

Digital Age Communications Act



Preliminary Proposal of the Universal Service Working Group

Release 1.0

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I. Introduction

A. Overview

An effective universal service policy must answer several key questions: What is universal service for? Who should it subsidize? How should it be financed? In the Telecommunications Act of 1996 (1996 Act), Congress articulated the goals of making basic telecommunications services more affordable and promoting the diffusion of advanced services. In so doing, Congress directed the Federal Communications Commission (FCC) to establish support mechanisms for low-income consumers and companies serving high cost areas, schools and libraries, and rural health care providers. Congress further required all telecommunications carriers providing interstate telecommunications services to contribute to the universal service fund (USF). Despite its expansive view of universal service, Congress did not provide an effective transition plan, leaving the FCC and state public utility commissions (PUCs) to resolve conflicting objectives and political pressures.

Universal service policy in the United States remains in flux. Former AT&T President Theodore Vail's conception of universal service to justify the Bell System's provision of "one system" and "one policy" led ultimately to the creation of a rate structure and a maze of implicit subsidies that are irreconcilable with the emerging multi-platform, multi-technology communications landscape. In enacting the 1996 Act, Congress recognized in principle that explicit subsidies needed to replace implicit ones as competition transformed the telecommunications marketplace. The USF, which today provides over \$6 billion in explicit support, is financed by taxes in excess of 10 percent on end-user interstate services provided by telecommunications companies. Still, the transition from implicit to explicit subsidies is not complete, as above-cost intercarrier compensation rates continue to cross-subsidize below-cost rates for basic services. Furthermore, the administration of the program has been difficult, due partly to lax oversight and flawed distribution mechanisms, and partly to a model of federalism that creates an inconsistent set of incentives for state and federal regulators. Finally, the USF has come under increasing pressure from ongoing technological evolution and its impact on competitive forces. As a result, the USF today faces challenges of uncontrolled growth, a declining contribution base, and inefficiency and fraud.

It is all too obvious and all too easily ignored that desirable universal service policies must balance benefits and costs. The benefits of affordable communications services include the direct economic benefit to the consumers of those services, as well as external benefits to society of promoting greater economic, political, and social interactions of the population. Universal service policies have helped to ensure that more consumers enjoy connectivity to the telecommunications network at lower prices, and have financed infrastructure costs in areas which might otherwise remain unserved. But the external benefits of these policies are difficult to quantify, which can provide an excuse for unsupported exaggerations of the benefits to justify ever-greater subsidies, on the one hand, or cause others to discount these benefits altogether, on the other hand. The costs of universal service subsidies include the direct costs of financing the subsidies through some form of taxation. In some cases, the necessary taxes also typically burden the economy with additional indirect costs by distorting economic activity. Accepted methods of economic analysis show that the economic costs of distortionary taxes are substantial. Thus, the difficult challenge for universal service policy is to balance vague benefits against clear economic costs.

With these considerations in mind, the DACA Universal Service Working Group proposes a national universal service policy motivated by the goal of securing affordable basic electronic communication services for low-income households and households located in high cost areas, with transparent, easy-to-administer distribution and contribution mechanisms that are economically efficient and competitively neutral. The proposal has three key features. First, there is a cap on the overall size of the federal universal service fund. Second, performance-based block grants encourage state governments to experiment with alternative subsidy mechanisms. Third, the universal service fund is financed primarily by a “numbers tax” on consumers and businesses.

The primary goal of securing affordable basic services for households is a departure from the multiple goals of the current policy. The Working Group recognizes that, for some very rural areas, the best way to achieve affordable service for households may be to subsidize networks. A majority of the Working Group rejects the current policy of reasonably comparable rural and urban rates, because the policy is unnecessary and compromises principles of affordability and efficiency. While recognizing that the definition of basic services might evolve to encompass currently-regarded advanced services, the majority also advocates that any immediate federal funding earmarked for advanced services (with the possible exception of funding for schools, libraries and rural health centers) should be appropriated by Congress from general revenues.¹ The proposal also allows states who satisfy measured performance targets, to

¹ This is not meant to imply that drawing these funds from general revenues should result in higher taxes – instead, Congress should compare the costs and benefits of subsidizing advanced services against other federal programs.

redirect some portion of federal block grants to fund advanced services for schools and libraries and rural health centers, among other possibilities.

The proposed cap on the overall size of the fund is driven by a concern that the universal service fund is growing rapidly along with expanding entitlements. This growth is forcing an ever-increasing tax burden on consumers and businesses. A cap on the size of the fund forces the FCC to allocate scarce funds based on its assessment of the comparable affordability of basic electronic communication services across states. Moreover, limited performance-based block grants provide incentives for state authorities to design distribution mechanisms efficiently to achieve performance targets. The cap on the size of the federal universal service fund is adjusted for an appropriate inflation index, estimated productivity growth, observed population growth, and intercarrier compensation reform. Any other expansion in the size of the federal fund requires an explicit authorization by Congress.

The use of performance-based block grants is a novel feature. Federal block grants would fund distribution mechanisms that are established by state governments, subject to federal guidelines. Those states achieving measured performance targets, however, are able to redirect a portion of block grant funds for other purposes, including subsidies for public safety infrastructure improvements or advanced services for schools, libraries and rural health care centers. This mechanism gives states a financial incentive to allocate federal universal service funds efficiently to achieve affordability goals. Furthermore, the block grant mechanism gives states the authority to experiment with alternative distribution mechanisms within federal guidelines established by the FCC. A potential benefit of state experimentation is to enable the FCC to identify best practices for universal service policies, the diffusion of which may further improve the efficient achievement of universal service goals.

Finally, a broad-based numbers tax finances the universal service fund in an economically efficient way. A numbers tax is a tax on access rather than usage. Because the demand for access generally is less price elastic than the demand for usage, the distortions to economic activity are mitigated. Moreover, under the Working Group proposal, the required numbers tax is below \$1 per number. Such a small, broad-based tax is unlikely to distort economic activity very much. The Working Group recognizes that the tax may create incentives, particularly for businesses, to adopt technologies that bypass the tax, but expects that such incentives are minimal because the tax is a small one. Nevertheless, the proposal authorizes the FCC to establish an alternative minimum tax in order to control inefficient bypass of the numbers tax.

B. Methodology

This release presents the Working Group's initial proposals for a more economically rational universal service program that maintains the promise of affordable access to communications services. In so doing, the Working Group appreciated that there are efficiency distortions and political conflicts associated with any realistic universal service program, particularly one that redistributes income. For example, while a preferred way to pay for the *entire* USF may be through general tax revenues, the Working Group recognized that the necessary higher taxes are unlikely to be politically acceptable in the current environment. Therefore, much of the Working Group deliberations focused on developing "second-best" recommendations for universal service mechanisms that realistically are as effective and economically efficient as possible.

While the continued use of implicit subsidies creates inefficiencies and distortions of its own, this release does not squarely address matters relating to intercarrier compensation reform. Moreover, the framework and model statutory language adopted herein are intended to be consistent with other working groups in the DACA project. Namely, USF support is to be provided for "basic electronic communications services" to comport with the Regulatory Framework Working Group's jurisdictional grant of authority to the FCC over all "electronic communications services." Furthermore, in the event that states retain jurisdictional authority over intrastate access rates, the Working Group reached an initial consensus that the distribution of performance-based block grants should be conditioned on the states undertaking intrastate access reform. This precondition on the distribution of block grant funds, however, is not included in the model statutory language in this report because the allocation of jurisdictional authority between federal and state authorities is currently under consideration by the DACA Federal-State Framework Working Group.

There is one final and important note for the reader. By design, the Universal Service Working Group is composed of a diverse group of individuals with a variety of perspectives. This report represents the work product of the group's members in their individual capacities and the views expressed should not necessarily be attributed to the institutions with which the group's members are affiliated. It should also be emphasized that not all members of the Working Group support all aspects of the legislative proposal or endorse all of the language in this report. Notably, there were proposals set forth by Working Group members that were considered but not explicitly adopted.

Some of these policy alternatives, however, would still fit within the Working Group's adopted framework. For instance, one such proposal would eliminate USF support for a carrier in any area where a competing network provider offers similar services at a similar cost to consumers. This is a high stakes strategy that some members of the group felt uncomfortable advocating, and there was greater consensus for the notion that support for high cost areas

be confined to “very” rural areas. However, under the performance-based block grant model, a state might pursue such a policy subject to FCC guidelines.

Before turning to the Working Group’s proposals in further detail, it is necessary to revisit the justifications for universal service and examine why the 1996 Act is in need of reform.

II. Background

A. Introduction

Universal service means strikingly different things to different people, and at different times. There is still an ongoing dispute over whether Theodore Vail, president of AT&T in the early twentieth century, championed “universal service” as a policy to advance his own Bell System through *universal* access (paving the way to monopoly) or *affordable* access (*i.e.*, creating a phone system supported by cross-subsidies).² This latter interpretation was resurrected by AT&T in the 1970s to shield itself from competitive upstarts like MCI.³ Moreover, while the Communications Act of 1934 called for a “rapid, efficient, Nation-wide, and world-wide” telephone network at “reasonable prices,”⁴ it was not until the passage of the 1996 Act that Congress officially recognized universal service as an explicit (and expanded) policy goal. Under section 254 of the Act, universal service is based upon six principles: (1) affordability; (2) national access to advanced services; (3) access in high cost areas that is “reasonably comparable” to the availability of, and rates for, services in urban areas; (4) contributions drawn on an equitable and nondiscriminatory basis; (5) specific, predictable and sufficient support mechanisms; and (6) discounted access to advanced services for schools, libraries and rural health care facilities.⁵ The FCC later adopted a seventh principle that universal service support mechanisms be “competitively neutral.”

B. The Justifications for Universal Service

There are several core rationales used to justify universal service. One rationale is that the USF allows low-income and rural citizens to take part in today’s economic, social, and political opportunities. This “democratizing” aspect of universal service has widespread appeal. Universal service also may be

² See Philip J. Weiser, *The Ghost of Telecommunications Past*, 103 MICH. L. REV. 101, 108 (2005), *citing* Milton L. Mueller, Jr., UNIVERSAL SERVICE: COMPETITION, INTERCONNECTION AND MONOPOLY IN THE MAKING OF AMERICAN TELEPHONE SYSTEM 92 (AEI Press 1997)(arguing that Vail did not mean “rate subsidies to make telephone service more affordable,” but the “unification of telephone service under regulated monopolies.”).

³ See Joseph S. Kraemer, Richard O. Levine & Randolph J. May, *The Myths and Realities of Universal Service: Revisiting the Justification for the Current Subsidy Structure*, The Progress & Freedom Foundation, Special Report at 21-22 (Jan. 2005).

⁴ 47 U.S.C. § 151.

⁵ 47 U.S.C. § 254(b).

viewed as a potential vehicle for economic development in rural communities. This rationale, as illustrated by a recent call by the Congressional Rural Caucus to expand universal service support for broadband,⁶ is fueled rhetorically by the United States' comparatively weak standing in broadband penetration statistics *vis-à-vis* other developed countries.⁷

A separate justification for the USF is related to the "network externality" rationale for universal service. Under this economic theory, "[t]he value of a network to any given user is directly proportional to the number of other users who can be reached on it, and no individual user internalizes the full extent of that value in making decisions about whether to join or drop off the network."⁸ Put differently, by keeping existing users on the network or by encouraging new users to subscribe, it is presumed that the public benefits through universal service subsidies.⁹

However, it is questionable whether any significant network externalities remain today, at least for basic telecommunications services.¹⁰ For at least the past two decades subscribership has been "universal," with recent Census Bureau statistics representing that 92.4 percent of all households receive some form of phone service.¹¹ Economic research has examined the relationship between subsidized prices and patterns of subscribership. This research calls into question a political consensus that presumes the efficacy of the USF. Jerry Ellig, a Senior Fellow at George Mason University's Mercatus Center, recently summarized these findings in comments submitted to the FCC:

[M]ost research suggests that cross-subsidies from long-distance to local service generate little increase in telephone subscriptions. Consumer decisions to subscribe to telephone service are not very sensitive to the fixed monthly charge.¹² In other words, local

⁶ National Journal's Technology Daily, Daily Summary (June 28, 2005).

⁷ Broadband Business Forecast, *And Now in 16th Place: The U.S. Falls Farther Behind in Broadband* (May 3, 2005).

⁸ Jonathan E. Nuechterlein & Philip J. Weiser, *DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE* 333 (The MIT Press 2005).

⁹ See Philip J. Weiser, *Report from Center for New West Conference on Universal Service* (Apr. 2005).

¹⁰ See 47 C.F.R. § 54.101(a).

¹¹ See Federal Communications Commission, *Telephone Subscribership in the United States*, Industry Analysis and Technology Division, Wireline Competition Bureau (May 25, 2005). Notably, this is the lowest figure for household subscribership in eighteen years, and household subscribership levels in the Census Bureau's Current Population Survey have consistently declined since March 2003, an alarming trend in light of the growing cost of the USF. See Adam Peters, *The Strange Case of Fewer Subscribers: A New Wrinkle in the Universal Service Crisis?* The Progress & Freedom Foundation, Progress Snapshot 1.3 (June 2005).

¹² Jerry Ellig, *Public Interest Comments of the Mercatus Center Regulatory Studies Program on Unified Intercarrier Compensation* at 6 (May 2005), citing A.H. Barnett & David L. Kaserman, *The Simple Welfare Economics of Network Externalities and the Uneasy Case for Subscribership Studies*, 13 J. REG. ECON. 252-53 (1998); Michael H. Riordan, *Universal Residential Telephone Service*, in *HANDBOOK OF TELECOMMUNICATIONS ECONOMICS* 431 (Cave, Majumdar & Vogelsang

service has a relatively low price elasticity of demand. This elasticity appears to have fallen over time. Several recent studies using census data, for example, have found that the elasticity in 1999 was about one-third of the value in 1970, and in 2000 it was only one-eighth of the 1970 value.¹³ It may even equal zero in the United States and other developed countries.¹⁴ Studies using a variety of statistical techniques find very little evidence that the cost of monthly service affects telephone penetration rates, even for low-income households.¹⁵

Nevertheless, the social and economic justifications for universal service have led regulators to adopt policies that require telecommunications companies to cross-subsidize rural or residential service through higher rates on urban or business users and vertical services such as caller ID, ostensibly to provide “affordable” basic service across geographic areas. At the federal level, this also means that consumers in low cost states effectively subsidize consumers in high cost states. These are unique sector-specific mandates. As the Progressive Policy Institute’s Rob Atkinson explains, housing “is 70 percent more expensive in the suburbs of large metropolitan areas than in rural areas, and yet we do not have a national universal housing access program that increases rural residents’ property taxes to lower suburban residents’ property taxes.”¹⁶

C. The Need for Contribution Reform

The political dynamics of universal service also explain an economically questionable strategy: the funding of the USF through a peculiar contribution system.¹⁷ After the Fifth Circuit Court of Appeals ruled that the FCC’s authority to impose obligations on carriers to contribute to universal service extended only to “interstate” (*i.e.*, long-distance) rates under the 1996 Act,¹⁸ the FCC elected to largely support the USF through the revenues of long-distance companies and wireless carriers. These carriers pay their contributions into the USF, and the FCC (through the Universal Service Administrative Company) makes payments from the fund to support four distinct universal service programs.

eds. 2002); David L. Kaserman, John W. Mayo & Joseph E. Flynn, *Cross-Subsidization in Telecommunications: Beyond the Universal Service Fairy Tale*, 2 J. REG. ECON. 231-49 (1990).

¹³ Ellig, *citing* Christopher Garbacz & Herbert G. Thompson, *Estimating Demand with State Decennial Census Data from 1970-1990*, 21 J. REG. ECON. 326 (2002); Garbacz & Thompson, *Estimating Demand with State Decennial Census Data from 1970-1990: Update with 2000 Data*, 24 J. REG. ECON. 376 (2003).

¹⁴ Ellig, *citing* Garbacz & Thompson, *Universal Telecommunication Services: A World Perspective*, 17 Information Economics and Policy 495-512 (2005); Robert W. Crandall & Leonard Waverman, WHO PAYS FOR UNIVERSAL SERVICE? WHEN TELEPHONE SUBSIDIES BECOME TRANSPARENT 91 (Brookings Institution Press 2000).

¹⁵ Ellig, *citing* Crandall & Waverman at 94-104.

¹⁶ Robert D. Atkinson, *Internet Telephone Service, A New Era of Competition in Telecommunications*, Progressive Policy Institute (Mar. 2005).

¹⁷ See Weiser, *supra* note 9.

¹⁸ Texas Office of Pub. Util. Counsel v. FCC, 183 F.3d 393, 424 (5th Cir. 1999).

Universal service contributions from long-distance and wireless revenues are taxes on price-sensitive services, with corresponding large losses in consumer welfare.¹⁹ Using FCC data from 2002, a recent study by Jerry Ellig estimated the economic welfare losses generated by universal service assessments on long-distance and wireless service.²⁰ For long-distance, the price increase due to the USF reduced consumer welfare by about \$240 million and reduced producer welfare by about \$920 million, for a total reduction in economic welfare of \$1.16 billion.²¹ For wireless, there was a consumer welfare loss of \$39 million and a producer welfare loss of \$835 million, for a total reduction of \$874 million.²² By discouraging the use of a taxed service, the current USF policy is far more distortionary than it otherwise might be if it were funded through a more broadly-based taxation scheme, or by taxes on goods and services for which demand and supply is less price-sensitive.

With the traditional long-distance industry now in decline – combined with the practical difficulty of identifying “interstate” revenues in an era of bundled service packages - there is widespread consensus that the practice of supporting access through these revenues is unsustainable.²³ As long-distance wireline calls are increasingly displaced by wireless services, Voice over Internet Protocol (VoIP), email and instant messaging, the volume of long-distance calls and the universal service taxes it generates will deteriorate even more.²⁴ Today, the “contribution factor” applied to interstate rates amounts to 10.2 percent of these end-user revenues.²⁵ When compared to a 6.9 percent contribution factor in the third quarter of 2001, the current assessment amount reflects both a decrease in the available revenue pool for USF contributions and, to a more significant extent, increasing demand for support.²⁶

As part of its recent decision to classify digital subscriber lines (DSL) as an information service, the FCC has signaled that it may move to reform the universal service contribution methodology within the next year.²⁷ Even if this

¹⁹ See also Kraemer, Levine & May, *supra* note 3, at n. 26 (Jan. 2005)(“On average, rural households tend to be higher users of long-distance voice service. Because the High Cost Fund is supported by a surcharge on interstate long distance service, increasing requirements for high-cost funding burden rural households that make interstate calls.”).

²⁰ Jerry Ellig, *Costs and Consequences of Federal Telecommunications and Broadband Regulations*, Mercatus Center Working Paper at 21 (Feb. 2005).

²¹ *Id.*

²² *Id.*

²³ For instance, under current FCC rules wireless providers may elect to report 28.5 percent of their revenues as interstate under a “safe harbor” approach, in lieu of reporting their actual interstate telecommunications revenues.

²⁴ Atkinson, *supra* note 16.

²⁵ Contribution Factor web page (available at http://www.fcc.gov/wcb/_universal_service/quarter.html).

²⁶ See Congressional Budget Office, *Financing Universal Telephone Service* at 8 (Mar. 2005)(hereinafter “CBO Report”)(stating that between 2000 and 2003, the contribution base fell by 4.9 percent and USF outlays increased by 32 percent).

²⁷ FCC News Release, *FCC Eliminates Mandated Sharing Requirement on Incumbents’ Wireline Broadband Internet Access Services* (Aug. 5, 2005). While cable modem providers are not

proves to be the case, a new statutory framework may be needed in order to address contribution issues on a long-term basis. In addition, an even more contentious set of issues on the distribution side of the universal service equation remain.

D. The Need for Distribution Reform

The general economic shortcomings of USF distribution are relatively straightforward. Under today's system, an implicit subsidy for basic telecommunications service goes to all consumers in high cost or residential areas whether they need it or not.²⁸ Consequently, as the price of basic service falls to induce subscription by marginal consumers, the amount that long-distance prices must rise to subsidize all consumers is substantial.²⁹

Adding to the funding costs for basic services, the 1996 Act not only recognized an explicit federal universal service policy for the first time, but also expanded support to include advanced services for schools and libraries (E-Rate) and discounted access for rural health care facilities. In response, the FCC continues to develop and manage a complex system of distribution mechanisms. The four major USF programs are: (1) the High Cost support program, which provides funding to companies that serve rural areas; (2) Low-Income support, including monthly discounts on service for eligible consumers through the Lifeline Assistance Program, and discounts on connection fees through the Link-Up America Program; (3) E-Rate, which provides discounts on telephone service, Internet access, and internal connections (*i.e.*, inside wiring) for schools and libraries in economically disadvantaged areas; and (4) the Rural Health Care program, which provides discounts for telecommunications services to rural health care centers.³⁰

Although the costs of providing telephone service have fallen significantly over time,³¹ USF spending has increased from \$15 per household in 1993 to \$52

required to contribute to USF, the FCC's order requires DSL providers to continue contributions to the USF based upon the transmission component of DSL service for 270 days, unless the FCC reforms the contribution system sooner. It is estimated that the loss of contributions from DSL providers would result in a 13 percent increase in the USF contribution factor. See Drew Clark, *Broadband Ruling May Raise Long-Distance Bills*, Technology Daily (Aug. 22, 2005). Given the disparate treatment of cable modem services and DSL, the continuing taxation of DSL for universal service purposes is not technologically neutral and distorts the development of the broadband market by slowing the adoption of DSL.

²⁸ Michael H. Riordan, *An Economist's Perspective on Universal Residential Telephone Service*, in THE INTERNET UPHEAVAL: RAISING QUESTIONS, SEEKING ANSWERS IN COMMUNICATIONS POLICY 313 (Vogelsang & Compaine eds., MIT Press 2000).

²⁹ *Id.*

³⁰ CBO Report, *supra* note 26, at viii.

³¹ See Atkinson, *supra* note 16:

About 2 percent of consumer expenditures are devoted to phone service, a percentage that is unchanged over the last 15 years, despite dramatic increases in long distance calling and additional services (second lines, call waiting, mobile

per household in 2003.³² Total USF disbursements have increased from \$3.3 billion in 1999 to \$5.7 billion in 2004.³³ The 1996 Act also increased funding costs by failing to properly align universal service distributional goals between federal and state authorities. In a highly permissive fashion, the Act attempted to anticipate the onset of competition by allowing for “portable” support through the designation of additional competitive eligible telecommunications carriers (CETCs).³⁴ These carriers are predominately wireless providers that serve geographic areas where incumbents already receive support.³⁵ However well-intentioned, this policy has introduced the incentive for states to use the designation process to increase the number of competitors without regard to the actual need for CETC funding and the impact on the size of the federal fund.³⁶ Under section 214(e)(2) of the Act, states have the primary responsibility, through a “public interest” inquiry, to designate eligible telecommunications carriers (ETCs) who offer the FCC’s definition of supported services and generally advertise the availability of these services.³⁷ The result has been the use of universal service to support multiple connections to multiple networks in rural areas.³⁸ While this policy ensures competitive neutrality by subsidizing both incumbents and new entrants similarly, the cost is high. CETCs, who received less than 1 percent of high cost funding in 2001, are projected to account for 12.5 percent of total high cost support this year.³⁹ Also, under current portability rules, as a CETC increases the number of lines it serves (and therefore the amount of universal service support it receives), the per-line support for the incumbent carrier who loses lines may increase, inflating the total cost of the program.

phones). These cost reductions stem largely from the fact that labor productivity in the telephone industry has grown faster than virtually any other industry, increasing 60 percent between 1987 and 1997.

³² Stephen B. Pociask, *Universal Telephone Service: Are We There Yet?* at 2 (Sept. 22, 2004).

³³ CBO Report, *supra* note 26, at viii.

³⁴ 47 U.S.C. § 214(e) *et seq.*

³⁵ Universal Service Administrative Company, *Distribution of High Cost Support Between Wireless and Wireline Carriers* (available at <http://www.universalservice.org/hc/download/pdf/graphs/Wireless-Wireline%20CETC.pdf>)(indicating that wireless CETCs accounted for 97 percent of total CETC high cost funding in 2004).

³⁶ The FCC has established minimum requirements for the ETC designation process, but these requirements are only mandatory for those carriers (*i.e.*, “interstate” common carriers) under the FCC’s jurisdiction. The FCC recently amended the ETC guidelines to include build-out plans and additional reporting requirements, but could only “encourage” the states to adopt them. See *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order at ¶¶ 1-4 (Rel. Mar. 17, 2005).

³⁷ 47 U.S.C. § 214(e)(1).

³⁸ See Universal Service Administrative Company, *Rural Study Areas with Competition, First Quarter 2005 High Cost Appendix* (available at <http://www.universalservice.org/overview/filings/2005/Q1/HC03%20-%20Rural%20Study%20Areas%20with%20Competition%20-%201Q2005.xls>)(listing 1397 study areas with ILEC and competitive ETCs, including 660 study areas in Iowa).

³⁹ Universal Service Administrative Company, *Distribution of High Cost Support Between CETC & ILEC Through 1Q2005* (available at <http://www.universalservice.org/hc/download/pdf/graphs/CETC%20Disb%20%25%20Graph.pdf>).

The current distribution and oversight mechanisms for the High Cost and E-Rate programs, in particular, are also criticized as breeding inefficiency and fraud.⁴⁰ As a result of the FCC's *Rural Task Force Order*,⁴¹ smaller rural local exchange carriers (RLECs) continue to receive subsidies based upon rate-of-return regulation, although the FCC is scheduled to reconsider this methodology next year. Under rate-of-return regulation, support is based upon the reported investments and expenses of each company for various components of their networks. In combination with CETC funding and the FCC's *CALLS* and *MAG* orders,⁴² it is argued that the prevailing use of a rate-of-return regulation (and the indirect application of this standard to rural CETCs through the portability rules) magnifies the demand for high-cost support.⁴³ Rate-of-return regulation can distort the regulated firm's choice of inputs, so the regulated firm fails to produce at minimum cost.⁴⁴ Rate-of-return regulation can also reduce entrepreneurial

⁴⁰ See, e.g., Jerry Hausman & Howard Shelanski, *Economic Welfare and Telecommunications Regulation: The E-Rate Policy for Universal Service Subsidies*, 16 YALE J. ON REG. 19 (1999); News Release, Office of the United States Attorney, Western District of Missouri, *Two New York Men Plead Guilty to \$9 Million CassTel Mail, Wire Fraud Conspiracy* (Feb. 23, 2005) (describing how the owners of Cass County Telephone Company, a rural carrier in Missouri, defrauded the USF out of \$8.9 million between 1998 and 2004 by overstating expenses); Paul Davidson, Greg Toppo & Jayne O'Donnell, *Fraud, Waste Mar Plan to Wire Schools to Net*, USA Today (June 8, 2004). In June 2005, the FCC launched a broad inquiry into the management, administration and oversight of the USF program. See *In the Matter of Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 05-124 (Rel. June 14, 2005).

⁴¹ *In the Matter of Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, CC Docket No. 96-45, Fourteenth Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking, 16 FCC Rcd. 11244 (Rel. May 23, 2001).

⁴² The *CALLS* and *MAG* orders made a portion of implicit access subsidies explicit through additional subscriber line charges and new USF distribution mechanisms. See *In the Matter of Access Charge Reform, et al*, CC Docket No. 96-45, Eleventh Report and Order, 15 FCC Rcd 12962 (Rel. May 31, 2000); *In the Matter of Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, CC Docket No. 96-45, Fifteenth Report and Order, 16 FCC Rcd. 19613 (Rel. Nov. 8, 2001); see also Testimony of Jack H. Ryner, President and CEO, TelAlaska, Inc. before the Senate Commerce Committee (Apr. 2, 2003) ("The FCC has made rural local exchange carriers even more dependent on USF . . . by substituting universal service support for access charge recovery.").

⁴³ Total high-cost support between 1999 and 2004 doubled from \$1.7 billion to \$3.4 billion dollars. CBO Report, *supra* note 26, at viii (Mar. 2005). See also Jim Chen, *Subsidized Rural Telephony and the Public Interest: A Case Study on Cooperative Federalism and its Pitfalls*, 2 J. TELECOMM. & HIGH TECH. L. 307, 358-360 (2003); Herbert Hovenkamp, *Antitrust and the Regulatory Enterprise*, 2004 COLUM. BUS. L. REV. 335, 361-62 (2004).

⁴⁴ See Leon Courville, *Regulation and Efficiency in the Electric Utility Industry*, 5 BELL J. ECON. 53; Paul M. Hayashi & John M. Trapani, *Rate of Return Regulation and the Regulated Firm's Choice of Capital-Labor Ratio: Further Empirical Evidence on the Averch-Johnson Effect*, 42 S. ECON. J. 384 (1976); H. Craig Petersen, *An Empirical Test of Regulatory Effects*, 6 BELL J. ECON. 111 (1975); Robert M. Spann, *Rate of Return Regulation and Efficiency in Production: An Empirical Test of the Averch-Johnson Thesis*, 5 BELL J. ECON. 8; E. Ray Canterbury, Ben Johnson & Don Reading, *Cost Savings from Nuclear Regulatory Reform: An Econometric Model*, S. ECON. J. 554 (1996).

incentives to squeeze out unnecessary costs and undertake valuable but risky innovation.⁴⁵ The resulting rates might be considered “just and reasonable,” because they reflect costs, but the costs themselves are inflated. In such an environment, some subsidies merely cover artificially inflated costs or allow the companies to pay high dividends to investors, rather than lowering prices for consumers.⁴⁶ The actual amount of waste is unknown, but one consultant’s report concluded that many of the incumbent phone companies subject to rate-of-return regulation have substantial inefficiencies.⁴⁷

E. The Role of Public Choice Theory

The final dimension of USF reform relates to political economy. Judge Richard Posner has powerfully observed that the presence of internal subsidies in regulated industries is to allow policymakers to move money between competing interest groups through “taxation by regulation.”⁴⁸ Although the 1996 Act specifically calls for a shift to an explicit universal service support system,⁴⁹ it provides insufficient motivation to induce regulators to take this course. As Jonathan Nuechterlein and Professor Phil Weiser explain in further detail:

From the short term perspective of many regulators, the political costs of genuine universal service reform may outweigh the benefits. And the 1996 Act contains no specific time frame for the elimination of the old implicit subsidies, leaving most regulators content to confront this challenge gradually. In effect, these regulators hope that, at least until they have moved on to their next jobs, competition will progress slowly enough that carriers of last resort (the traditional incumbents) can stay financially healthy without any need for abrupt, politically controversial changes to the system. If this hope appeared tenable before the advent of VoIP, it now seems increasingly delusional.⁵⁰

⁴⁵ See Israel Kirzner, *The Perils of Regulation: A Market Process Approach*, in DISCOVERY AND THE CAPITALIST PROCESS 119-49 (University of Chicago Press 1985).

⁴⁶ For instance, a recent article in *USA Today* describes how the XIT Rural Telephone Cooperative, which serves customers in rural areas of Texas, returned a \$375 dividend to its customers even though the average telephone fees for each customer amounted to \$206. Coincidentally, the cooperative received \$2.6 million in federal universal service support, \$650,000 in state support, and \$2.9 million through access charges. See Paul Davidson, *Fees Paid By All Phone Customers Help Rural Phone Firms Prosper*, *USA Today* (Nov. 17, 2004).

⁴⁷ The study, conducted for Western Wireless and submitted in comments to the FCC, concluded that RLEC corporate operations expenses total \$545 million (33 percent) higher than they would be if all of these companies were as efficient as the top-performing 25 percent of companies in each size-based group. See Economics and Technology Inc., *Lost in Translation: How Rate of Return Regulation Transformed the Universal Service Fund for Consumers into Corporate Welfare for the RLECs* (Feb. 2004), submitted by Western Wireless in Comments to the FCC, CC Docket No. 96-45 (Feb. 13, 2004).

⁴⁸ Richard A. Posner, *Taxation by Regulation*, 2 BELL J. ECON. 22 (1971).

⁴⁹ See 47 U.S.C. § 254(e).

⁵⁰ Nuechterlein & Weiser, *supra* note 8, at 336.

F. Conclusion

To date, there continues to be little movement on how the entire USF program should be reformed, with legislators and stakeholders using the opportunity to argue for a diverging set of policy prescriptions.⁵¹ These proposals typically give little consideration to the impact of universal service contribution and distribution mechanisms on consumer welfare. In the face of rapid technological change, which is currently exemplified by the deployment of VoIP by a host of providers, the growing tension between competition and subsidization in communications markets will require a more refined and fiscally sound model of universal service. As consumers come to rely upon more cost-efficient communications services that erode the barriers of distance and density, basic services may be provided through platforms which might not require universal service support and which might provide consumers with better service. Policymakers should therefore recognize that we are entering a new era of communications that will provide routes of “escapability” and continually challenge how universal service is collected and distributed.⁵²

In order to be fully effective, these universal service policies should be guided by a set of fundamental principles. We now turn to describe the principles adopted by the Working Group, which inform the recommendations that follow for distribution and contribution mechanisms.

III. Universal Service Principles

A. Introduction

The Working Group reached a general consensus that the following principles should animate a new universal service program:

- (a) **Affordability.** Quality basic electronic communications services shall be affordable to all low-income households and households in high cost areas of the nation.

⁵¹ See, e.g., Anne Marie Squeo, *In Tiny Towns, New Call Options Shake Up an Old Phone System*, WALL ST. J. at A1 (Feb. 22, 2005):

The highly fluid situation promises a high-stakes free-for-all, pitting rural interests against cities, tiny phone companies against giants, and purveyors of high-tech communications services against traditional players. Internet-phone services like Vonage say that broadband lines should be subsidized. Cable companies would prefer not to pay into the fund or take anything out for phone services they're rolling out. Regional Bell Companies such as Qwest Communications International Inc. complain their customers in western states like Montana and North Dakota aren't receiving as much funding as those in southern states like Mississippi and Alabama. Wireless companies want more USF funding for rural areas, while local rural companies and cooperatives say their wireless counterparts should get less because of their lower cost structure.

⁵² See Raymond Gifford, *Universal Service: Is it Still Relevant?* The Progress & Freedom Foundation, Progress on Point 11.18 (Oct. 2004).

(b) Efficiency. Universal service support and contribution mechanisms for the provision of affordable basic electronic communications services shall burden the economy no more than is necessary.

(c) Neutrality. Neither the distribution of universal service support nor the collection of universal service contributions shall discriminate in favor of or against any company or technology.

(d) Transparency. Rules governing universal service mechanisms shall be clear and enforceable. The goals and outcomes of universal service support shall be clearly defined and identified.

Well-designed universal service policies proceed from several basic principles. Two of the principles - affordability and efficiency - are fundamental. The other principles – neutrality and transparency – are corollaries or are complementary. These basic principles together serve several useful purposes. First, they provide guidance for the design of desirable universal service policies. Second, they provide criteria for comparing alternative proposed universal service mechanisms. Third, they contribute to a language for discussing universal service policies.

B. Affordability

Under the model adopted by the Working Group, the primary goal of universal service policies in the United States is to make basic electronic communications services affordable to households.⁵³ Affordability means that a household is able to pay for basic communications services without serious detriment to its welfare. In turn, affordability depends on the prices of the services, household income, and the cost of living (for goods and services other than basic communications services, e.g. housing). For example, basic electronic communications services might be regarded as affordable to a household if the expense for reasonable quantities of basic services did not exceed 3 percent of the household's income. Furthermore, this threshold expenditure share appropriately depends on the cost of living in a particular geographic area. The application of such criteria would make rates comparably affordable in different geographic areas. Given this concept of affordability, targeting universal service support to low-income households and areas where the cost of providing basic electronic communications services is high is especially appropriate. Affordability is most likely an issue for poor households, and, in high cost areas, is likely also to be an issue for a broader range of lower income consumers. Moreover, adjusting levels of support for differences in the cost of living in different geographic areas is appropriate, because higher prices

⁵³ For purposes of this report, an important distinction exists between the notions of “affordability” for households and “support” for households. Under the model adopted by the Working Group, universal service support may be targeted directly to households (i.e., through a voucher program) or toward the infrastructure used by carriers to provide households with affordable access (i.e., through an auction model or another distribution mechanism, such as forward-looking support). See section 5(b) of the model statute.

for necessities like food and housing reduce the purchasing power of the household's net income after expenses for basic electronic communications services.

The 1996 Act, which introduced affordability as an explicit policy goal, also stipulated that rates in "rural, insular, and high cost areas" should be "reasonably comparable" to rates in urban areas.⁵⁴ The FCC subsequently interpreted reasonably comparable rates to mean that rates fall within two standard deviations of the national average, while allowing states to explain reasonable comparability in other ways.⁵⁵ A problem with the FCC's interpretation is that it violates the affordability principle by failing to adjust appropriately for differences in income and the cost of living. For example, a wealthier high cost community clearly does not require same level of support as a poorer one, and poor households in higher cost of living areas may find the same rates less affordable. In contrast, the concept of comparable affordability requires that the expense for reasonable quantities of basic communications services is no more detrimental to household welfare in one area of the country than another. A further requirement that rates be reasonably comparable in different geographic areas is therefore unnecessary, and potentially in conflict with the affordability principle.

The goal of preserving and advancing universal service refers generally to achieving high levels of subscription to basic electronic communication services everywhere in all regions of the country. In the model adopted by the Working Group, the FCC has the authority to determine the definition of basic electronic communications services, including appropriate quality standards, in consultation with the Joint Board. Initially, the definition of basic electronic communications services coincides with the FCC's current definition of services supported by universal service pursuant to Section 254 of the 1996 Act.

In a departure from the 1996 Act, the Working Group consensus did not include an explicit universal service goal of promoting access to advanced electronic communications services, although this policy is subject to several qualifications discussed below. Even if the network externality justification applies more strongly to broadband than narrowband services (e.g., the government could accelerate the widespread adoption of broadband by lowering its price, while the possibility that a large number of narrowband subscribers would fall off of the network in the case of a price increase is remote due to low price elasticities),⁵⁶ the argument does not justify expanded USF subsidies for broadband services. The current universal service program already fosters durable reliance interests and fails to contain costs. Any immediate expansion of the program would only exacerbate these problems. Furthermore, in the United

⁵⁴ 47 U.S.C. § 254(b)(3).

⁵⁵ *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, FCC 03-249 (Rel. Oct. 27, 2003).

⁵⁶ See Nuechterlein & Weiser, *supra* note 8, at 352-54.

States today, the “pace of broadband adoption is equal to or faster than that for other major information technologies, and the case for massive government subsidies has not yet been proven.”⁵⁷

It is important to recognize that legislatures have other tools at their disposal for promoting affordable access to advanced services. Alternative policy strategies – such as freeing up spectrum in rural areas – are important means of supporting broadband deployment in these communities.⁵⁸ Specific policies to promote the development of advanced communications networks might be funded from general revenues appropriated by Congress, rather than from universal service contributions that tax the services the government seeks to promote. For example, one possibility is an expansion of the existing Rural Broadband Access Loan and Loan Guarantee Program, which is managed by the Rural Utilities Service (RUS) under the Department of Agriculture (USDA). The primary goal of the program, which disbursed about \$1.1 billion of an available \$2 billion in 2004,⁵⁹ is to make accessible loans at more favorable interest rates than would otherwise be available to borrowers through the private sector. The RUS program, however, has been controversial. While there is a programmatic preference for the support of providers that bring broadband to unserved areas, there has been criticism of RUS-subsidized overbuilds in areas where private companies are already furnishing broadband service,⁶⁰ or subsidized deployment to wealthy communities that are nevertheless presently unserved.⁶¹ At the other end of the spectrum, RUS has come under fire by potential operators for using an unduly complex application process.⁶² The RUS program also may be ineffective or inefficient. In a recent empirical analysis of federal and state policies designed to facilitate broadband penetration in underserved areas, Scott Wallsten of AEI-Brookings found that there is no direct statistical correlation between the RUS program and improvements in rural broadband subscriptions, although there is a significant increase associated with USDA’s broader telecommunications access program (of which RUS is a part).⁶³ However, the analysis also suggested that the USDA program is not cost-

⁵⁷ *Id.* at 353.

⁵⁸ To the extent that policy strategies can facilitate the deployment of wireless broadband in high cost areas, further discussion of this issue is properly deferred to the Working Group on Spectrum Policy.

⁵⁹ Comm. Daily, Wireline Report (Nov. 16, 2004).

⁶⁰ Shirley Brady, *Meet the System-Mitchell, S.D.: Piling On in Corn Country . . . Feds Attack Local S.D. Cable Op*, Cable World (Jan. 24, 2005); Statement of Richard Cimerman, National Cable & Telecommunications Association before the United States House of Representatives Congressional Rural Caucus Telecommunications Task Force on Voice over Internet Protocol (Mar. 9, 2005).

⁶¹ Comm. Daily, *Rural Telecom Task Force Focuses on RUS During Hearing* (Nov. 18, 2004).

⁶² Josh Long, *Up for Grabs: Government Money for Broadband Deployment Going Unclaimed*, XChange (June 1, 2004).

⁶³ Scott Wallsten, *Broadband Penetration: An Empirical Analysis of State and Federal Policies*, AEI-Brookings Joint Center for Regulatory Studies, Working Paper 05-12 at 14 (June 2005).

efficient, estimating that the program spends “on average about \$1428-\$1667 per additional person who gains access to at least one broadband provider.”⁶⁴

Although access to advanced services is not an explicit policy goal, the Working Group’s proposal does not entirely proscribe federal and state agencies from adopting policies to either directly or indirectly promote access to advanced services. Current universal service funds are used by companies to support the underlying infrastructure used to provide basic services. The Working Group proposal allows states to adopt distribution mechanisms to support infrastructure.⁶⁵ This infrastructure may be upgraded to support advanced services, which provides carriers with enhanced revenue opportunities. Furthermore, the proposal allows states that meet the national performance goal to immediately direct unused funds toward “non-basic” services, including advanced services. Finally, under the model adopted by the Working Group, the definition of basic electronic communications services might evolve to encompass currently regarded advanced services, in order to ensure that consumers have effective access to prevailing communications networks. Under these circumstances, the FCC would have the flexibility to adopt guidelines whereby support for basic services (that might otherwise be highly affordable on an incremental-cost basis) may “flow through” and support the underlying infrastructure used to provide the services.⁶⁶ Thus, for instance, a cable provider offering basic electronic communications services over a VoIP platform may become eligible to receive funding, or a consumer utilizing an independent VoIP application over a broadband connection as their primary line may receive a voucher which would flow through to subsidize the underlying broadband service.

On the related question of whether the universal service program should continue to support affordable access to advanced services for schools, libraries and rural health care facilities, the Working Group reached a “split consensus.” The current E-Rate program provides schools and libraries with discounts ranging from 20 percent to 90 percent, depending upon the percentage of students eligible for participation in the federal free and reduced price school lunch program, and whether they are located in an urban or rural area. As most schools and libraries now have connectivity to advanced services,⁶⁷ there was widespread consensus that the E-Rate program should be reformed. However, there was some disagreement on how these programs should be treated on a going-forward basis.

⁶⁴ *Id.*

⁶⁵ See section 5(b) of the model statute.

⁶⁶ *Id.*

⁶⁷ See United States Government Accountability Office, *Greater Involvement Needed by FCC in the Management and Oversight of the E-Rate Program*, Report to the Chairman, Committee on Energy and Commerce, House of Representatives at 21 (Feb. 2005)(“By 2002, 99 percent of public schools and 92 percent of public school instructional classrooms had Internet access.”)(hereinafter “GAO E-Rate Report”).

This split consensus may reflect, at least in part, the ongoing debate surrounding the effectiveness of the E-Rate program. For example, recent research suggests that there is only a tenuous connection between the availability of computers in schools and increased student learning and performance.⁶⁸ The most sophisticated analysis of the E-Rate program has been conducted by the Urban Institute, under contract to the U.S. Department of Education.⁶⁹ This study found that funding is effectively targeted to schools in impoverished or rural areas,⁷⁰ and that schools receiving subsidies reported increases in deployment of Internet technology.⁷¹ However, the study also found that Internet connectivity for both high-poverty and low-poverty schools increased after implementation of the schools and libraries program,⁷² but connectivity for both was also increasing prior to the program.⁷³ More recently, the Government Accountability Office stated that due to the FCC's lack of "useful performance goals and measures to assess the specific impact" of E-Rate,⁷⁴ it is an open question whether "the extent to which increases in connectivity can be attributed" to the program.⁷⁵

Therefore, under one shared perspective among a portion of the Working Group, and due to the additional distortionary impact of funding these programs, discounts for advanced services in schools and libraries and rural health care facilities would primarily occur (if at all) outside the scope of the universal service program.⁷⁶ House Commerce Committee Chairman Joe Barton recently suggested that the E-Rate program be abolished or, in the alternative, funded through general revenues.⁷⁷ If the latter approach is adopted, such a program should: (1) have concrete, identifiable goals; (2) be justified in advance by a study which illustrates that the benefits of an E-Rate program outweigh the costs; (3) encourage the use of low-cost technologies and guard against "crowding out"

⁶⁸ See, e.g., Thomas Fuchs & Ludger Wöessmann, *Computers and Student Learning: Bivariate and Multivariate Evidence on the Availability and Use of Computers at Home and at School* at 4 (Oct. 2004) ("[T]he evidence so far does not suggest that computers have a substantial impact on the economic and educational outcome of individuals, neither in terms of worker wages nor in terms of student learning. Despite numerous claims by politicians and software vendors to the contrary, the evidence so far suggests that computer use in school does not seem to contribute substantially to students' learning of basic skills such as math or reading.").

⁶⁹ Michael J. Puma *et al*, *The Integrated Studies of Educational Technology: A Formative Evaluation of the E-Rate Program*, draft study, Urban Institute (Oct. 2002), available at http://www.urban.org/UploadedPDF/410579_ERateFinalReport.pdf.

⁷⁰ *Id.* at 19-21.

⁷¹ *Id.* at 55.

⁷² *Id.* at 5.

⁷³ *Id.* at 21.

⁷⁴ See GAO E-Rate Report, *supra* note 67, at 19.

⁷⁵ *Id.* at Summary.

⁷⁶ As the Working Group proposal allows states to distribute "unused" funds toward "non-basic" electronic communications services, states would have the option to target support to these entities.

⁷⁷ Lynn Stanton, *Barton Proposes Funding 'E-Rate' from General Tax Revenues*, Telecommunications Reports (Apr. 12, 2005).

effects; and (4) be administered through a more appropriate agency, such as the Department of Education.

Under the other shared perspective of the Working Group, funding for the E-Rate and rural health care programs would continue, but the E-Rate program would be streamlined to exclude support for “internal connections” in light of current penetration rates. Internal connections, which account for a significant portion of the E-Rate, include wiring and other equipment necessary to extend networks within schools and libraries.⁷⁸ Notably, the E-Rate component of the USF would continue to fund discounts for telecommunications services (such as telephone service and data lines) and Internet access. This program could conceivably be included in the performance-based block grant proposal, with funding going to states based on the current amount that each receives, and with guidelines that encourage experimentation and the use of low-cost technologies. While language reflecting how this option would operate in practice is not included in the proposed model statute, we note how this proposal might impact the size of the proposed contribution and distribution mechanisms throughout the remaining sections of this report.

C. Efficiency

Economic efficiency appropriately guides the design of contribution and distribution mechanisms. In particular, taxes that finance universal service subsidies should distort economic behavior as little as possible, and subsidies should be no larger than necessary to achieve affordability goals. Furthermore, the marginal social costs of universal service subsidies, including the efficiency losses caused by distortionary taxes, should not exceed the marginal social benefits.

The most efficient way to raise a given amount of tax revenue is to tax more heavily those goods and services in relatively inelastic demand. The current universal service contribution mechanism taxes the usage of long-distance telecommunications and wireless service, the demand for which is fairly elastic. The effect of the tax is to raise the price of these services to consumers, causing consumers to purchase less of these services. Such behavioral adjustments sacrifice net value that consumers otherwise would achieve from long distance telecommunications. Jerry Hausman has estimated that every \$1 raised by taxing interstate services costs the economy an additional \$1.05 to \$1.25 in lost economic efficiency.⁷⁹ It is economically more efficient to tax consumers' access to communications services, because access demand is very

⁷⁸ In 2003, “internal connections” accounted for \$1.5 billion of the \$2.6 billion in E-Rate commitments. See Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size for the Third Quarter 2005 at 22 (May 2, 2005).

⁷⁹ Jerry Hausman, *Taxation by Telecommunications Regulation: The Economics of the E-Rate* (AEI Press 1998).

inelastic, at least for ordinary telephone service. Funding out of general revenues is also preferable, although more difficult politically.

Universal service subsidies should target households who otherwise would not subscribe to basic electronic communications services because of affordability. Current Lifeline and Link-Up policies appropriately target low income populations based on specific eligibility criteria. Under this “household” perspective, it is appropriate to target high cost support only to households below the median income level of the state (or some other appropriate threshold), because wealthier households can afford basic communications services at substantially higher rates.

Current high cost support mechanisms focus on supporting networks rather than households. Under this “infrastructure” perspective, direct support for providers of network services may contribute to making basic communications services more affordable to all households served by the network in a geographic area. It is more efficient, however, to target support to households who otherwise are prone to discontinue subscription. Untargeted support increases the size of the universal service fund beyond what is necessary to achieve the goal of affordable service, and the funding of increased revenue requirements places a greater burden on the economy from distortionary taxes.

Finally, economic efficiency is an important consideration for evaluating the merits of expanding the definition of basic electronic communications services. Such expansion may contribute to social welfare by making currently regarded advanced services more widely available. At the same time, expanding the range of communication services receiving universal service support might increase the size of the fund, and thus burden the economy through the contribution mechanism.

D. Other Principles

Basic electronic communications services supported by universal service subsidies should be provided by the most efficient providers using low-cost technologies. In some cases, the most efficient universal service provider might rely on network services provided by another company, who also may be in competition to provide basic communications services. Market mechanisms generally are the preferred means for selecting the most efficient service providers. Therefore, universal service mechanisms should not “tilt the playing field” in favor of any particular company or technology. From this perspective, the neutrality principle is a corollary of the efficiency principle.

Transparency aids public scrutiny that safeguards the other principles. Mechanisms that are easily bypassed either create large enforcement costs, or are unsustainable if enforcement is lax. Non-transparent mechanisms also may violate the other principles. Traditionally, and currently to a lesser but still

significant extent, a system of above-cost access charges on long distance telecommunications implicitly subsidizes universal service. As markets become increasingly competitive, implicit subsidies and distorted prices only lead to more economically inefficient decisions by producers and consumers. For example, incentives to avoid taxes on interstate revenues might lead consumers to adopt an inferior VoIP service. While VoIP ultimately might become a superior technology to ordinary landline service, tax avoidance might cause an inefficient premature adoption of the new technology. Similarly, a tax avoidance incentive might cause consumers to make long-distance calls on wireless networks, which are more easily congested than landline networks, because it is administratively more difficult to identify the interstate component of flat-rated, bundled wireless plans.

Another aspect of transparency involves clear definition and measurement of the outcomes the universal service program is supposed to produce. Part of the reason that the current universal service programs are in disarray is that they have ill-defined and often unarticulated goals, and the federal government expends little effort to ascertain whether the programs actually achieve their intended outcomes. Independent academic research, however, suggests that current universal service programs either have little effect on their intended outcomes, or produce outcomes at very high cost.⁸⁰ If a primary goal of universal service is to foster comparable affordability, then the federal government needs to define how affordability is to be measured, collect comparable statistics on affordability, and perform scientifically sound program evaluations to determine whether universal service programs have caused improvements in affordability, and by how much. This information should be included in the FCC's triennial review process required under the proposed model statute.

E. Conclusion

There is a rough consensus that well-crafted universal service policies can serve socially desirable ends of facilitating the economic, political, and social engagement of citizens. At the same time, unconstrained good intentions can be manipulated to serve special interests and impose considerable costs on the rest of society. The principles of universal service guide the design of universal service policies to achieve efficiently the narrow goal of making basic electronic communications services affordable to all households in the United States.

⁸⁰ See Robert W. Crandall & Leonard Waverman, *WHO PAYS FOR UNIVERSAL SERVICE? WHEN TELEPHONE SUBSIDIES BECOME TRANSPARENT* 18-21 (Brookings Institution Press 2000).

IV. Universal Service Distribution Mechanisms

A. Introduction

Many stakeholders have commented on, and the FCC and Joint Board have considered, a number of ways to reduce the cost of the current universal service fund in high cost areas. These proposals have included basing support on a carrier's own costs (either through rate-of-return or forward-looking costs), transitioning all carriers to a model based on forward-looking costs, aggregating lines or combining study areas, strengthening ETC designations, freezing the amount of per-line support, limiting the number of ETCs that can serve a study area, imposing study area funding caps, and increasing oversight through independent audits.

In its discussion of distribution mechanisms, the Working Group did not limit itself to a consideration of reforms within the strictures of the current framework. Instead, the Working Group primarily explored alternative market-based mechanisms which would encourage competition in high cost areas and drive down the cost of funding by shifting the burden for determining the amount of support to competing companies who seek support. The discussion of each therefore includes a series of sub-issues that would deserve further consideration.

B. Providing Support to Households through Vouchers

The affordability principle is stated from the perspective of households, and may be interpreted to suggest that carriers' receipt of subsidies be tied directly to their actual provision of service to eligible households. A voucher model, which would provide real-time support to eligible carriers, is inherently "performance based" and therefore creates incentives for carriers to provide services that appeal to consumers through lower prices, innovation and high service quality. Moreover, appropriately based voucher programs satisfy the neutrality principle.

A voucher program may be an appropriate mechanism for both high cost and low-income support. Portable vouchers can provide eligible customers with additional purchasing power. Such a program could take many forms.⁸¹ Household eligibility in high cost areas might be means-tested, and the high cost voucher could be attached to all consumers below a stipulated level in a given area. The size of the high cost voucher relative to the price of basic services could depend on a comparable affordability standard (*i.e.*, the cost of service, the level of median income, and the cost of living). Primary line carriers might receive support payments proportional to the number of eligible households served, with each eligible household paying part of its communications bill with a

⁸¹ A more fully developed description of one such alternative by Bob Atkinson and the Columbia Institute for Tele-Information is provided in the attached Appendix to this report.

voucher that the carrier can redeem. In the alternative, it is possible that the size of the high cost voucher could be determined by an auction process, in which firms bid the size of the subsidy they would need to commit to be the carrier of last resort.⁸²

A voucher program may present administrative issues that would need to be resolved. For instance, the model statutory language adopted by the Working Group limits universal service support to a single connection⁸³ – this raises novel questions on how to determine support for a household with multiple residents using wireless phones.⁸⁴ In its recommendation to the FCC in 2004, the Joint Board concluded that a primary line restriction would be the best option to ensure the sustainability of the universal service fund,⁸⁵ with a caveat that such an approach would present issues of administrative feasibility that would need to be overcome.⁸⁶ Vouchers are also criticized on the grounds that they may not be able to cover the fixed costs of an underlying network. However, there is no reason in principle why voucher programs cannot be structured to compensate fixed costs.

C. Providing Support to Infrastructure through Auctions

An alternative perspective is that universal service support should be paid directly to providers of infrastructure in high cost areas. The concept of

⁸² See, e.g., Paul Milgrom, *Procuring Universal Service: Putting Auction Theory to Work*, Lecture at the Royal Swedish Academy of Sciences at 5 (Dec. 9, 1996) (“[One policy option] calls for the use of an auction in which bidders name the price they require to accept a universal service obligation in a service area. This means that the selected suppliers stand ready to offer a prescribed basic package at a prescribed “affordable price.”).

⁸³ Over two years ago, NASUCA estimated that a primary line restriction would result in USF savings of \$336 million annually. *In the Matter of Federal-State Joint Board on Universal Service*, Reply Comments of the National Association of State Utility Consumer Advocates at 17-18 (June 3, 2003). As the number of CETC lines that receive support have increased dramatically over the past two years, one can assume that the total cost savings from a primary line restriction would be even greater today.

⁸⁴ *But see id.* at 13 (June 3, 2003) (“These same [administrative] problems are encountered in applying SLCs, approving Lifeline eligibility and in designating primary long distance carriers, and are dealt with on a daily basis by carriers, state regulators and the Commission.”).

⁸⁵ Congress subsequently prohibited the FCC from considering a primary line restriction by including restrictive language in an appropriations bill. See *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order at ¶ 5 (Rel. Mar. 17, 2005) (“[W]e do not adopt the recommendation of the Joint Board to limit high-cost support to a single connection that provides access to the public telephone network. Section 634 of the 2005 Consolidated Appropriations Act prohibits the Commission from utilizing appropriated funds to “modify, amend, or change” its rules or recommendations to implement this recommendation.”) This restriction expired on September 30, 2005.

⁸⁶ *Id.* at ¶ 3. The Joint Board also recommended that universal service support be “restated” to account for a primary line restriction. The primary line restriction was opposed on the grounds that (1) universal service is intended to support infrastructure, and there is no relation between a primary line restriction and the costs of deploying a network; (2) second lines would be unaffordable; (3) it would harm small businesses, and; (4) wireless carriers would be excluded from receiving funding under most circumstances.

supporting networks in very rural areas to ensure reasonably priced services for households is thus a notion of “affordability” that a part of the Working Group advocated. This perspective suggests that the most efficient carrier of last resort in high cost areas is often an incumbent wireline provider, and, for the foreseeable future, the fixed-cost nature of these networks will require universal service support. While wireless services in rural areas continue to evolve, they are not necessarily less costly and may be less available in low-density areas (*i.e.*, putting up a tower to serve one customer is more costly than serving that customer with an existing wireline facility). In addition, wireless services may often rely upon the wireline infrastructure to haul traffic to the wireless switching office. Until wireless or other platforms can provide basic electronic communication services in high cost areas on a widespread basis at affordable rates, this perspective sees a tension between the reality of recovering fixed infrastructure costs of networks in these markets and the feasibility of a distribution mechanism relying solely on vouchers.

A market-based mechanism to provide support through an auction process can, however, be used to support infrastructure in these areas. The use of competitive bidding, most notably through a proposal by GTE, was explored by the Joint Board and the FCC in the wake of the 1996 Act. Under an auction mechanism, potential network service providers might bid a price to offer services as a carrier of last resort to households in a high cost area. The auction may provide competition “for the market” by awarding a temporary USF franchise to the lowest bidder.⁸⁷ In line with the neutrality principle, the auction would be open to all companies and all technologies. Properly designed, auctions force carriers to reveal their true costs and increase their incentives to innovate and become more efficient.⁸⁸ Moreover, the traditional problems associated with regulatory cost and price-setting are largely avoided.⁸⁹

Auction systems have been utilized successfully in other countries. For instance, a recent International Telecommunication Union report illustrates how auctions are effectively being used in Latin America for the provision of pay phones and Internet access.⁹⁰ Recommending that competitive bidding should always be a feature of a universal service system, the report found that “the actual winning bid amounts awarded in Latin American programs were generally well below the maximum subsidy amount calculated by the USF Administrator to be required to provide service.”⁹¹

⁸⁷ For further descriptions of auction designs that allow for support to multiple bidders, see Milgrom, *supra* note 82; Dennis Weller, *Auctions for Universal Service Obligations*, Presentation to the ITS (June 1998).

⁸⁸ See Gifford, *supra* note 52.

⁸⁹ *Id.*

⁹⁰ Edgardo Sepulveda, *ITU/CTO Draft Model Universal Service/Access Policies, Regulations and Procedures Part II* (2002); see also Björn Wellenius, Vivien Foster & Christina Malmberg-Calvo, *Private Provision of Rural Infrastructure Services: Competing for Subsidies*, World Bank Policy Research Working Paper 3365 (Aug. 2004).

⁹¹ Sepulveda, *supra* note 87, at 10.

Providing support for infrastructure does present durability and stranded cost concerns.⁹² Subsidies for infrastructure based on current technology may become a barrier to entry for network service providers using new technologies, until the next auction cycle.⁹³ However, this concern may be addressed through the auction process, in that auctions will be held at appropriately gauged intervals which incorporate new information about changes in the marketplace. Auctions are also criticized on the ground that they will encourage inferior services and quality.⁹⁴ This view, however, would be addressed by the Working Group's proposal by requiring that quality of service requirements be defined by the FCC, subject to the neutrality principle.

It may be necessary to determine a reserve price for the auction, but financial cost modeling can be used in advance to establish the benchmark of maximum support for a given area. Experience with third generation wireless auctions in Europe, moreover, suggests that participation by new entrants can be a severe problem in the face of incumbency advantages.⁹⁵ A responsible auction design therefore has to guard against the possibility that only one firm (*i.e.*, the incumbent) participates, whenever possible. Regulatory oversight also may be necessary to determine which elements of the network would require support. For instance, transport from the tandem to the central office may be treated differently than the loop from the central office to the home.

D. Conclusion

Market-based mechanisms such as vouchers and auctions are preferable in order to "rationalize" universal service distribution to high cost areas. While the Working Group deliberations exposed the differences between the "household" and "infrastructure" perspectives of providing universal service support, there is no compelling reason why these options are mutually exclusive as a matter of national universal service policy. For policymakers, it is important to distinguish between what mechanism may be appropriate in markets where competition is likely, versus markets that are so remote, and where costs are so high, that they will likely remain monopolized (at least in the short run). The main

⁹² See Rural Task Force, *Alternative Mechanisms for Sizing A Universal Service Fund for Rural Telephone Companies*, White Paper 3 at 17 (Aug. 2000) ("After the expiration of the contract period, support for the area would be re-auctioned. In the second auction, the first round low bidder, who may have made long-term investments in plant to serve a rural area, could only retain its revenues if it submitted a successful bid again. This kind of uncertainty would not provide incentives for efficient, long-term investment strategies that are necessary in low density, high-cost areas.")

⁹³ Peter K. Pitsch, *Reforming Universal Service: Competitive Bidding or Consumer Choice?* Cato Briefing Paper No. 29 (May 7, 1997).

⁹⁴ See, e.g., *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Reply Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies* at 18 (June 3, 2003).

⁹⁵ Paul Klemperer, *How (Not) to Run Auctions: The European 3G Telecom Auctions*, CEPR Discussion Paper No. 3215 (Feb. 2002) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=303763).

problem is the criteria for determining which markets belong in “column A” and which markets belong in “column B” in advance.

The Working Group appreciates that there are potential drawbacks associated with any distribution mechanism. Our preference for vouchers or auctions stems from the view that the market can more efficiently decide how much support is necessary, which in turn enhances production efficiencies and reduces the likelihood of waste or fraud. It might very well be the case, however, that a full-bore transition to a forward-looking cost model would constitute an improvement over the current system from the standpoint of efficiency. As such, the performance-based block grant model adopted in the following section permits sufficient flexibility for the FCC and the states to recommend and adopt a number of alternative options.⁹⁶

V. The Performance-Based Block Grant Model

A. Introduction

The potential breadth of distribution mechanisms that could improve upon the current distribution scheme speaks to the desirability of a cooperative federalism regime. In contrast to the current universal system, which relies more heavily upon a uniform framework managed by the FCC and the Universal Service Administrative Company (USAC), a new model should recognize the value of state experimentation and the fact that a “one size fits all” approach does not accurately account for the diversity of carriers in, and the size and topography of, high cost areas. The rationale for experimentation in this arena is that there is considerable dispute and uncertainty about, for example, the efficiency of rural providers, the wisdom of encouraging multiple ETCs in a geographic area, and whether to peg support directly to households or toward infrastructure. In the face of such a dilemma, a greater reliance on state administration provides considerable appeal. In essence, allowing states to tailor universal service solutions to meet their own needs will result in a process of “interstate competition” that will help to identify a set of best practices.⁹⁷ To be sure, such a system could lead to a “patchwork” of approaches for business planning purposes, but companies manage to follow different state laws in scores of regulatory domains (and already do in a number of ways in the telecommunications industry). While this model also may create additional

⁹⁶ The provision of wholesale network services by a monopoly infrastructure provider might be consistent with retail competition by multiple service providers. Multiple infrastructures are not likely to be sustainable in the long run in many markets. This observation suggests the possibility of hybrid mechanisms that establish a clear “wholesale-retail split” with direct support to providers of network services at the wholesale level, perhaps through an auction mechanism, and voucher support for households at the retail level. For example, infrastructure providers might compete via auction for subsidies to cover fixed costs, with voucher support for households at the retail level to cover variable costs.

⁹⁷ See Philip J. Weiser, *Chevron, Cooperative Federalism, and Telecom Reform*, 52 VAND. L. REV. 1, 31-33 (1999).

administrative costs (at least in the short run), it is anticipated that these administrative costs will eventually be outweighed through savings in universal service distribution.

There are additional, compelling reasons for the adoption of a block grant system. As currently structured, the universal service program provides few incentives for states to reduce expenditures. As described above, states have an incentive to certify CETCs without regard to the resulting increased demand for federal subsidies. Any new universal service system must include stronger incentives for efficiencies. Giving states more control over the program, along with performance-based incentives, should result in lower universal service costs without reducing subscription rates.

Moreover, linking universal service support more directly to state policy would encourage states to internalize the impact of their own regulatory structures, including the regulatory requirements imposed on incumbent carriers in rural areas. For instance, "value of service" pricing in some states results in rates in urban areas that are higher than rural areas, on "the theory that service is more valuable in areas where there are many people to whom one can make local calls."⁹⁸ Thus, rate rebalancing (combined with access charge reform) may be required in an environment where universal service support is more stringently limited. As Eli Noam has pointed out, "rebalancing is not a method of raising revenues for universal service but of shrinking the existing burden . . . Rebalancing is therefore a starting-point rather than a solution to the question of alternative financing methods."⁹⁹ If states were to engage in rate rebalancing while boosting funding and promotion of state Lifeline and Link-Up programs, they could reduce costs while encouraging subscribership. In turn, the amount of local competition and additional incentives for companies to control costs and increase service quality may increase, as retail rates more accurately reflect the cost of providing service.

B. Description of the Proposal

The challenge, then, is to create a model that meets the immediate needs of low-income customers and customers in high cost areas, is supple enough to

⁹⁸ Stuart Buck, *TELRIC vs. Universal Service: A Takings Violation?* 56 FED. COMM. L.J. 1, 5 (2003).

⁹⁹ Eli M. Noam, *Beyond Liberalization III: Reforming Universal Service* (available at <http://www.citi.columbia.edu/elinoam/articles/beyondlib3.htm>). We recognize that there are political obstacles involved in inducing retail rate reform. According to Professor Milton Mueller:

If basic services rates go up, the FCC will look bad and the new law will appear to the public to be a failure. Thus, the commission's temptation to maintain implicit universal service subsidies or to structure the subsidy program in a way that prevents a cost-based rebalancing of telephone rates is probably irresistible.

Milton Mueller, *Universal Service and the Telecommunications Act: Myth Made Law* (1997)(available at <http://www.vii.org/papers/cacm.htm>).

On the other hand, we would note that a growing number of states have granted telecommunications companies additional retail price flexibility in recent months.

incorporate ongoing changes in the regulatory and technological landscape, but one that minimizes inefficiency and waste. As such, the Working Group has designed a “performance-based block grant program” that would initially halt the growth of the universal service program and then reduce the costs of the program over time as technology advances. A fundamental premise of this model is that technology will continue to reduce costs and increase options for consumers in high cost areas, with the aspirational goal that the only support that may be necessary for universal service in the long run will be that which supports connectivity for low-income customers.

The block grant program would work as follows. The FCC would continue to be the federal agency responsible for oversight of the USF and would still continue to collect contributions for the fund.¹⁰⁰ However, instead of directly transferring federal funds to communications providers, the federal government would allocate them to whatever entity – PUC or otherwise – that the state legislatures appoint to serve as an administrator of the federal program.¹⁰¹ In managing the universal service fund, the state administrator would be required to act in accordance with federal guidelines.

In the event that a state legislature failed to designate a particular entity as the administrator of the universal service fund, the FCC would provide the funds to the state PUC. In general, federal grant programs often gloss over such questions, leaving them “ambiguous about the role of the state legislature in controlling access to state and local institutions.”¹⁰² By designating the state PUC as a default option, the statute encourages states to pick a particular administrator while eliminating the possibility of a “power struggle” between a state legislature and other political institutions, such as the governors’ office.

An appropriate transition period to the block grant model, which seeks to ameliorate shocks to existing universal service recipients, is of critical importance. The proposed USF framework therefore includes a three-year

¹⁰⁰ One perspective shared with the Working Group dismissed the ability of federal and state regulators to manage what is, in essence, a social subsidy system. In turn, leaving these regulators in charge of the USF will inevitably conflict with their primary regulatory function, so an independent “Universal Service Telecommunications Board” (USTB) was proposed to undertake the functions of the FCC and the states. This view was opposed on the ground that the FCC does have the institutional expertise – including familiarity with the costs, pricing and the state of the industry - to properly manage the USF. In any event, it should be emphasized that the states, as primary distributors of support, have the option of designating any entity to manage this function.

¹⁰¹ Legislative consent is not necessary as a matter of law, as the block grant proposal is a conditional grant package and would therefore be a valid exercise of Congress’s spending power. See Roderick M. Hills, Jr., *The Political Economy of Cooperative Federalism: Why State Autonomy Makes Sense and “Dual Sovereignty” Doesn’t*, 96 MICH. L. REV. 813, 858-65 (1998). Voluntary agreement, however, is more reasonable and respects a certain degree of state autonomy.

¹⁰² Roderick M. Hills, Jr., *Dissecting the State: The Use of Federal Law to Free State and Local Officials From State Legislatures’ Control*, 97 MICH. L. REV. 1201, 1205 (1999).

transition period to the performance-based block grant system. Universal service support to existing eligible telecommunications carriers will be maintained during the transition period. However, in order to limit to the continued growth of the fund, that support will be frozen at current per-line levels and states will be prohibited from designating additional ETCs, with an exception for carriers of last resort in unserved areas. During these three years, other existing FCC rules and regulations applicable to the provision of high cost and low-income support will remain in place.

The three-year transition will be split into two phases in order to allow regulators sufficient time to conduct proceedings in anticipation of the new distribution system. During the first phase (eighteen months), the FCC will conduct a proceeding that will determine, *inter alia*, model distribution mechanisms, including (but not limited to) voucher programs and auctions; the national performance level (measured by household subscription to electronic communications services) that each state will be required to achieve in order to retain unused block grant funds; carrier of last resort obligations; and other rules relating to administration, monitoring and enforcement.

Upon the publication of the FCC's rules, the states will then have an additional eighteen months in "phase two" to define high cost areas, adopt regulations to support low-income consumers, and select their chosen distribution mechanisms. The Working Group considered, but ultimately rejected, an alternative that would require the FCC to define high cost areas because the states are presumably more familiar with, and thus better able to identify, those geographic areas that are in actual need of support. The states also would use their proceedings to designate these universal service recipients as "eligible communications carriers" (ECCs) for the new program. As support may shift from the current model, pre-existing ETCs will not automatically receive ECC status. This transition period will also put companies on adequate notice that the amount of support they receive may be altered and will have an opportunity to adjust their business planning accordingly.

Regardless of the distribution mechanism chosen, any ECC that receives support (either indirectly through households or directly from the state for infrastructure) would be required to serve as a carrier of last resort. Carrier of last resort obligations constitute a key element of universal service because costs may even be heterogeneous in small geographic areas, and in the absence of a service obligation "higher cost" customers may be ignored.¹⁰³ While the FCC recently adopted mandatory carrier of last resort requirements for the interstate ETC designation process, it was only able to "encourage" states to adopt these requirements under the provisions of the 1996 Act.¹⁰⁴ The model

¹⁰³ See Weller, *supra* note 87, at 6.

¹⁰⁴ *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order at ¶ 20 (Rel. Mar. 17, 2005) ("Based on the record before us, we find that an ETC

statute therefore provides for more certainty and consistency by “federalizing” the ECC designation process. Since an additional purpose of universal service is to ensure that customers have affordable access to “quality” basic services, the FCC is empowered to adopt service quality requirements and other carrier of last resort obligations. These rules would invariably be subject to the neutrality principle.

The Working Group considered several alternatives for the total initial amount of the block grant fund. The possibility of using current per-state high cost and low-income support as the initial benchmark was rejected on the grounds that it would lock in current inefficiencies and unfairly reward states that have designated more CETCs. Instead, an estimated “price cap” of \$3.65 billion was set as the initial benchmark of total high cost *and* low-income support. This figure was determined by selecting 2003 as a base year for high cost support (\$2.85 billion). By 2003, much of the access charge reform that occurred through the FCC’s *CALLS* and *MAG* orders already was reflected in universal service support. Additionally, CETC demands on universal service funding was just beginning to have a moderate impact (around 4 percent total high cost support of went to CETCs in 2003). The high cost estimate of \$2.85 billion also omits local switching support from 2003 (approximately \$435 million),¹⁰⁵ based upon the view that the cost of switching has dramatically decreased,¹⁰⁶ and local switching support may now create an artificial disincentive to consolidate exchanges and companies. The base year selected for low-income support was 2004 (approximately \$800 million), following the FCC’s decision in that year to expand the federal default eligibility criteria to customers with income levels at or below 135 percent of the Federal Poverty Guidelines.¹⁰⁷ Finally, as discussed on pages 21-23 above, the Working Group reached a split consensus on whether support for schools, libraries and rural health care centers (excluding support for internal connections under the E-Rate program) should remain part of the USF, with the option of including these programs in the block grant program. Assuming that the modified E-Rate program (which would support subscriptions to communications services and Internet access) and the rural health care support were included in the block grant model, the total proposed cap would be increased by an estimated \$1.15 billion, based on the average commitments for these programs over the last two years, for a total initial cap of \$4.8 billion.¹⁰⁸

applicant must demonstrate: (1) a commitment and ability to provide services, including service to all customers within its proposed service area . . .”).

¹⁰⁵ The “LSS fund” currently provides local switching cost support to study areas with 50,000 or fewer lines.

¹⁰⁶ See, e.g., Herman Mehling, *Yukon Telephone Blazes VoIP Trail*, *America’s Network* (Apr. 1, 2005)(describing the decision by an RLEC, Yukon Telephone, to purchase more cost-effective advanced switching capabilities “due to the uncertainty of federal funding for rural telcos.”).

¹⁰⁷ *In the Matter of Lifeline and Link-Up*, WC Docket No. 03-109, Report and Order and Further Notice of Proposed Rulemaking (Rel. Apr. 29, 2004).

¹⁰⁸ See Universal Service Administrative Company, *Federal Universal Service Support Mechanisms Fund Size for the Third Quarter 2005* at 21-22 (May 2, 2005)(listing approximately \$1.1 billion in commitments for Telecommunications and Internet Access for Funding Year 2002 and \$1.13 billion for Funding Year 2003).

Automatic adjustments to the fund size would include offsets for productivity and inflation through a formula established by the FCC. Importantly, the FCC also has the option to adjust the size of the cap to account for population growth and “exogenous” cost changes related to intercarrier compensation reform. Notably, current intercarrier compensation reform proposals before the FCC would require a substantial amount of additional universal service funding. By way of example, one of the most comprehensive proposals has been submitted to the FCC by the Intercarrier Compensation Forum (ICF).¹⁰⁹ The ICF proposal would ultimately establish a uniform compensation rate for all types of traffic, replacing all remaining implicit subsidies with explicit mechanisms, including increased subscriber line charges and USF support. The ICF plan “would create roughly \$2.7 billion in explicit universal service support,” and “roughly two-thirds of this support will flow to rural carriers.”¹¹⁰

The decision to use a “price cap” methodology seeks to avoid the inevitable rentseeking and political disputes that might otherwise occur under a more administratively flexible approach. Moreover, beginning with the *AT&T Price Cap Order* in 1989, the FCC has amassed significant experience with the administration of price caps in recent years.¹¹¹ Price caps have been used to incentivize efficiency and innovation in large telecommunications companies, so there is no countervailing reason why the universal service support system should not be made subject to the same kind of beneficial discipline. An immediate reduction in the overall size of the universal service fund will also set the appropriate conditions for additional reform by encouraging service providers to identify production efficiencies and state regulators to experiment with distribution mechanisms.

This funding cap, in combination with other statutory requirements adopted in our model language, would increase political accountability in two dimensions. First, Congress would be required to confront the cost of the universal service program by selecting an appropriate figure. Second, while the FCC is granted authority to expand the list of supported basic services following a recommendation of the Joint Board, additional funding to support those services would not be available without explicit Congressional authorization.

The initial block grant amount distributed to each state would be determined by a formula based upon a national comparable affordability standard, to be established by the FCC. The formula would, for example, reflect

¹⁰⁹ The current members of the ICF include AT&T, General Communications, Inc., Global Crossing, Iowa Telecom, Level 3 Communications, SBC Communications, Sprint, and Valor Communications.

¹¹⁰ *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Comments of the Intercarrier Compensation Forum at 7 (May 23, 2005).

¹¹¹ See, e.g., *In the Matter of Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Report and Order and Second Further Notice of Proposed Rulemaking, 4 FCC Rcd. 2873 (Rel. Apr. 17, 1989).

the percentage of households in a given state whose *actual* cost of basic electronic communications services exceeds three percent of income. A formula that reflects the actual cost of service would avoid penalizing states that have adopted their own universal service programs. The amount that each state receives may be adjusted every three years by the FCC to account for demographic changes, including population and income changes, but the sum total of the block grant program after such an adjustment could not exceed the total national cap.

There is one additional and vital benefit of this block grant system: states would be not only able to experiment with different methods of cutting costs, deploying infrastructure and boosting subscribership, they would have an economic incentive do so. The FCC would set a national performance level for subscription to electronic communications services. States that succeed in meeting the FCC's performance level may retain their unused block grant funds and direct those funds to public safety infrastructure improvements or support for "non-basic" electronic communications services (including support for schools, libraries and rural health care facilities and expanding broadband). By linking funds to this performance level, states will have the financial incentive to target subsidies to low-income consumers and those geographic areas that require the most support, and encourage rural providers to cut costs and boost efficiencies. To be sure, this will not result in a "uniform" distribution system, but current subscription levels vary from locality to locality, which "suggests that it is acceptable (politically and legally) that universal service targets not be uniform across geographic areas."¹¹² The states also retain the ability to adopt their own universal service programs, subject to the limitation that these programs are consistent with the principles and other requirements of the model statute.

In this environment, one of the roles of the Joint Board would be to act as an information intermediary and serve as a clearinghouse of best practices based upon the experiences of the states. The FCC would have other advisory and investigative roles to play. For example, few states have experience in conducting auctions. The FCC, through its guidelines, would provide technical assistance to states by helping state administrators in the design and management of auction processes. Furthermore, in the current regulatory environment, there appears to be little incentive for regulators to scrutinize the use of universal service funds after they are passed through to service providers. In recent comments to the FCC, for instance, Western Wireless claimed that "no comprehensive audit of the regulatory accounts of rural ILECs has been conducted in the past decade, either by the FCC, NECA, USAC, or independent auditors retained by the ILECs themselves."¹¹³ The FCC more recently stated that USAC has conducted "more than 222 audits examining E-Rate beneficiary

¹¹² Riordan, *supra* note 28, at 318.

¹¹³ Western Wireless Reply Comments at 12, CC Docket No. 96-45.

compliance,” but only “eight audits of High Cost program beneficiaries.”¹¹⁴ The model statute therefore requires the FCC to conduct periodic audits of USF recipients, as well as the states, in an amount sufficient to reach conclusions about whether USF funds are being used efficiently. This analysis would be included in a report transmitted by the FCC to Congress on a triennial basis. Under this triennial review process, the Commission would also be required to (among other things) analyze the impact of universal service support on affordability, assess the continuing need for universal service support based upon technological and marketplace developments, and identify best practices among the states.

C. Conclusion

It is the Working Group’s view that the performance-based block grant model will help to identify more efficient and deliberate distribution mechanisms to meet the competitive landscape. The proposal provides the political assurance that customers will not be dropped from the network while creating an opportunity to expose the shortcomings in the current system. Over time, successful state programs will provide more reliable data on the link between subscribership and costs, which can then be used as a “case study” for policymakers to reconsider whether, or to what extent, universal service programs are even necessary at all.

VI. Universal Service Contribution Mechanisms

A. Introduction

Any universal service fund that is self-financed by the communications industry can be decomposed into two components – a set of targeted subsidies, and a tax scheme to raise revenues. It is the Working Group’s position that any such tax scheme should reflect the principles of sound taxation design. Economists have long argued that taxation should be designed to minimize social cost, which is the excess burden caused by the fact that taxes drive a wedge between the price signals that consumers and producers see. Thus, taxes lead to an inefficient allocation of resources. In particular, there tends to be under-consumption of the taxed good or service and diversion of demand into untaxed or lower-taxed commodities that, but for the tax, may be a consumer’s second (and inferior) choice.

To achieve a lower social cost for raising a given amount of tax revenue, the following considerations are helpful. First, a broader base on which the tax is levied implies a lower tax rate and, therefore, the “wedge” is smaller and the distortionary effect of the tax is lower. Second, if the tax is levied on a good

¹¹⁴ *In the Matter of Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 05-124 at ¶ 6 (Rel. June 14, 2005).

whose demand is less sensitive to price, then the tax will cause relatively less distortion. Third, if two goods or services are close substitutes, the taxation of one will severely favor the other, which may be an inferior choice for many consumers. The tax scheme should therefore embody the neutrality principle. Fourth, it is better if taxes are levied on final goods, and not inputs, as distorting input prices flows through and distorts the prices of other goods in the economy. Finally, the system should embody the transparency principle, so that it is easy to administer and less subject to manipulation.

The current universal service system fails to meet these desired criteria and imposes a high social cost. As discussed previously, universal service contributions are drawn from long-distance and wireless revenues, which is a narrow (and shrinking) taxation base. Of the \$234 billion of total telecommunications industry revenues provided to end-users in 2002, only \$76 billion was eligible to be assessed for USF contributions.¹¹⁵ These services also have higher price elasticities than other communications platforms, such as local wireline service. Furthermore, the current tax is not technologically neutral, is not transparent to taxpayers, and raises business costs as an input tax.

In assessing the proper path to reform, and instead of generally empowering the FCC to come up with the most efficient solution within a specified time period, a majority of the Working Group preferred to recommend a specific contribution mechanism in the model statute in order to increase political accountability. Thus, the Working Group discussed three primary alternatives for contribution reform, seeking to find the solution that best comports with the considerations of sound tax design. The first option discussed would assess all “connections” based on capacity. A connections tax, which would likely be a non-linear tax per connection (e.g., the tax on a DS-3 could be 10 times the tax on a DS-1), was generally disfavored by the Working Group out of concerns that such a non-linear tax might not be technologically neutral and might be manipulated to excessively burden businesses.

The second option would be a broad “usage” tax, which would expand the revenue base for USF contributions on a technologically neutral basis. There was a general perception that taxing *usage* is less desirable than taking *access*, due to possible differences in price elasticities between services. Thus, there was a fair consensus that the third option discussed by the Working Group, which would assess a tax on all assigned telephone numbers, is the optimal core mechanism for reform.

B. Description of the Proposal

The Working Group proposes that the FCC be required to adopt, within six months, a “pure” numbers-based tax that should be levied on all North American Numbering Plan telephone numbers in use in a technologically neutral manner.

¹¹⁵ *Universal Service Monitoring Report*, CC Docket No. 98-202, at Tables 1.1 & 1.4 (May 2004).

Thus, landlines, wireless phones, cable telephony and VoIP services that touch the public switched telephone network and use an assigned number would all pay the same amount. In terms of implementation, and in order to avoid the issue of the “regressive” nature of a numbers tax, those low-income users who qualify for subsidies would be exempt from the tax. The issue of pagers is also problematic, as an equivalent per month tax would have a dramatic effect on demand for a service that is priced for a few dollars per month.

As discussed in the section on distribution mechanisms above, the Working Group recommends an initial cap of \$3.65 billion for low-income and high cost support (with a cap of \$4.8 billion if the modified E-Rate and Rural Health Care programs are also adopted). With a reduced rate of \$0.10 per number for paging services,¹¹⁶ the \$3.65 billion cap would be satisfied with a monthly per-number tax of \$0.59 (and this monthly tax would increase to \$0.77 with the inclusion of the modified E-Rate and Rural Health Care programs). These assessments were calculated as follows. The FCC’s most recent *Telephone Numbering Resource Utilization Report* indicates that there are approximately 531.18 million assigned numbers as of June 30, 2004.¹¹⁷ This data set does not include an additional 22.12 million assigned telephone numbers for toll-free services,¹¹⁸ so there is a total of 553.30 million assigned numbers eligible for contribution. Assuming that every household (approximately 29 million) in the United States that is eligible for Lifeline Service uses one telephone number,¹¹⁹ and netting out these low-income households from the contribution base, there is an approximate total of 524.31 million numbers eligible for contribution.¹²⁰

Under this scheme, the tax would be levied in a neutral manner on the inelastic “access” component to telecom service and is independent of usage, so there should be an increase in usage and a reduction in social costs.¹²¹ Moreover, it is important that any reform should not have the result of increasing the tax burden on households. Using a base model provided by the FCC, Sprint recently estimated that residential customers would pay 48 percent of total

¹¹⁶ According to the FCC, there are approximately 9.26 million assigned numbers for paging services.

¹¹⁷ FCC, *Numbering Resource Utilization in the United States as of June 30, 2004* at Table 1 (Mar. 2005). ILECs account for 308.16 million of these numbers, with wireless carriers accounting for an additional 169.99 million.

¹¹⁸ FCC, *Statistics of Communications Common Carriers* at Table 5.14 (2003/2004 Ed.).

¹¹⁹ *In the Matter of Lifeline and Link-Up*, WC Docket No. 03-109, Report and Order and Further Notice of Proposed Rulemaking, FCC 04-87, Appendix K, Tables 1.B and 2.4 (Apr. 29, 2004). The expanded eligibility requirements under the Lifeline/Link-Up order would add 8 million eligible households (so 29 million total), see Table 2.F.

¹²⁰ This significantly overestimates the “take rate” of low-income subsidies, as currently only one in three households eligible for Lifeline service actually receive the subsidy. *Id.* at Appendix K, Table 1.A.

¹²¹ This conclusion is qualified because, to date, there has been no known empirical study regarding the elasticity of telephone numbers.

universal service support under a numbers tax.¹²² While this would reflect an increase of 5 percent over the “share” of support that residential customers pay under the current funding mechanism,¹²³ the average expenditure per household would *decline* with the immediate reductions in total USF size recommended by the Working Group. In turn, there might also be a significant reduction in the contribution paid by large business users who use private branch exchange (PBX), call centers or similar services, because there may be many times the number of lines in usage than the number of numbers used by the business. This is a net plus, as it lowers the tax burden placed on inputs rather than final goods.

The Working Group appreciated that the adoption of a numbers tax might create the incentive for bypass among end-users, and particularly business customers. While the FCC has projected that the total amount of telephone numbers will continue to grow,¹²⁴ some erosion in the use of numbers may be possible with a numbers tax.¹²⁵ The amount of bypass is also a function of the size of the overall tax, so this emphasizes the need to keep the total universal service fund as small and efficient as possible. For example, many businesses currently use direct-inward-dial (DID) that enables callers to directly dial into an extension on a PBX. A significant numbers tax may result in the increased use of “overdial,” whereby a caller would dial a central number for a paging service, and then, after receiving what amounts to a second dial tone from the paging terminal, the caller would “overdial” additional digits to indicate the particular paging unit they would want to reach.

To deter such “inefficient” workarounds, the Working Group proposal includes the possibility of an alternative funding mechanism where the FCC has evidence of material bypass by business customers. This residual rulemaking authority would permit the FCC to levy an appropriate tax on special access services and private line connections to supplement universal service revenues. The model statute also requires the FCC to assess the effectiveness of the contribution mechanism as part of its triennial report to Congress.

¹²² *In the Matter of Federal-State Joint Board on Universal Service*, Reply Comments of Sprint Corporation at Attachment II (Apr. 18, 2003).

¹²³ CBO Report, *supra* note 26, at x (stating that residential customers currently contribute 43 percent of total USF funds).

¹²⁴ *Wireline Competition Bureau Staff Study of Alternative Contribution Methodologies* at 9 (Feb. 26, 2003).

¹²⁵ However, this may also constitute an additional side-benefit of a numbers tax, in that it would encourage the efficient use of telephone numbers, delaying the exhaustion of the North American Numbering Plan for certain area codes. There is an economic benefit for number conservation in area codes where the possibility of number exhaust exists, as there are significant costs associated with opening new area codes (including, but not limited to, the costs of reprogramming switches and billing costs).

C. Conclusion

The principle merit of alternative financing mechanisms, such as a numbers tax or a connections tax, is that they may be less distortionary than the current system.¹²⁶ As the foregoing discussion illustrates, technological evolution gives end-users the ability to adapt and bypass heavily distortionary tax schemes. While the numbers tax meets the various criteria of sound taxation design, the possibility that even this broadly-based funding option could distort behavior is another persuasive argument for ensuring that the subsidies it funds are as small as possible.

VII. Summary

Through extensive deliberations that occurred over a span of six months, the DACA Universal Service Working Group sought to present a comprehensive model for universal service reform. The recommendations contained within this preliminary report derived from a set of universal service principles – affordability, efficiency, neutrality, and transparency – that both expose weaknesses in the current system and guide proposals for reform.

In defining the goal of universal service, the Working Group has reached consensus on proposed policies that target subsidies for the provision of “basic electronic communications services” to low-income consumers and high cost areas, with a clear eye on controlling the economic costs of universal service taxes through a cap on the size of the total fund. Notably, this model calls for any immediate widespread support for broadband (with the possible limited exception of support for schools, libraries and rural health care facilities) to be provided, if at all, through programs using general tax revenues. At the same time, this model provides sufficient flexibility for federal and state regulators to adapt universal service policies to the changing technological marketplace.

An additional core aspect of this proposal is a performance-based block grant distribution system. By relying more heavily upon state management with guidance and oversight by the FCC, this approach will more clearly define the respective roles of state and federal authorities, and encourage productive efficiencies through state experimentation. In order to induce reform and respond to the public choice pressures which characterize the current regulatory environment, the states are given an economic incentive to experiment with distribution mechanisms, including alternative market-based options such as voucher programs and auctions.

To fund the universal service system through a less distortionary and more soundly designed taxation scheme, the proposal requires the FCC to develop a contribution mechanism based on a per-telephone number tax. Under the cap proposed by the working group, the initial amount of this tax would range

¹²⁶ See Ellig, *supra* note 12, at 22.

between \$0.59 and \$0.77 per month. This taxation scheme has the benefit of being completely transparent to consumers. The Working Group's proposal would also increase transparency by seeking to eliminate fraud and waste through extensive audits by the FCC, and by requiring the Commission to present a thorough review and analysis of the universal service program to Congress every three years.

The policy goal of affordable basic electronic communication services for all households is important for the United States, and is achievable in ways that are economically efficient, competitively neutral, and administratively transparent. The DACA Universal Service Working Group proposes a new model for universal service policy with these goals clearly in mind.

**MODEL
PROPOSED
LEGISLATIVE
LANGUAGE**

Title III - UNIVERSAL SERVICE

Section 1: Definitions

- (a) “Commission” means the Federal Communications Commission.
- (b) “Household” includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. For the purposes of this title, the term “household” shall include housing units in tribal areas.
- (c) “Joint Board” is the Federal-State Joint Board on Universal Service, instituted by the Commission under the Telecommunications Act of 1996.

Section 2: Universal service principles. Policies for the preservation and advancement of universal service shall be based upon the following principles:

- (a) Affordability. Quality basic electronic communications services shall be affordable to all low-income households and households in high cost areas of the nation.¹²⁷
- (b) Efficiency. Universal service support and contribution mechanisms for the provision of affordable basic electronic communications services shall burden the economy no more than is necessary.
- (c) Neutrality. Neither the distribution of universal service support for basic electronic communications services nor the collection of universal service contributions shall discriminate in favor of or against any company or technology.
- (d) Transparency. Rules governing universal service mechanisms shall be clear and enforceable. The goals and outcomes of universal service support shall be clearly defined and identified.

¹²⁷ An “electronic communications service,” as defined by the DACA Regulatory Framework Working Group, means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks. An “electronic communications network” means transmission systems and, where applicable, switching or routing equipment and other facilities which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, over satellite, cable, or other facilities, whether fixed or mobile, to the extent that they are used for the purpose of transmitting signals, irrespective of the type of information conveyed.

Section 3: Initial definition and modification of universal service

(a) Definition of supported services for low-income consumers and high-cost areas. The definition of supported services, established by the Commission under 47 C.F.R. § 54.101(a), and effective as amended on February 12, 1998, shall operate as the initial definition of basic electronic communications services under this title.

(b) Modifications. The Joint Board may, from time to time, recommend to the Commission modifications to the definition of the basic electronic communications services that are supported by Federal universal service support mechanisms. The Commission shall complete any proceeding to implement subsequent recommendations from the Joint Board within one year after receiving such recommendations. The Joint Board in recommending, and the Commission in implementing, any modifications of the definition of the services that are supported by Federal universal service support mechanisms shall justify those modifications with an explicit analysis that considers the extent to which such electronic communications services have, through the operation of market choices by customers, been subscribed to by a substantial majority of households that do not receive any universal service support. The Commission shall not increase the amount of total universal service support following any modification to the definition of basic electronic communications service without express Congressional authorization.

Section 4: Contribution mechanism.

(a) Within six months of the enactment of the Digital Age Communications Act, the Commission shall complete a proceeding to promulgate rules to reform the universal service contribution mechanism and adopt a new mechanism based upon the assignment of numbers in the North American Numbering Plan.

(b) The rules adopted by the Commission shall include an exemption from universal service contributions for low-income households.

(c) With the exception of a discounted contribution rate for paging services, all assigned telephone numbers shall be assessed an equivalent amount on a technologically neutral basis.

(d) The Commission shall retain residual rulemaking authority to adopt an alternative contribution mechanism to supplement the universal service fund if there is evidence of material, inefficient bypass of the numbers-based contribution mechanism by business customers. The alternative contribution mechanism may assess business connections to special access lines and private line connections on the basis of capacity.

Section 5: Universal service reform.

(a) Three years following the enactment of the Digital Age Communications Act, and on an annual basis thereafter, performance-based block grants shall be provided by the Commission to certified States to distribute and support the provision of those basic electronic communications services which have been found by the Commission to be eligible for universal service support. Any State that is not certified shall be ineligible to receive Federal universal service support. Certified States shall direct such support toward the provision of a single connection to basic electronic communications services for all low-income households and households in high cost areas, as those areas are defined by each certified State.

(b) For the purposes of this title, support for households or basic electronic communications services may include support for the underlying infrastructure in high cost areas used to provide basic electronic communications services, at the discretion of each certified State. In modifying the definition of basic electronic communications services eligible for support under section 3(b) of this title, and where the Commission has evidence that an affordable, prevailing electronic communications service relies on underlying infrastructure that otherwise requires universal service support, the Commission may adopt guidelines under paragraph (d) of this section to ensure that universal service support flows through to support the underlying infrastructure used to provide such a service.

(c) In establishing guidelines and rules for performance-based block grants, the Commission shall provide States with sufficient flexibility to experiment with alternative market-based distribution mechanisms, including voucher programs and auctions.

(d) Commission action and publication of guidelines. The Commission shall initiate a single proceeding and shall complete such proceeding within 18 months of the date of enactment of the Digital Age Communications Act. The rules and guidelines established by such proceeding shall be effective three years following the date of enactment of the Digital Age Communications Act, and may be modified by the Commission any time thereafter subject to the provisions of this title. The initial guidelines adopted by the Commission shall include-

(1) model distribution mechanisms and regulations for the support of low-income households and households in high cost areas, including market-based mechanisms incorporating an auction model and a voucher program;

(2) the national performance level, measured by household subscription to electronic communications services, that is necessary for each State to retain unused block grant funds under paragraph (g) of this section;

(3) the initial amount of block grant funds that are available for each State, to be based upon a formula adopted by the Commission that uses appropriate data from the Census Bureau and reflects a comparative analysis of affordability across States;

(4) rules and regulations, including quality of service requirements, pertaining to the designation of a carrier of last resort and the relinquishment of service by an eligible communications carrier in high cost areas; and

(5) any other rules or regulations necessary for administration, monitoring, recordkeeping, reporting and enforcement, including provisions designed to protect against fraud, and any additional guidelines to assist the States in implementing and adopting distribution mechanisms.

(e) Certification and transition period.

(1) A State seeking to receive a performance-based block grant must certify in writing to the Commission that it meets the requirements of this subsection. Any State that does not certify with the Commission shall not receive Federal universal service support.

(2) Universal service support for any carrier designated as an “eligible telecommunications carrier” under the Telecommunications Act of 1996, section 214(e), shall be capped at current per-line support levels for three years following the enactment of the Digital Age Communications Act. With the exception of Commission rules regarding the designation of eligible telecommunications carriers for unserved areas under 47 C.F.R. § 54.203(a), effective June 17, 1997, States shall be prohibited from designating additional eligible telecommunications carriers during the three-year transition period. All other Commission rules and regulations applicable to the provision of universal service support for high cost areas and low-income consumers, including Lifeline and Link-Up support, shall remain in effect for three years following the enactment of the Digital Age Communications Act.

(3) Following the Commission’s publication of guidelines in paragraph (d) of this section, certified States shall have 18 months to conduct proceedings to identify high cost areas, promulgate rules and regulations for low-income support, establish distribution mechanisms, and designate eligible communications carriers.

(4) Three years after the enactment of the Digital Age Communications Act, the Public Utility Commission of a certified State, or any other administrative entity designated by the legislature of a certified State, shall distribute universal service support to qualified households or communications carriers in accordance with the Commission's guidelines and the requirements of this title.

(f) Initial block grant amount and adjustment. The initial total amount of funding for performance-based block grants shall be capped at \$3.65 billion dollars.¹²⁸ The total amount of funding for performance-based block grants shall be adjusted annually by an inflation index and by a fixed factor for productivity improvements as determined by the Commission. The total amount of funding for performance-based block grants may also be adjusted by the Commission for changes in population size and exogenous cost changes directly related to intercarrier compensation reform.

(1) With the exception of explicit Congressional authorization under section 3(b) of this title, the Commission shall not otherwise adjust the total amount of funding for performance-based block grants.

(2) On a triennial basis, the Commission may adjust the amount that each State is eligible to receive based upon the comparable affordability formula adopted by the Commission under section 5(d)(3) of this title;

(g) Treatment of unused funds. Any certified State that does not distribute all of its allotted block grant grants for a given year must inform the Commission of the unused amount in writing. A State that meets the Commission's performance level, once the appropriate data is made available by the Census Bureau, may retain unused block grant funds and direct those funds toward services left unsupported under section 3 of this title or public safety infrastructure improvements, including the upgrading of E-911 systems. The Commission shall offset any unused funds against a State's block grant allotment in the following calendar year and adjust the contribution mechanism appropriately when a State does not meet the Commission's performance level.

¹²⁸ As discussed on pages 18-20 above, the Working Group reached a split consensus on whether support for schools, libraries and rural health care centers (excluding support for "internal connections" under the E-Rate program) should remain part of the USF. Assuming that the modified E-Rate program and rural health care program were included in this proposal, the total proposed cap would amount to \$4.8 billion, which includes an estimated \$1.15 billion in demand for these remaining programs based on recent annual commitments. See Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size for the Third Quarter 2005 at 21-22 (May 2, 2005)(listing approximately \$1.1 billion in commitments for Telecommunications and Internet Access for Funding Year 2002 and \$1.13 billion for Funding Year 2003).

(h) Eligible communications carriers. Any communications carrier that is eligible to receive block grant funds in high cost areas or in the service of low-income consumers, either directly from a State or indirectly through support provided to households, must be designated as an eligible communications carrier by a certified State in accordance with the guidelines promulgated by the Commission under section 5(d)(4) of this title.

(i) Performance monitoring and enforcement. The Commission shall monitor the performance level of each certified State to determine each State's eligibility to retain unused block grant funds. The Commission shall have residual rulemaking authority to withhold block grant funds from any certified State that fails to comply with the Commission's rules and guidelines.

(j) Audits required. The Commission shall investigate the distribution of block grant funds of any certified State or any entity providing supported services by performing periodic audits on its own initiative. The number of audits conducted by the Commission must be sufficient for the Commission to provide a detailed analysis regarding the efficiency of universal service distribution mechanisms in the triennial report transmitted to Congress under section 8 of this title.

(k) Consultations with the Joint Board. The Joint Board may, from time to time, recommend to the Commission modifications in the rules and guidelines based upon the experience of the States and consistent with the principles set forth in section 2 of this title. The Commission shall complete any proceeding to implement recommendations from the Joint Board within one year after receiving such recommendations.

Section 6: Waiver authority. A certified State may file a petition to adopt a distribution mechanism that is not included in the Commission's guidelines. The Commission may grant any petition that is consistent with the universal service principles set forth in section 2 of this title. The Commission shall act upon any petition filed under this paragraph within 90 days after receiving such petition.

Section 7: State universal service programs. A certified State that receives performance-based block grant funds may adopt mechanisms and regulations consistent with the universal service principles set forth in section 2 and any other applicable provisions of this title to ensure that quality basic electronic communications services are available to all low-income households and households in high cost areas at affordable rates. The Commission shall have the authority to review the universal service program of any certified State in a complaint proceeding.

Section 8: Reports to Congress. On a triennial basis, the Commission shall transmit a report to Congress that shall include-

- (a) an analysis of the costs and benefits of the universal service program, including an evaluation of whether and to what extent universal service programs have caused improvements in affordability;
- (b) a summary of findings from the audits the Commission performs on a periodic basis;
- (c) a summary of best practices employed by the States, in consultation with the Joint Board;
- (d) an evaluation of, and recommendations regarding, the contribution mechanism; and
- (e) an analysis of the continuing need for universal service support based upon the experience of the States and technological and marketplace developments, including recommendations regarding the size of the total funding cap.

Appendix

A Market-Based Voucher Program From the Columbia Institute for Tele-Information's "Remedies for Telecom Recovery" Project

The CITI proposal,¹²⁹ which would require little involvement by regulators, would provide vouchers to individuals in high-cost areas to buy telecom services at market rates, and would automatically be issued to low-income customers through the Department of Agriculture's Food Stamps program. Low-income households in high cost areas would receive both vouchers.

The size of the "high cost" voucher could be varied on a zip code basis to equal the difference between the largest service provider's basic retail rate in that market and an affordability level.¹³⁰ This requires two inputs: (1) the *unregulated* basic service price on a zip code basis (which can be compelled from the service provider on an automated basis as a condition for being able to "cash in" vouchers it receives); and (2) a per-zip code "affordability rate" which could be adjusted for cost of living and other factors at the zip code level. The difference between these two numbers is the per-household subsidy in the zip code.

Determining which is the largest service provider in the zip code would be a simple comparison of the data reported by service providers wishing to cash-in vouchers: they report to the administrator's computer the number of telephone numbers assigned or billed in the zip code and the price it charges (or the average price charged) to provide basic service in the zip code. The administrator's computer then announces the prices charged by the carrier reporting the highest number of customers in the zip code without revealing the identity of the carrier or the number of its customers.

To minimize the problem of subsidizing multiple residences for the wealthy, the number of "high cost" vouchers could be limited by: 1) requiring recipients to apply for them; 2) setting a household income threshold; 3) or tapering the voucher so 100% is payable to households at or below \$X income with it tapering to 0% at some multiple of \$X.

¹²⁹ See http://www.citi.columbia.edu/research/recovery2/CITI_RegulatoryUpdate04.pdf at 29-30.

¹³⁰ The size of the "low-income" voucher could be a fixed amount nationally or by state or varied market-by-market in the same manner as the "high cost" voucher.

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* The Advisory Committee was established to provide a broad and diverse source of experience and expertise to the project. The Committee's members do not necessarily endorse the proposals contained in this paper or in any papers issued subsequently by the working groups, and the positions of the Working Groups should not be attributed to them by virtue of their Advisory Committee membership.

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