

mechanisms.”⁵² This means the state will bear the full cost of any additional basic service requirements beyond the FCC list.⁵³

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 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

⁵² 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.

⁵³ 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.

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.⁵⁴

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.⁵⁵ 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 neutrality. In addition, 47 U.S.C. 253 prohibits barriers to entry. "No state or local

⁵⁴ RCW 80.36.370(6)

⁵⁵ 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.)

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.⁵⁶

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 engineering and economic decisions made by the providers of telecommunications.

⁵⁶ 47 U.S.C. 253(d).

The WUTC does not have authority to direct companies in these engineering decisions.⁵⁷

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.⁵⁸ 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.

Satellite technology is not much different than cellular technology. It depends on

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

⁵⁸ The public switched network is described in the previous section.

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.⁵⁹ This is more than double the investment in the first half of 1996, which was \$2.6 billion dollars.⁶⁰ Even with this level of investment, PCS companies are not expected to have bottom-line profits for another five to eight years.⁶¹ 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

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

⁶⁰ Id.

⁶¹ Id. 2.

integrated basis with traditional wireline telephone assets.⁶²

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 and

⁶² "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.

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 loop⁶³ 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.⁶⁴ If under-compensation results, there will be a serious barrier to entry for new competitors.⁶⁵

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. Compensating for legacy cost and construction cost have been proposed as

⁶³ "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).

⁶⁴ ¶ 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 red at 232.

⁶⁵ Id.

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 model⁶⁶ 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

⁶⁶ 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.⁶⁷ 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.⁶⁸ 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.⁶⁹

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.”⁷⁰ 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.”⁷¹

The use of embedded cost to determine universal service support would

⁶⁷ 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.

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

⁶⁹ Id. ¶ 226.

⁷⁰ 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.

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

incorporate any inefficient investment which has previously been made. This would particularly be the case where reported costs of high-cost companies⁷² 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.⁷³ 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.⁷⁴ 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 service.⁷⁵ At the same time, the FCC has addressed the allegations of some incumbents that failure to provide a mechanism for recovering legacy costs would

⁷² 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).

⁷³ "...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.

⁷⁴ 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.

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

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.⁷⁶

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.⁷⁷

Differential Treatment for Rural and Non-Rural Providers

The Joint Board recommended and the FCC agreed that rural⁷⁸ and non-rural

⁷⁶ Id.

⁷⁷ 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).

⁷⁸ 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;

telecommunications carriers should be treated differently with respect to the calculation of costs for the purpose of determining universal service support.⁷⁹ 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.

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 2000.⁸⁰ 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 1999.⁸¹

(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).

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

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

⁸¹ Id. ¶ 248.

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.⁸² The FCC decision affects only federal universal service support; it does not control state decisions concerning state universal service support mechanisms.⁸³ It is up to the states to determine their state universal service mechanisms and to decide when and how competition comes to areas served by rural carriers.⁸⁴

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

⁸² 47 U.S.C. 254(f).

⁸³ *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 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).

⁸⁴ 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).

80.36.300.⁸⁵ 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.⁸⁶

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

⁸⁵ 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.

⁸⁶ 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.

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 1934.⁸⁷ 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.⁸⁸ 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..."⁸⁹ There was no definition of "basic services" because nearly all service at the time was rudimentary.

⁸⁷ 48 Stat. 1064 (1934).

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

⁸⁹ 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.⁹⁰ 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%.⁹¹ At the same time, the real price of local service declined 55%.⁹² 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%.⁹³

Today, subscribership, often referred to as penetration rate, is at about 95%

⁹⁰ 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.

⁹¹ Kellogg at 453.

⁹² Id.

⁹³ Id. 452.

nationally.⁹⁴ In Washington it is 97%.⁹⁵ 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.⁹⁶

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,⁹⁷ but instead use average pricing--all customers paying the same, or very similar, amount

⁹⁴ 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.

⁹⁵ 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.

⁹⁶ See RCW 80.36.410 - 475

⁹⁷ 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 high-cost fund support.

for basic service--so that their high-cost customers are supported.⁹⁸

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.

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

⁹⁸ 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.

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.⁹⁹

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.¹⁰⁰ However, cost studies consistently show the difference in cost of providing business service and residence service is much less than that ratio.¹⁰¹ 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

⁹⁹ 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.

¹⁰⁰ Nationally, the single line business rate is 2.3 time 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.

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

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.¹⁰² 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.¹⁰³

The higher contribution from interstate long distance comes through the FCC "separations process."¹⁰⁴ 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 the cost of the local network allocated to interstate use has been substantially higher than is indicated by the actual level of interstate traffic.¹⁰⁵ 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.

¹⁰² Kellogg at 452-53.

¹⁰³ "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).

¹⁰⁴ See 47 CFR Parts 36 and 69.

¹⁰⁵ 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.

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.¹⁰⁶ 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. 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¢.¹⁰⁷

The FCC has recently restructured and lowered interstate access charges¹⁰⁸ and many

¹⁰⁶ "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.

¹⁰⁷ This is a representative example; tariffs differ from company to company.

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