and on how a state public interest pay phone support program might be constructed.

Four incumbent local exchange companies responded to staff's questions. All four companies indicated they had removed pay phones in the last year due to unprofitability. U S West, which initiated a systematic review of all of its pay phone locations in Washington, claims that it has initially targeted 475 unprofitable pay phones for possible removal. As of July 1997, 182 of those pay phones had been removed and 42 had been converted to semipublic status, meaning that the location owner compensates U S West for the provision of the pay phone. TDS Telecom with local service companies of McDaniel and Lewis River wrote that it had pulled 24 pay phones since the Report and Order was issued. GTE-NW indicated it had removed five pay phones during that same period while United Telephone Company listed three pay phones removed. There was no indication whether any of these pay phones were considered pay phones serving a public interest need.

King County, the only county government to comment, said it had not lost any pay phones yet but that it had experience in working with pay phone providers to

ensure that its citizens' needs were met. Seattle, the only city to comment, indicated it would like to take more responsibility for the policing of pay phones, mainly from the perspective of reducing the use of pay phones for alleged illicit activities.

The only other community-based organization reflected a different perspective. A letter from the Bay Center Association indicated that the community had recently lost its only publicly-accessible pay phones.

Public Counsel supports a creation of a public interest pay phone program. In Public Counsel's view, the WUTC should administer the program funding but the decision of where to place public interest pay phones should be left to "those governmental bodies better suited for determine public need."

While the Report and Order eliminated the ability for local telephone companies to include pay phone costs into their investment base for determining access charges, the FCC order also required that all calls, except for 911 calls, be compensated. The estimation by the FCC is that the average pay phone receives approximately 130 uncompensated toll-free calls per month. The FCC has ordered that long-distance carriers which sell toll-free service will have to compensate pay phone providers for each call made. Until a system can be devised to provide per-call compensation, the FCC set an interim amount based on a fixed monthly amount per pay phone of \$45.85 cents. Payment of the interim amount is in dispute and has been remanded by the reviewing court back to the FCC.

The industry generally agreed that the potential for compensation for previously uncompensated calls as well as the ability to raise their coin rate for local calls will make some previously unprofitable pay phones profitable.

None of the commenters objected to the possibility of including support of public interest pay phones within a new state universal service program. However, U S West and GTE both urged that the state allow the market to develop and respond first before establishing a program.

### Discussion

While there are pay phones being removed from certain locations in the state, staff has no way of determining whether these locations have served a public interest need nor can it determine if they will be replaced by a competitor's pay phone. For instance, a subsequent letter from the Bay Center Association indicated that a new pay phone had been installed in the community.

Determining public interest remains a subjective decision. Comments from the various parties did not pin down a more detailed definition of public interest than what the federal Act already provides: "health, safety and public welfare."

Arguably just about any telephone meets that need and there are countless locations in Washington lacking a pay phone which would meet that vague criteria. Public Counsel suggested more specific criteria such public recreation areas in remote locations, high crime risk areas, and public and private institutions serving low-income or risk groups.



While these locations are deserving of public phones, they do not necessary suggest a need for a separate program designed to establish pay phones. A separate program may work in conflict with other activities which might serve public interest needs more efficiently, such as the state's universal service program designed to ensure affordable service in high cost areas, the increased application and decreased cost of personal wireless communications service, the increased revenues for pay phones from toll-free calls and higher local coin rates and recognition by public entities of their responsibility to ensure that their citizens can communicate in situations where health, safety and public welfare are threatened,

Commenting parties were in general agreement that the most likely problem will occur in remote locations. Pay phones in urban areas where there is a high transient population and a low percentage of households with telephones are usually very profitable. While staff does not at this time recommend including public interest pay phones as a separate component to a state universal service program, it does recommend that the rate for a public access line serving a pay phone in a universal service eligible territory should be priced to reflect whatever subsidies are available to other business lines in that service area.

Given the relative early stage of pay phone deregulation, staff believes it would be premature to reach a firm conclusion. At this time, staff recommends holding off on any specific legislative action establishing a public interest pay phone program. The WUTC should track complaints, if any, regarding the lack of pay phone service and should work with local governments in helping them identify and

satisfy their public interest communications needs.

**8. Recommendation: Washington should not establish a public interest pay phone program at this time.** There is no evidence at present that there is an insufficient number of pay phones or that pay phones necessary for public safety are lacking. Furthermore, there is no indication that deregulation will make such phones more scarce. The WUTC should track complaints, if any, regarding the lack of pay phone service and should work with local governments in helping them identify and satisfy their public interest communication needs. Should conditions change, WUTC would revisit the issue.

**Legislative Action:** No action is needed at this time.