

# **An Overview of State and Federal Universal Service/Access Support Mechanisms and Administration in the United States**

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## **Abstract:**

The origin of the term “universal service” can be traced to Theodore Vail, AT&T’s first President, who used it in the company’s 1907 Report; the company’s slogan was “*one system, one policy, universal service.*” The United States Congress codified the concept of Universal Service in the Telecommunications Act of 1934, that included the objective to “make available to all people of the United States a rapid, efficient, nationwide, and world-wide wire and radio communications service with adequate facilities at reasonable charges”.

This paper traces the evolution of universal service mechanisms in the United States showing how the introduction of competition necessitated changes. It provides a current snapshot of their status in 2001 and shows how and why individual states have chosen to implement programs to supplement federal support mechanisms.

## **1. Evolution of Federal Universal Service Support Mechanisms:**

With a monopoly providing both long distance service and local service (AT&T and its subsidiary twenty-three Bell Telephone Companies), rates for local service were kept artificially low through cross-subsidization via implicit subsidies inherent in rates. Higher long distance charges and higher local service charges to urban and business customers as well as higher charges for vertical services compared to basic services were used to offset the high cost of providing telecommunications service to residential subscribers in high cost rural areas.

In many rural areas, independently owned local telephone companies were formed and interconnected to the Bell System network. These companies participated in a Division of Revenues process with AT&T and the Bell Companies. AT&T, through a process of intra-company settlements, paid the local Bell companies from its long distance revenues to complete long distance calls over their local networks. The Bell companies in turn settled with these independent (non-Bell) companies for calls originated or terminated on their networks. The process worked well in the then existing monopoly environment.

Prior to the divestiture of the Bell Operating Companies in 1984, local telephone companies assigned their non-traffic sensitive NTS local loop costs<sup>1</sup> of connecting to the long distance network to the interstate jurisdiction based on a Subscriber Plant Factor (SPF) which, for rural subscribers, assigned additional costs to the interstate jurisdiction for recovery, thereby keeping the prices they paid for local service low. That is, for telephone companies serving high cost areas, this factor produced an assignment of costs to the interstate jurisdiction that was higher than the usage based allocation of cost for providing the interstate connection. In effect it allowed local service rates, the price the “*end-user*” customers paid for local telephone service, to be kept artificially low in high cost areas since they were subsidized by AT&T’s long distance charges through the Division of Revenues process. In 1982, local companies were required to “freeze” their SPF at its 1981 level.

In January 1984, as a consequence of the Consent Decree that AT&T signed to resolve pending U.S. Department of Justice antitrust litigation, AT&T divested its holdings in the Bell Operating companies. As a result, the Division of Revenues process which had been supported solely by AT&T was replaced by a series of access charges that AT&T and any other long distance service provider would be required to pay local telephone companies to complete long distance calls over the local network. Recognizing the need for all providers of interstate service (e.g., the Interexchange Carriers ⇔ IXC) to share in the costs the local telephone companies incurred for providing the local connection, the Federal Communications Commission (FCC) established interstate access charges.<sup>2</sup> The FCC also created the National Exchange Carrier Association, Inc. (NECA) shortly before the divestiture to develop the access charge tariffs for the local carriers and to administer a nationwide cost and revenue pooling mechanism. [Note: Until 1989, all Local Exchange Carriers (LECs) were required to participate in NECA’s Common Line Pooling process (access charge and revenue distribution process for the local loop costs assigned to the interstate jurisdiction). All companies, regardless of cost, charged an identical rate – the Carrier Common Line (CCL) rate – to recover the costs assigned to interstate Common Line.]

In 1985, the FCC simplified the process for allocating costs to the interstate jurisdiction by mandating that local companies begin to transition (over an eight-year period) their assignment of non-traffic sensitive costs for providing the local loop to the interstate jurisdiction from the level determined using the “frozen” SPF to a flat twenty-five percent of total NTS costs. While the change to such a *Gross Allocator* greatly simplified the cost allocation process, it also removed a mechanism that had kept rural carriers’ costs affordable. The impact of this change was estimated to shift over \$1 Billion in costs from the interstate to state jurisdictions for recovery.

Recognizing this interdependency on the cost allocation process and the need to continue to fulfill the universal service policy objective of the Communications Act of 1934, the FCC created the (federal) Universal Service Fund (USF), designed to supplement the new cost allocation mechanism. As mentioned previously, the change in jurisdictional assignment resulted in a reduction in the allocation of costs to the interstate jurisdiction for most high cost local companies. Without some “special treatment”, customers of such companies would have experienced significant increases in their intrastate costs and corresponding local rates. The federal USF permitted local carriers whose actual average cost to provide a telephone line to a customer’s premises exceeded the national average cost of all carriers to provide such a line by more than fifteen percent to assign an additional portion of that cost to the interstate jurisdiction for recovery, thereby reducing the costs left to be recovered from local subscribers. This mechanism began its phase-in to full funding in 1986, paralleling the transition of the Subscriber Plant Factor to the 25% gross allocator. The funding required by the new Universal Service program was included in the rates developed by NECA and assessed to each of the long distance service providers as part of their Common Line access charges.

In 1987 as part of an industry agreement to modify the access charge plan, the FCC adopted modifications to the access charge pooling process as well as proposed changes to the Universal Service Fund. As a result of the changes to the USF, rural carriers whose costs exceeded the 115% threshold would be permitted to assign a higher percentage of those costs, while the larger carriers (i.e., those having more than 200,000 customers) would not be permitted to assign as much cost to interstate as had previously been permitted. This change to the USF was predicated on the assumption that small companies have more need for assistance than larger LECs, which were believed to have greater flexibility in how they recovered above-average costs. In addition, the larger local exchange carriers would be permitted to leave the pooling process and file Common Line access charges tariffs based on their own costs rather than the cost of all local carriers nationwide. These changes became effective January 1, 1988 and April 1, 1989, respectively. To reduce disparities in CCL rates among LECs after companies were permitted to withdraw from the NECA pool, the FCC instituted the Long Term Support (LTS) program to provide additional support to high-cost local companies, who remained in the NECA pool, to enable them to continue to charge IXCs only a nationwide average CCL access rate, thereby helping to ensure the continuation of nationwide average pricing for interstate toll charges. When originally established, LTS was entirely funded by those larger LECs who elected to exit the pool.

While the local carriers all benefited from these changes, they necessitated revisions to the methodology for determining who would contribute to the federal Universal Service Fund and how much they would be assessed. Instead of the USF funding being included in the Carrier Common Line charges assessed by all local telephone companies, separate access charges to recover these costs were developed by NECA and billed to all long distance carriers having more than five one-hundredths of one

percent of the nation's customers pre-subscribed to their long distance service. In addition to the USF high cost fund, this recovery mechanism also supported the federal programs to assist low income consumers in obtaining and maintaining telephone service. The new funding mechanism was instituted on April 1, 1989.

The Telecommunications Act of 1996 (TA-96) expanded the scope of universal service and stimulated the provision of nationwide access to advance telecommunications and information services. When Congress passed this Act, it directed that the FCC "...base policies for the preservation and advancement of universal service" consistent with a set of Universal Service principles, set forth in the Act, which are to promote the availability of quality services at just, reasonable, and affordable rates; provide access to advanced telecommunications services throughout the Nation; ensure the availability of such services to all consumers, including those in low income, rural, insular, and high cost areas at rates that are reasonably comparable to those charged in urban areas. In addition, the 1996 Act requires that all providers of telecommunications services contribute to federal universal service in some equitable and nondiscriminatory manner; there should be specific, predictable, and sufficient Federal and State mechanisms to preserve and advance universal service; all schools, classrooms, health care providers, and libraries should, generally, have access to advanced telecommunications services; and finally, that the Federal-State Joint Board and the FCC should determine any other principles that, consistent with the 1996 Act, are necessary to protect the public interest.

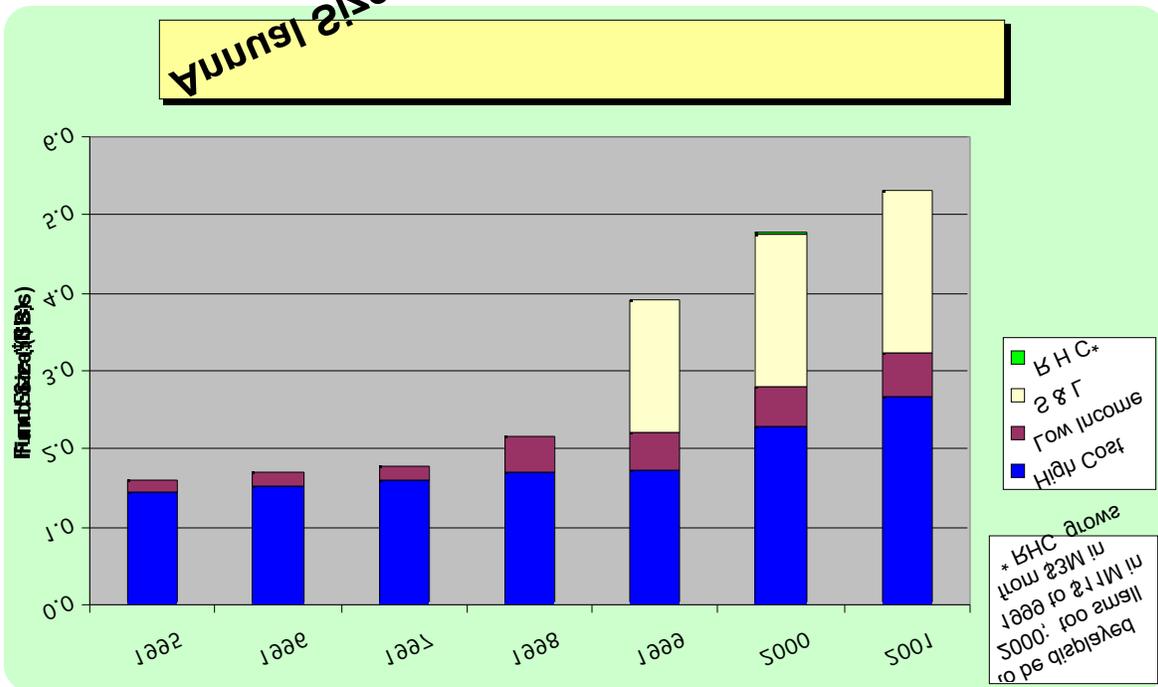
### **1.1 Federal Universal Service Support Mechanisms – post-1996 Telecommunications Act**

To help *promote* telecommunications service nationwide, the FCC, as directed by Congress in the 1996 Act, expanded the Federal Universal Service Fund (USF). The four main programs of the Federal Universal Service Fund, to be explained in the following sections, are:

- 1. Low Income**
- 2. High Cost**
- 3. Schools and Libraries**
- 4. Rural Health Care**

The sizes of each of these programs from 1995 through the current year are illustrated on the chart shown below. As elaborated upon in program descriptions that follow this chart, the Schools and Libraries and Rural Health Care programs were only funded beginning in 1998 with disbursements effectively beginning in 1999.

# Annual Size of Federal Subsidy Block



**1.1.1 Low-Income:** Using Federal Universal Service funds, the telephone company provides discounts on telephone installation and monthly telephone service to qualifying low-income consumers for whom the cost of activating and maintaining such service may be prohibitively expensive. The Lifeline and LinkUp programs (summarized below) are available in every state, territory, and commonwealth. In order for a local telephone company to be designated as an Eligible Telecommunications Carrier (ETC), a prerequisite for it to qualify for support from the federal USF, it must make Lifeline service available to its customers. Qualifications for participation in the Low-Income programs vary by state. States having their own Lifeline program have their own criteria. In states that rely solely on the Federal Low-Income program, the named subscriber must participate in one of the following programs: Medicaid, food stamps, Social Security Income (SSI), federal public housing assistance, or Low-Income Home Energy Assistance Program (LIHEAP). Total Federal Universal funds dedicated to the Low Income program is projected to be approximately \$570 million in 2001.<sup>3</sup> The following provides additional information regarding the program's benefits and operation:

### Benefits available under the Low-Income program:

- **LinkUp America** helps qualified low-income consumers pay the initial costs for commencing service by offsetting one-half of the initial hook-up fee, up to \$30.00. The program also encourages local telephone companies to offer low-income telephone subscribers a deferred payment schedule for these charges.

- **The Lifeline Assistance Program** provides discounts on monthly service for qualified telephone subscribers. These amounts range from \$5.25 to \$8.50 per month, depending upon the applicable state provisions.
- Residents of Native American Indian and Alaska Native tribal communities may qualify for **enhanced Lifeline support** (up to an additional \$25.00 in support beyond the levels indicated above) and expanded LinkUp support (up to \$70.00 in additional support beyond the levels indicated above).

**1.1.2 High-Cost:** This program provides financial support to Eligible Telecommunications Carriers (ETCs) that provide basic “core” telephone service to customers in areas of the country that are relatively more costly to serve. The high-cost support mechanisms enable areas with higher costs to recover some of these costs from the Universal Service Fund, leaving a smaller remainder of these costs to be recovered through a combination of end-user rates and supplemental support from state universal service programs. There are currently four components to the federal high-cost support mechanism: (1) High Cost Loop (HCL) support (the primary high-cost support mechanism), (2) Long Term Support (LTS), (3) Local Switching Support (LSS), and (4) Interstate Access Support.

- The High Cost Loop (HCL) fund<sup>4</sup> is the largest of the high-cost support mechanisms (projected at \$1.18 billion for 2001) since it deals with the non-traffic sensitive (NTS) loop costs, alluded to earlier, that often represent more than one-half of a local telephone company’s investment. HCL is divided between support for the rural ETCs, serving the more costly rural areas of the country, and the non-rural ETCs. In each case the companies must first calculate their cost per line, using an approved methodology – non-rural companies must utilize a designated “forward-looking” cost model. The costs so developed are then used to determine individual statewide and national average costs that are then used to establish “benchmarks” – e.g., threshold levels. Only companies whose costs per line exceed the appropriate benchmark qualify for support from the fund.
- Long-Term Support (LTS) is related to interstate non-traffic sensitive costs and, as mentioned earlier, provides support to ETCs that participate in the National Exchange Carrier Association, Inc. Common Line Pool, allowing them to charge interexchange carriers (IXCs) a uniform nationwide average CCL access rate, thereby fostering the continuation of nationwide average pricing. In effect, LTS helps ensure that IXCs do not need to pay higher CCL rates for reaching high-cost rural locations and alleviates the pressures on IXCs to charge higher

rates for calls to or from those locations, or, by the same reasoning, to charge lower rates for calls to or from low-cost areas. LTS is estimated to be approximately \$487 million in 2001.

- Local Switching Support (LSS) is available to Local Exchange Carriers (LECs) with 50,000 or fewer access lines to offsets the high fixed costs in traffic-sensitive switching when there are relatively few telephone lines over which to spread those high costs. It recognizes that switching costs in small central offices are relatively higher than those in larger offices. LSS will be about \$391 million for 2001.
- Interstate Access Support (IAS) is a new (May 2000) mechanism that provides explicit support for price cap carriers (or competitive carriers serving in the service area of a price cap carrier) to ensure reasonably affordable interstate rates. It replaces implicit support previously collected through interstate access charges. Currently, support is fixed at an aggregate annual amount of \$650 million.

Projected Federal support for the entire High Cost program for 2001 is estimated at \$2.6 to \$2.7 billion.

**1.1.3 Schools and Libraries:** This program, also called "**E-Rate**," makes technology such as phone service and the Internet affordable for schools and libraries in America. In 1996 Congress mandated that the FCC implement a support mechanism to provide support to carriers that serve eligible schools and libraries. This program, which was incorporated into the FCC's Federal Universal Service Fund, helps ensure that the nation's classrooms and libraries receive access to the vast array of educational resources that are accessible through the telecommunications network.

**Benefits available under the Schools and Libraries (S&L) program:**

- Eligible schools and libraries receive discounts on telephone service, Internet access, and internal connections (i.e., network wiring) within school and library buildings.
- The discounts range from 20% to 90%, depending on the household income level of students in the community and whether or not the school or library is located in an urban or rural area.

**Operation of the Schools and Libraries program:**

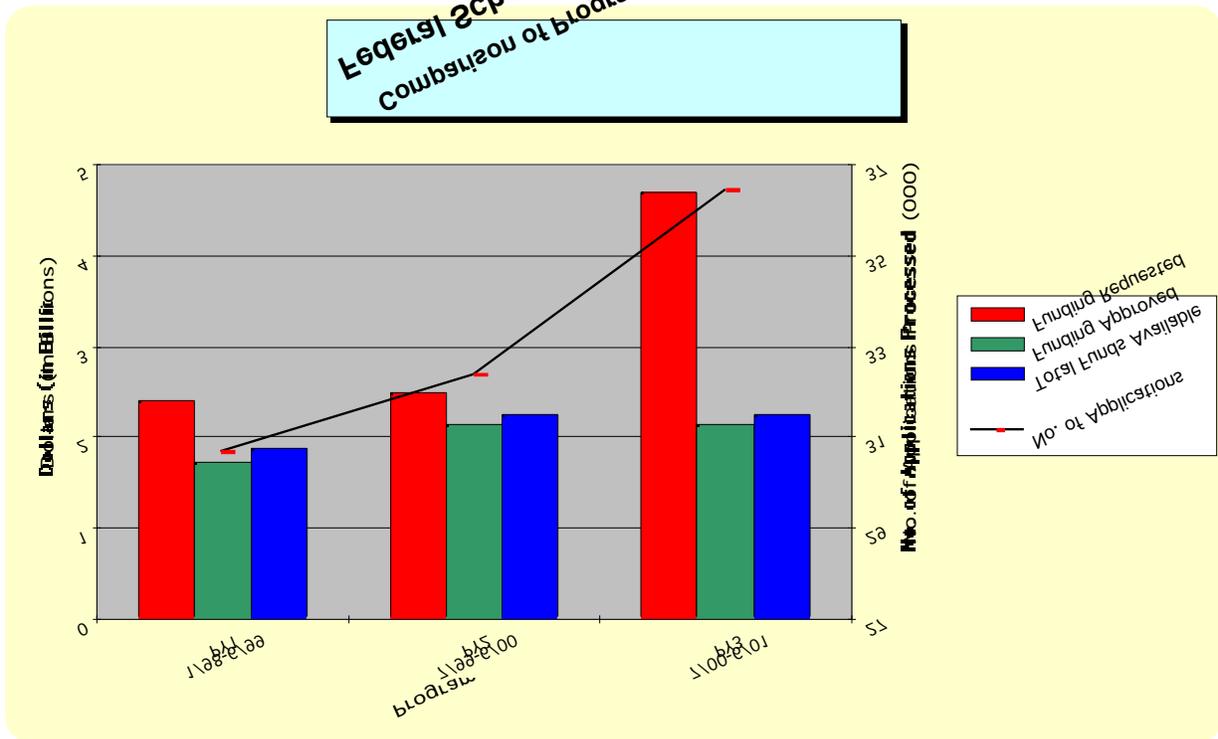
- Schools and libraries must develop an approved technology plan that demonstrates the relationship between the information technology to be supported and the curriculum or library objectives. A school or

library applying for support first solicits bids from vendors for the services it desires. After identifying an appropriate vendor and following review and approval of its application by the S&L fund administrator, the applicant receives a funding commitment from the S&L program. If the demand for support exceeds available funds, then these funds are allocated first to the schools and libraries in those communities requiring the most support (e.g., where the discounts are largest).

- Using Federal Universal Service funds, vendors are reimbursed for the approved discounts they provide on the services they furnish to schools or libraries.

Largely as a result of the FCC's Schools and Libraries program, more than 98 percent of public schools had been connected to the Internet by the end of 2000, up from 65 percent in 1996, just prior to the Telecommunications Act of 1996.

A graphical illustration of this program's success is shown in the following chart. During the first three years of the S&L program, the number of applications for support from schools and libraries has increased by nearly 19% while requested funding has escalated by more than 95%. The "blue bar" represents the total annual funds of \$1.25 billion for year one and \$2.25 billion thereafter, as stipulated by Congress for this program.



**1.1.4 Rural Health Care:** The Rural Health Care (RHC) program ensures that health care providers serving rural communities pay no more than their urban counterparts for telecommunications services necessary for the provision of health care. It helps link health care providers located in rural areas to urban medical centers so that patients living in rural America will have access to the same advanced diagnostic and other medical services that are enjoyed in urban communities. The RHC program is also part of the Federal Universal Service Fund and is funded in the same way as the S&L program. Current estimates are that about \$11 million of support will be made available in 2001 for the RHC program.

**Benefits available under the Rural Health Care program:**

- Eligible rural health care providers can receive support for any telecommunications service; they receive discounts or reimbursements for monthly telecommunications charges, installation charges, and long distance Internet connection charges.
- Rural health care providers are using funds from this program for a variety of patient services, such as transmitting x-rays from remote areas to be read by health care professionals and experts in urban areas.
- Eligible entities include:
  - Post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools;
  - Community health centers or health centers providing health care to migrant workers;
  - Local health departments or agencies, not-for-profit hospitals; and
  - Rural health clinics.

**The operation of the Rural Health Care program:**

- A rural health care provider submits a request for services to the program administrator who posts the request on its Web site, seeking carriers to provide the required services.
- Using Universal Service funds, the selected carrier is reimbursed for the discounts it provides for the services furnished to the health care provider.

## **1.2 Funding for the Federal Universal Service Fund:**

All telecommunications carriers that provide service between states and internationally pay contributions into the FCC's Federal USF, to support all four of the programs outlined above – Low-Income, High-Cost, Schools and Libraries, and Rural Health Care. The fund administrator makes payments from the fund to support each Universal Service program.

The chart shown below shows the quarterly assessment rate (factor) applicable to telecommunications service providers revenues from 1998 through what is projected for 2001. The significant increase in the factor that began in the first quarter of 2000 is attributable to the fact that intrastate revenues were precluded from being assessed as a basis for contributions to the federal universal service fund as of January 2000.



The Interstate Telecommunications Relay Service (TRS) fund is another example of a federal support mechanism that facilitates communications with hearing or speech impaired individuals via the transcription from Text Telephones (TTY) to voice or voice to text. More than 4,500 providers of interstate telecommunications service contribute nearly \$60 million annually to this fund to pay the cost of operating the relay center.

## **2. Evolution of State Universal Service Support Mechanisms:**

As mentioned, the 1996 Telecommunications Act indicated that the provision of universal service was a joint federal and state responsibility and it directed the FCC and the states to establish the appropriate support mechanisms. Subsequently, numerous individual states have heeded the call to promote universal service in order to supplement the benefits provided by the federal programs discussed in the preceding sections. Many states established intrastate universal service programs spurred, in part, by projected reduced levels of federal support, the need to rebalance/restructure intrastate rates to foster competition and for other reasons that will be described in the section entitled “Why State Universal Service Funds ⇨ ‘Drivers’”.

The 1996 Telecommunications Act provided that “only an Eligible Telecommunications Carrier (ETC) ... would be eligible to receive Federal universal service support” and set forth certain obligations that a service provider had to satisfy in order to be designated by a state commission as an ETC. Among these obligations was the requirement that this entity had to provide a package of “core” or “designated” services that, at a minimum, included each of the following<sup>5</sup>: (a) single-party service; (b) voice grade access to the public switched network providing the ability to place and receive calls; (c) Dual Tone Multifrequency (DTMF) signaling or its functional equivalent; (d) access to emergency services, e.g. Emergency 911; (e) access to operator services and directory assistance; (f) access to interexchange services, and (g) toll limitation services for qualifying low-income consumers. The FCC noted that this package of services would evolve over time. To be designated as an ETC, a carrier must offer these services either using its own facilities or a combination of its own facilities and resale of another carrier’s services, must advertise the availability of these services and their corresponding prices, and, as aforementioned, must make Lifeline support accessible to its customers.

The role of states to ensure universal service continues to evolve. At the outset, it is important to note that the creation of distinct state universal service funds has never been mandated either by Federal legislation or FCC orders. As pointed out above, states designate Eligible Telecommunications Carriers entitled to receive Federal universal service support as well as support from that state’s own USF, if one has been established. Furthermore, states are responsible for: (a) designating the service areas to be served by non-rural carriers and doing so in a “pro-competitive” manner – e.g., not designating service areas that are so large as to discourage competitive entry by effectively creating an entry barrier; (b) monitoring rates and non-rate factors to ensure the affordability of telecommunications services (e.g., tracking cost of living factors, subscribership levels, etc.); (c) ensuring reasonable comparability of rates for service within the state<sup>6</sup> – the Federal-State Joint Board on Universal Service indicated that the state role is to **“supplement, as desired, any amount of federal funds it may receive,”** and to **“address issues regarding implicit intrastate support in a manner appropriate to local conditions,”** and (d) evaluating and establishing alternative funding mechanisms to support universal service.

## 2.1 Why State Universal Service Funds ⇔ “Drivers”

A myriad of factors have influenced states to establish their own distinct universal service funds. Changes in federal or state laws and regulations – especially any that reduce previous levels of funding for support mechanisms – are primary stimuli. For example, the enactment of TA-96 and subsequent FCC Orders that affected the amount of support to both non-rural and rural telecommunications service providers motivated a number of state legislatures and regulatory agencies to enact legislation and corresponding regulations to establish state universal service programs. Similarly, some states have instituted “**revenue recovery**” mechanisms, giving carriers the ability to seek reimbursement, in whole or part, for rate reductions mandated by federal and/or state regulatory agencies. In Arkansas, for instance, incumbent local exchange carriers can request support from the state USF for lost revenues resulting from decreased federal USF funding and/or federal or state-mandated rate reductions. Relatedly, changes in jurisdictional support levels – whether actual or merely anticipated by the industry – also acted as catalysts to consider setting up state support mechanisms. For example, an FCC Order that indicated that the Federal USF might only cover 25% of states’ requirements for high cost support generated concerns regarding how the remaining 75% would be recovered from other mechanisms, including state USFs.<sup>7</sup>

Another significant driver that was an incentive for states to establish their own USFs was the emphasis that both the FCC and state Public Utility and Public Service Commissions placed on stimulating competition and moving the telecom industry away from a monopolistic environment. To this point, the FCC stated that “**...the development of competition may place pressure on implicit support mechanisms at the state level ... states that use above-cost pricing in urban areas to subsidize below-cost service in rural areas may face pressure to deaverage rates as competitors begin to offer cost-based rates to urban customers.**”<sup>8</sup> As briefly outlined in the section “Evolution of Federal Universal Service Support Mechanisms”, in a monopolistic environment universal service was supported by implicit subsidies; large carriers who served entire regions/markets could support universal service programs through their own rates. Rate designs that provided implicit high-cost support flowed from (1) urban to rural areas; (2) business customers to residential customers; (3) vertical services to basic service, and (4) long distance to local service. Although the Act did not require states to identify implicit subsidies in intrastate rates, the FCC said “**we do not believe it would be equitable to expect the federal mechanism – and thus ratepayers nationwide – to provide support to replace implicit state support that has been eroded by competition if the state possesses the resources to replace that support through other means.**”<sup>9</sup> In a manner analogous to what occurred in the federal jurisdiction, this effectively necessitated the identification of implicit subsidies in state rate designs and their conversion to explicit subsidies, further acting as an impetus to create USFs in various states. Some states, under “**revenue recovery**” provisions of their state USF rules, permit carriers to recover implicit

subsidies previously included in, say, access charges, from state support programs. Under **“rate rebalancing”** provisions, some states allow carriers to seek reimbursement for mandated rate reductions. In addition, states also establish programs to reimburse agencies for their costs of implementing and administering programs to provide telecommunications services and/or special equipment to physically-challenged individuals.

## **2.2 Funding State Universal Service Funds ⇔ Who Contributes?**

Generally, all telecommunications service providers offering service in a particular state are required to contribute to the fund by paying assessments, often on a monthly basis, to the fund administrator. Service providers usually required to make payments into a fund include: Incumbent Local Exchange Carriers (ILECs); Competitive Local Exchange Carriers (CLECs); Interexchange Carriers (IXCs); resellers; payphone operators; wireless service providers; providers of Commercial Mobile Radio Service (CMRS); operator service providers and competitive access providers. The Public Utility Commission of Texas also requires hotels and motels to pay assessments based on the surcharges they add to customers’ bills for use of in-room phones.

State USFs are typically funded by a percentage assessment on each contributor’s intrastate retail revenues. Retail revenues exclude all wholesale transactions (to avoid double assessments) and are typically calculated as the billed revenue from end-user retail and business customers. Some states assess carriers’ total revenues, including interstate and international revenues as well as intrastate revenues. Assessable revenues generally include the following: local and intrastate long distance toll charges, toll free (e.g., “800,” “877,” “888” calls) service charges, fees for enhanced services (e.g., call waiting, 3-way calling, caller ID, etc.) and charges for operator services, including directory assistance. Additionally, voice mail service charges, pay phone and pre-paid calling card charges, and charges for wireless and paging services, including airtime, roaming, connection and enhanced service charges are also typically assessable for purposes of calculating payments into state USFs. Revenues derived from non-regulated services e.g., yellow page advertising, Internet Service Provision (ISP), etc. are typically excluded from assessment.

The assessment rate is usually calculated annually by the state fund administrator or regulatory agency staff by forecasting the funding requirements for each of the programs supported by the state fund (see following section, entitled “State Universal Service Funds ⇔ Programs Supported”), adding an allowance for contingencies (i.e., uncollectibles, changes in the number of eligible contributors/recipients, etc.) and costs for administration and then dividing this amount by the total annual base of assessable revenues. The assessment rate can be revised during a year to reflect revisions made necessary due to unforeseen circumstances. As implied by this methodology, the same

assessment rate is typically applied to the revenues of each contributor; however, some states calculate different assessment factors for each contributor. As mentioned earlier, assessments are usually collected monthly, although small contributors may choose to pay quarterly, semi-annually or even annually. Most state funds also establish a “diminimus” annual threshold; telecom service providers whose annual payments are below this amount are exempted from contributing to the fund.

### **2.3 State Universal Service Funds ⇔ Programs Supported**

The following is a list of programs most frequently supported by state universal service funds. Only brief “bulleted” descriptions are provided, as appropriate, since many are analogous to programs detailed earlier with respect to the federal USF.

#### ◆ High Cost Support

Provides support to ensure rates are reasonably comparable between rural and non-rural areas  
Support is typically provided for lines that exceed a designated threshold for cost or revenue

- Some states set a revenue benchmark based on the statewide average rate per line,
- Others use a cost model, following the FCC’s approach, to determine a statewide average cost per line

#### ◆ Revenue Recovery/Rate Rebalancing

##### Revenue Recovery

- Replacement of revenues lost as a result of decreased federal universal service support
- Recovery of implicit subsidies previously in intrastate rates

##### Rate Rebalancing

- Reimbursement for rate reductions mandated by regulatory agency

#### ◆ Low Income Support Mechanisms

Lifeline Program  
Link-up Program

#### ◆ Emergency 911 Service

Offset costs to establish and operate emergency access and dispatch services

- ◆ State Telecommunications Relay Service
- ◆ Special Telecommunications Equipment for Physically-challenged Individuals

Provide funding for discounts or vouchers to purchase equipment

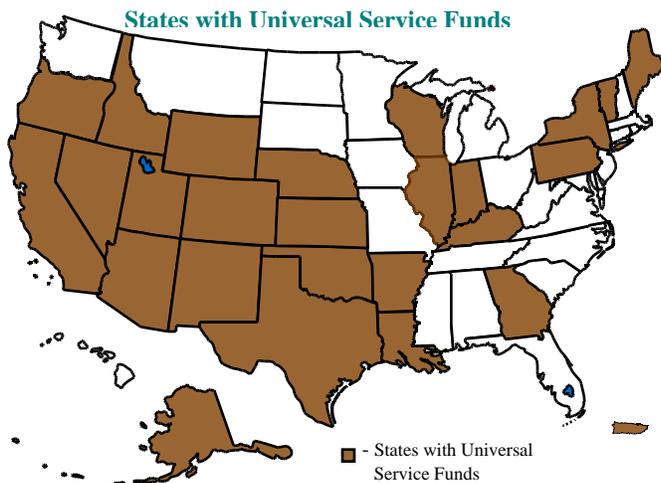
- Braille phone
- Terminals/consoles (TTY)
- Amplified telephones, artificial larynx, etc.

- ◆ State Support for Schools, Libraries & Health Care Facilities

Supplements federal USF programs

Some states provide funds for government offices to obtain advanced telecommunications services

As depicted on the following map, there are currently 26 states that have implemented or enacted legislation to form their own state universal service funds. Total annual support from these funds is about \$1.9 billion, compared to \$5.3 billion from the federal USF. Other states may support some of the programs described above, but do not have a centrally-administered mechanism to collect funds from the state's telecom service providers and disburse them to qualified recipients of the support programs. Some of these states do so using implicit subsidies in existing rate plans.



Of the states that have established state universal service programs, the following table shows the percentage that have included each of the programs outlined above.

Programs	No. of States*	Percent of States with USFs
High Cost Support	16	62%
Lifeline & Link-Up	12	46%
E-911 (Access to Emergency Services)	3	12%
Revenue Recovery – Rate Rebalancing	8	31%
TRS & Specialized Equipment, Access for Physically-challenged	10	38%
Schools, Libraries, Rural Healthcare & Government	5	19%

\* Out of the 26 states/territories with operating Universal service Funds

## **2.4 State Fund Administration and Management**

Universal Service Fund Administration requires expertise in several key disciplines including: telecommunications issues and policy; forecasting; calculation of annual assessment rates; cash and investment management; billing and collection; procedures and information systems design; funds distribution; fund sizing; regulatory support; customer interface and communications; accounting, as well as internal and external auditing. The National Exchange Carrier Association, Inc. (NECA) is a private not-for-profit corporation created in 1983 by order of the FCC to administer the nationwide access charge and revenue distribution plan. As a result of the synergies between that role and the functions necessary to effectively manage universal service funds, NECA has become the recognized leader in the administration and support of both federal and state universal service support mechanisms, having gained unparalleled expertise and experience by successfully designing, implementing and administering numerous telecommunications universal service programs in various jurisdictions. Since 1994 it has put into operation and/or administered state USFs in Vermont, Kansas, Arizona, Wyoming, Arkansas, Oklahoma, Texas, Nebraska, Nevada, Pennsylvania and, most recently, in Puerto Rico. At the federal level, NECA or one of its subsidiaries, also administers the **Interstate Telecommunications Relay Service (TRS)** fund, the **federal telecom universal service support mechanisms for high-cost areas and low-income consumers**, as well as the **federal Schools and Libraries and High-Cost/Low-Income programs**. As a result, it is qualified to detail the duties of an impartial, third-party fund administrator. These can be separated into two categories – *“Development Activities Related to Fund Planning & Start-up”* and *“Ongoing Administrative Activities.”*

### **2.4.1 Development Activities Related to Fund Planning & Start-up**

Development includes specific activities such as: providing advice on fund sizing; helping identify fund contributors and recipients; reviewing and calculating initial assessment level(s); implementing procedures and databases for collecting, managing, and disbursing funds; and construction of general accounting, reporting and enforcement controls. Operational and administrative methods and procedures are developed that include:

- a) Drafting payer remittance worksheets and support request forms, establishing procedures to collect monies from contributors and make corresponding statutory or regulatory agency approved support payments from the USF to authorized recipients,
- b) Reviewing/adopting regulator-developed assessment methodologies; contacting telecommunications providers to advise them of their payment obligations, including how to report and remit payments to the administrator,
- c) Establishing accounting and treasury procedures to ensure prompt, secure investment of fund balances and to enable disbursements to recipients in a manner satisfying statutory requirements.

Included in this phase is the design of all software necessary to manage funds received, generate payments and produce required tracking reports.

### **2.4.2 On-going Administrative Activities**

On-going activities include interfacing and consulting with the regulatory agency and fund participants, annual assessment rate calculations, billing and collection of assessments, interfacing with the financial institution, reviewing contributor (payer) reports, distributing appropriate fund disbursements, monitoring fund performance/balances, preparing required reports, and cooperating with the independent auditor who is generally chosen by the regulatory agency. Specific administrative functions include:

#### **A. Collection and Disbursement**

- a) Providing obligated telecommunications carriers with remittance forms to allow them to self-report and certify revenues and calculate their assessment due; reviewing carrier forms to ensure completeness as well as accuracy of calculations and contacting contributors whose accounts contain unexplained variances in reported revenues or USF assessments,

- b) Sending initial Notices of Delinquency to all delinquent payers; instituting appropriate procedures to issue follow-up notices to payer(s) and pursue collection of USF payments due, and maintaining logs of notices and all other correspondence related to delinquencies,
- c) Developing a support request form to facilitate (monthly) processing of funding requests; ensuring that the requestor is a qualified USF recipient and reviewing submitted forms for accuracy, and distributing funds to eligible recipients, as designated by the appropriate statute or regulatory agency,
- d) Preparing comprehensive statements of fund activity, balances and performance on a monthly, annual and/or other basis, as required by the regulatory agency.

#### **B. Investment**

- a) Investing undistributed fund monies in secure short-term instruments designed to minimize risk while providing maximum liquidity. Net investment earnings can be used to offset fund obligations, reduce future fund requirements, or as otherwise determined by the government or regulatory agency.

#### **C. Customer Relations**

- a) Establishing frequent, effective communication between the administrator and the regulatory agency as well as the entities contributing to and receiving distributions from the fund; providing prompt, professional telephone “customer service” responses to inquiries,

### **2.5 Considerations Related to Establishing & Managing Universal Service Funds – “Lessons Learned”**

As a result of being at the forefront of universal service policy and the administration of the corresponding programs for more than fifteen years, NECA has become knowledgeable about what has worked well in establishing and USFs as well as what could have been improved upon. The following “Lessons Learned” are a compilation of advice that is included herein to assist agencies considering how best to implement and manage public benefit programs:

Broad participation by industry constituents during the fund establishment and rulemaking stage reduces resistance and confusion during the implementation and on-going operational phases.

Combining all fund-supported programs (e.g. high cost, low income, E-911, TRS, etc.) into a single collection mechanism simplifies and consolidates processes and creates overall cost efficiencies.

Defining fund assessment based on a percent of retail revenues avoids double assessments by exempting wholesale transactions and ensures that contributions are collected cost-effectively in a predictable, sustainable and competitively-neutral manner. Further, precisely defining assessable and/or exempt revenue categories (e.g., payphone, wireless, 'vertical services,' etc.) clarifies requirements for participants and reduces confusion.

Payments (i.e., contributions) into the Fund should be the responsibility of carriers, not end-users. This creates an efficient transaction process of billing and collection between the administrator and the participating service providers without the need for the massive administrative requirements and costs for interfacing with each individual customer.

A monthly collection process (with options for quarterly or annual prepayment) offers administrative simplicity and consistency with the monthly billing processes employed by most service providers.

Establishing a de minimus threshold exempts small contributors from the assessment, or permitting them to less frequent payments (not monthly) into the fund, reduces the administrative burden on all parties without jeopardizing the viability of the fund.

A payment-after-collection methodology is accepted by contributors as a reasonable, conservative approach to fund management and reduces cash flow fluctuations while decreasing the possibility of funding shortfalls.

A "contingency factor" should be incorporated into at least the initial funding requirements to minimize potential cash flow fluctuations, cover initial delinquencies, and account for revenue seasonality during fund start-up.

The regulatory agency and the administrator should jointly develop a Payment Prioritization Plan to provide the administrator specific guidelines for prioritizing or pro-rating payments in the event of a fund shortfall (e.g., fund requirements are forecasted to exceed collections during a period).

Support payments disbursed from the fund should be based on explicit criteria established and approved by the regulatory agency or appropriate governing statutes.

Universal Service Funds are "self-sustaining" – e.g., they are funded by assessments from service providers in accordance with criteria approved by regulatory agencies – therefore, appropriations to “fund the Fund” or a statutory-mandated cap on Fund size are not required.

Documentation clearly delineating the roles of the state regulatory agency staff and the fund administrator streamlines processes and reduces or avoids overlaps.

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## **ENDNOTES**

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<sup>1</sup> Local loop costs refer to the costs of outside telephone wires, poles and other facilities that link each customer’s premises to the public switched network. NTS costs – costs that do not vary with the amount of traffic – are allocated between the state and interstate jurisdictions because all local loops can be used for making and receiving both intrastate and interstate calls.

<sup>2</sup> Introduction of access charges also brought about Subscriber Line Charges (SLCs), flat monthly charges assessed on end-users by the LECs to recover interstate loop costs. To ensure SLCs would not place an unfair cost burden on low income individuals, the FCC introduced Low Income support programs (described later) to waive these charges and also reduce installation costs.

<sup>3</sup> Low-income consumers living on tribal lands may participate in other programs in order to be eligible for Lifeline and LinkUp. They are: Bureau of Indian Affairs general assistance, Tribally-Administered Temporary Assistance for Needy Families, Head Start (income-qualifying standard), or the National School Lunch Program.

<sup>4</sup> For the purposes of this paper HCL support includes both high cost loop support for rural carriers (based on historical or embedded costs) and high cost support for non-rural carriers (based on forward-looking high-cost models).

<sup>5</sup> Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Report and Order*, FCC 97-157, 12 FCC Rcd 8776 (rel. May 8, 1997).

<sup>6</sup> Federal-State Joint Board on Universal Service, *Ninth Report and Order and Eighteenth Order on Reconsideration*, CC Docket No. 96-45, FCC 99-306 (rel. Nov. 2, 1999), pages 6 and 28.

<sup>7</sup> Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Report and Order*, FCC 97-157, 12 FCC Rcd 8776 (rel. May 8, 1997), para. 268-272.

<sup>8</sup> Federal-State Joint Board on Universal Service, *Ninth Report and Order and Eighteenth Order on Reconsideration*, CC Docket No. 96-45, FCC 99-306 (rel. Nov. 2, 1999), page 36, § 57.

<sup>9</sup> *Ibid.*