

the Act's principle that support mechanisms should be "specific, predictable, and sufficient,"<sup>109</sup> we ask commenters to address potential costs associated with such support. We request a recommendation from the Federal-State Joint Board convened in this proceeding regarding all of the matters discussed in this part of the Notice.

51. Free Access to Telephone Service Information. In an Interim Opinion regarding universal service,<sup>110</sup> the California Public Utilities Commission tentatively concluded that free telephone access by subscribers to the telephone company central office, for purposes such as reporting the need for repairs and inquiring about bills or eligibility for special programs, is an essential telephone service.<sup>111</sup> Such free telephone access to the telephone company central office would be of primary significance for measured rate subscribers, who are charged for each local call they make on either a per call or per minute basis, because subscribers with flat rate local service generally may make routine service inquiries without incurring extra charges.

52. Many measured rate subscribers choose that service as a less expensive alternative to the flat rate, and thus would be expected to be especially sensitive to charges for service inquiries. Similarly, it appears likely that potential Lifeline and Link Up customers could benefit significantly from free access to information regarding those subsidy programs.<sup>112</sup> Indeed, such access may be needed to if we are to fulfill our statutory mandate to ensure that universal service is available at affordable rates.<sup>113</sup>

53. We seek comment on whether free access to the telephone service provider for low-income customers should be included within the group of services receiving universal service support, in order to allow those customers to receive information about telephone service activation, termination, repair, and information regarding subsidy programs.<sup>114</sup> Because access by subscribers to certain basic information concerning their telephone service may be a prerequisite to maintaining their service, we seek comment on whether, like access

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<sup>109</sup> 1996 Act sec. 101(a), § 254(b)(5).

<sup>110</sup> Rulemaking on the Commission's Own Motion into Universal Service and to Comply with the Mandates of Assembly Bill 3643, R.95-01-020; and Investigation on the Commission's Own Motion into Universal Service and to Comply with the Mandates of Assembly Bill 3643, I.95-01-020, Interim Opinion (Cal. Pub. Utils. Comm'n, filed Jan. 24, 1995) (CPUC Interim Opinion).

<sup>111</sup> Id. at 18.

<sup>112</sup> We describe those programs in part III.C.2., infra.

<sup>113</sup> 1996 Act sec. 101(a), § 254(i).

<sup>114</sup> Id. § 254(c)(1)(B), (C).

to the loop itself, access to that information is essential to public health and safety and is otherwise consistent with the public interest, convenience, and necessity.<sup>115</sup> Commenters should also address the applicability of the criteria set forth in both Sections 254(c)(1)(B) and (C) to this service. We invite interested parties to provide information regarding the current availability of free access to information regarding telephone service activation and termination, repairs, and telephone subsidy programs.

54. Toll Limitation Services. In discussing toll limitation services, we consider both toll blocking and toll control services. Some LECs offer a service that limits only long-distance calls for which the subscribers would be charged (a form of toll blocking) or limits the toll charges a subscriber can incur during a billing period (a toll call control service). To the extent that toll blocking or limiting services allow low-income customers to avoid involuntary termination of their access to telecommunications services, we seek comment on whether such services are "essential to education, public health, or public safety" and "consistent with the public interest, convenience, and necessity."<sup>116</sup> Moreover, many LECs apparently offer toll limiting services to their subscribers at tariffed rates,<sup>117</sup> indicating that toll limiting service is "being deployed in public telecommunications networks by telecommunications carriers."<sup>118</sup> We seek comment regarding the remaining criterion for including services in the definition of "universal service," the issue of whether toll limiting has, "through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers."<sup>119</sup> We seek comment on whether, where such services are available, they should be offered to low-income subscribers without charge or at a discount and what criteria we should use to determine the support for which a carrier offering such services would be eligible.<sup>120</sup>

55. We recognize that various methods may exist to advance Section 254(b)(3)'s statutory principle that the Commission ensure that "low-income consumers . . . have access

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<sup>115</sup> See *id.* § 254(c)(1)(A), (D).

<sup>116</sup> *Id.*

<sup>117</sup> For example, the Bell Atlantic Telephone Companies offer voluntary toll restriction services in Maryland, the District of Columbia and Pennsylvania; Pacific Bell offers voluntary toll restriction service in California.

<sup>118</sup> 1996 Act sec. 101(a), § 254(c)(1)(C).

<sup>119</sup> *Id.* § 254(c)(1)(B).

<sup>120</sup> We recognize that there is potential tension between affording consumers the ability to receive toll limitation services and the principle set forth in the Act that consumers should have access to "telecommunications and information services, including interexchange services." 1996 Act sec. 101(a), § 254(b)(3).

to . . . interexchange services."<sup>121</sup> We also note that, in the context of the Commission's regulation of the interstate interexchange marketplace, one interexchange carrier has voluntarily committed to institute an optional calling plan for low-income consumers in order to mitigate the impact of recent increases in basic schedule interstate long-distance rates in the marketplace.<sup>122</sup> For example, under the calling plan, low-income residential customers can place one hour of interstate direct dial service, during a one-month period, at a rate frozen at 15 percent below current basic schedule rates.<sup>123</sup> We solicit comment on whether and how we should encourage domestic interstate interexchange carriers to provide optional calling plans for low-income consumers to promote the statutory principles enumerated in Section 254(b)(3). We also seek comment on the potential impact of such plans upon subscribership to telecommunications services.

56. Reduced Service Deposit. Recent studies indicate that disconnection for non-payment of toll charges, and the high deposits carriers charge to cover the cost of noncollectible charges, may be more significant barriers to universal service than the cost of local service itself.<sup>124</sup> In our Subscribership Notice, we noted that LECs generally require deposits before connecting subscribers, and that, for many low-income subscribers, these deposits present a formidable obstacle to initiating service.<sup>125</sup> The availability of affordable toll limiting service, along with the lower deposits carriers would impose on customers who have limited the toll charges they can incur, appears likely to determine whether many low-income consumers have "affordable" access to any public telecommunications services.<sup>126</sup> Moreover, some states which require affordable voluntary toll limiting service have subscribership rates that are above the national average, suggesting that the means to control toll usage is an important component of universal service, particularly for low-income households. We ask interested parties to present a reasoned analysis of whether, based on consideration of all four criteria in Section 254(c)(1), we should require discounted toll limiting service and reduced deposits for low-income consumers, and we request that the Federal-State Joint Board present recommendations on this proposal.

57. Services Other Than Conventional Residential Services. In the past, the Commission's universal service policies focused on the cost of traditional residential service.

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<sup>121</sup> Id.

<sup>122</sup> Motion of AT&T Corp. to be Reclassified as a Non-dominant Carrier, FCC 95-427 (rel. Oct. 23, 1995).

<sup>123</sup> Id. at para. 84.

<sup>124</sup> Subscribership Notice at 13005-06.

<sup>125</sup> Id. at 13003-05.

<sup>126</sup> 1996 Act sec. 101(a), § 254(i).

Nevertheless, we recognize that some individuals with low incomes do not have access to residential service.<sup>127</sup> For some individuals who move frequently or have no residence, access to conventional residential telecommunications service may not be practical. We therefore seek comment on specific services which may enable such low-income customers to gain access to the telecommunications network. We seek comment from parties to identify any historically underserved segments of the population and potential services and features<sup>128</sup> that the Joint Board may consider in addressing the provision of telecommunications services to these highly mobile groups. To determine whether these services should be included in our list of supported services, we seek comment on: whether these services are essential to the public health and public safety; whether a substantial majority of residential customers have subscribed to the services; the extent to which telecommunications carriers deploy, or plan to deploy, them in public networks; and, generally, how offering these service as part of universal service is consistent with the public interest, convenience, and necessity.<sup>129</sup> We also seek comment on how best to measure the extent to which low-income populations that are unable to maintain traditional residential service have access to facilities for making and receiving calls. We invite parties to address the potential for provision of these services by wireless carriers.

58. Other Services For Low-Income Subscribers. We seek comment on whether there are other services that, with respect to low-income consumers, should be included in universal service support mechanisms. We note that low-income subscribers have significantly lower telephone subscribership rates than other subscribers,<sup>130</sup> and seek comment on the reasons underlying this disparity. Any commenter proposing inclusion of an additional service within the definition of services to be supported by federal universal service support mechanisms should discuss the extent to which the proposed service meets each of the criteria enumerated in Section 254(c)(1), and how inclusion of the proposed

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<sup>127</sup> Seasonal workers and homeless individuals, for example, are unlikely to subscribe to residential telephone service.

<sup>128</sup> For example, these may include services like community phone banks, availability of public interest payphones, community access centers, special discounted service plans for short-term subscribers, or low-cost voice mailboxes, which may provide a viable alternative for providing telecommunications service to the highly mobile populations. We note that we will not address public interest payphones in this proceeding because they will be addressed in a separate proceeding, as required under Section 276(b)(2) of the 1996 Act. See 1996 Act sec. 151(a), § 276(b)(2).

<sup>129</sup> 1996 Act sec. 101(a), §§ 254(c)(1)(A)-(D).

<sup>130</sup> For example, according to Census Bureau statistics, 98 percent of households with annual income above \$30,000 -- the median income -- have a telephone in the home, while only 84 percent of households with annual income under \$12,000 -- the poverty level for a family of three -- have a telephone in the home.

service would promote access by low-income consumers to telecommunications and information services.

## 2. How to Implement and Who Is Eligible for Support

59. New Support Mechanisms. We generally seek comment on how to determine the subsidy that would be necessary to make the services identified as the "core services" eligible for universal service support available to low-income consumers. We pose the same question with respect to any additional services specifically targeted to low-income users discussed above. As a threshold matter, we seek comment and a Joint Board recommendation on how to define eligible low-income customers. We seek comment on whether we should require a discount on all supported services and the amount of that discount. Parties endorsing specific services for low-income users, such as free toll limitation services, should propose specific mechanisms to define and distribute support for those offerings. For example, parties asserting that the support should be cost-based should describe how those costs should be determined. We intend to implement Section 254(k) consistent with the expressed Congressional intent "to provide for a pro-competitive, de-regulatory national policy framework."<sup>131</sup> We therefore seek comment on support methodologies involving the least regulatory methods.

60. We seek specific comment on how our proposed support mechanisms should apply to the services discussed in this part of our Notice. We are particularly interested in comment on how support should be calculated and paid if the provider of the service is not the local telephone company. We ask the Joint Board to address these issues in its recommended decision.

61. Existing Support Mechanisms. Currently we have two support mechanisms targeted to low-income consumers: the Lifeline Assistance Plan and Link Up America. States may choose to participate in either of two Lifeline Assistance plans. Plan 1 provides for a reduction in a subscriber's monthly telephone bill equal to the \$3.50 federal subscriber line charge (SLC) for residential subscribers.<sup>132</sup> Half of the reduction comes from a 50 percent waiver of the charge; the other half comes from the participating state, which matches the federal contribution by an equal reduction in the local rate. Under this plan, subscribers who satisfy a state-determined means test may receive assistance for a single telephone line in their principal residence. Of the 38 states and territories participating in Lifeline, only California still offers a Lifeline program under Plan 1.<sup>133</sup>

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<sup>131</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 1 (1996).

<sup>132</sup> 1985 Lifeline Order

<sup>133</sup> Indus. Analysis Div., FCC, Monitoring Report May 1995 CC Docket No. 87-339, at tbl. 2.1 (1995) (Monitoring Report).

62. Under Plan 2, which expands Plan 1 to provide for waiver of the *entire* residential SLC (up to the amount matched by the state), a subscriber's bill may be reduced by *twice* the SLC (or more, if the state more than matches the value of the federal waiver).<sup>134</sup> The state contribution may come from any intrastate source, including state assistance for basic local telephone service, connection charges, or customer deposit requirements. Companies in 37 states or territories reported subscribers receiving Plan 2 Lifeline assistance as of April 1995.<sup>135</sup> In 1994, about 4.4 million households received \$123 million in federal Lifeline assistance through full or partial waiver of the SLC.<sup>136</sup> Under both plans, the interstate portion of Lifeline Assistance is billed to interexchange carriers by the National Exchange Carrier Association, Inc. (NECA).

63. The 1996 Act states that "[n]othing in this section shall affect the collection, distribution, or administration of the Lifeline Assistance Program provided for by the Commission under regulations set forth in section 69.117 of title 47, Code of Federal Regulations, and other related sections of such title."<sup>137</sup> Section 69.117 addresses the conditions and mechanisms for waiver of subscriber line charges.<sup>138</sup>

64. The Link Up program helps low-income subscribers begin telephone service by paying half of the first \$60 of connection charges.<sup>139</sup> Where a LEC has a deferred payment plan, Link Up will also pay the interest on any balance up to \$200, for up to one year.<sup>140</sup> To be eligible, subscribers must meet a state-established means test, and may not, unless over 60 years old, be a dependent for federal income tax purposes.<sup>141</sup> Link Up is available in all but

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<sup>134</sup> MTS and WATS Market Structure; Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Decision and Order, 51 Fed. Reg. 1371, paras. 4-6 (1986).

<sup>135</sup> Monitoring Report, tbl. 2.3.

<sup>136</sup> Id.

<sup>137</sup> 1996 Act sec. 101(a), § 254(j).

<sup>138</sup> See 47 C.F.R. § 69.117.

<sup>139</sup> MTS and WATS Market Structure; Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Report and Order, 2 FCC Rcd 2953, 2955, (1987) (1987 Report and Order); MTS and WATS Market Structure Link-Up America, and Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, Decision and Order, 4 FCC Rcd 3634 (1989).

<sup>140</sup> 1987 Report and Order at 2955.

<sup>141</sup> Id. at 2956.

two states (California and Delaware) and in the District of Columbia.<sup>142</sup> The 1996 Act does not directly address our rules relating to the Link Up program. Nonetheless, like the universal service fund, the Link Up support is a function of jurisdictional separations.<sup>143</sup> The Link Up program's support comes, in part, through shifting LEC costs that would otherwise be recovered through rates for intrastate services to the interstate jurisdiction. Consistent with the Act's requirement that support mechanisms be explicit, propose to amend our rules to remove the Link Up provisions from our jurisdictional separations rules. We further propose that the support mechanism for Link Up be the same as that developed to support other services that receive Federal universal service support.

65. We also seek comment on whether changes to the level of support or other changes to our Lifeline and Link Up programs should be made as part of an overall mechanism to ensure that quality services are available at just, reasonable, and affordable rates for low-income subscribers. Interested parties may, however, propose changes to the level of support. Parties suggesting changes to the level of support should provide evidence of the need for such changes and should address how the proposed changes further the principle of universal service as stated in the 1996 Act, and should identify the effect of their suggested change on the level of subsidy required to fund these programs.

#### **D. Ensuring that Supported Services for Rural, Insular, and High-Cost Areas and Low-Income Consumers Evolve**

66. The 1996 Act states that "[u]niversal service is an evolving level of telecommunications services" and requires that the Commission periodically establish the definition, "taking into account advances in telecommunications and information technologies and services."<sup>144</sup> Thus, our list of services receiving universal service support should continue to evolve, as changes in technology and subscriber needs and preferences affect both the availability and subscribership patterns of various telecommunications services. That evolution should, however, be achieved in the context of regulatory objectives that include promoting competition and reducing regulation in a manner that is technology-neutral.<sup>145</sup> We, therefore, seek comment on how and with what frequency we should evaluate our initial list of services adopted in this proceeding in accordance with the Congressional recognition that universal service is an evolving level of telecommunications services.

67. Parties in a California Public Utilities Commission proceeding have suggested that any universal service definition should be revisited at fixed intervals, such as every three

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<sup>142</sup> Monitoring Report, tbl. 2.2.

<sup>143</sup> See 47 C.F.R. §§ 6.711-741.

<sup>144</sup> 1996 Act sec. 101(b), § 254(c)(1).

<sup>145</sup> Id.

or five years.<sup>146</sup> Whether we decide to revisit the topic even sooner depends on the information we collect in the proceeding on advanced services mandated in Section 706 of the Act.<sup>147</sup> Moreover, although periodic review could help to ensure that the definition does not remain static, it could also entail the expenditure of resources on unnecessary proceedings. To apply the definitional criteria that Congress has set forth in Section 254(c)(1), we shall need to gather relevant facts, including the extent to which particular services "are being deployed in public telecommunications networks" and "have been subscribed to . . . by a substantial majority of residential customers."<sup>148</sup> At the same time, we fully recognize that it could be unduly burdensome to impose extensive information collection requirements relating to those criteria. Since the list of services that should receive universal service support is partially defined by consideration of what services are widely subscribed to by residential customers,<sup>149</sup> it may be that we can rely on the marketplace to register its preferences without soliciting those preferences indirectly through burdensome data collection activities. We propose, instead, to rely on information sources that already exist, and to initiate additional information collection efforts only if that information proves inadequate and only when we contemplate changes in the list of services that should receive universal service support. Should it appear advisable to collect additional information, we would first conduct a cost/benefit analysis to ensure that the burden of collection would not outweigh the value of the information we would request. We seek comment on this proposal and, in addition, we ask that interested parties identify specific sources of information relevant to this list of services in accordance with the criteria set forth in Section 254(c)(1), including information sources available at State commissions and procedures for obtaining such information.

68. The 1996 Act also states that "[q]uality services should be available at just, reasonable, and affordable rates."<sup>150</sup> As to the technical parameters of specific telecommunications services we do not intend, in implementing Section 254, to prescribe technical standards for telecommunications carriers or other service providers. This Commission, historically, has let affected entities (IXCs, LECs, equipment manufacturers,

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<sup>146</sup> CPUC Interim Opinion at 20.

<sup>147</sup> 1996 Act sec. 706, § 706(b). Section 706 requires the Commission to "initiate a notice of inquiry concerning the availability of advanced telecommunications to all Americans (including, in particular, elementary and secondary schools and classrooms) . . . ."

<sup>148</sup> Id. § 254(c)(1)(B)-(C).

<sup>149</sup> See id. § 254(c)(1)(B).

<sup>150</sup> Id. § 254(b)(1) (emphasis added).

and customers) develop technical standards and performance standards,<sup>151</sup> and implement those standards without our direct intervention, except as necessary. At present, there are several industry bodies that address standards for various aspects of communications networks.<sup>152</sup> Our preference, in implementing section 254, is to encourage existing standard-setting bodies to discuss and establish relevant technical standards.

69. The 1996 Act requires the Commission to ensure that "[c]onsumers in all regions of the Nation, . . . have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas."<sup>153</sup> As stated above, the 1996 Act also requires that the Commission ensure that "[q]uality services should be available."<sup>154</sup> We seek comment on whether it would be useful to collect and publish certain basic information regarding technical performance levels of carriers subject to our jurisdiction. Information on service quality that would enable comparisons between the performance levels of various telecommunications carriers would potentially create a market-based incentive for carriers to provide quality services. By providing consumers with easy access to publicly available data on the performance level of various carriers, we could potentially spur carriers to compete for customers, among other things, on the basis of service quality in an increasingly competitive telecommunications marketplace.<sup>155</sup> We note, however, that because competition will probably not develop in a uniform fashion throughout the Nation, we seek comment on whether it may be necessary to obtain data that could be used by the public, regulators, and regulated entities, to monitor service quality performance from carriers, particularly those serving in rural areas, that are not currently subject to our existing service quality monitoring program.<sup>156</sup> In proposing to collect and publish this information, we wish to impose the least possible cost on the companies involved. We.

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<sup>151</sup> For example, a "technical standard" would apply to the electrical and signaling parameters at the interface between carriers. A "performance standard" would apply to the speed, accuracy, dependability, availability, and survivability of the transmission/switching path.

<sup>152</sup> Those include the American National Standards Institute Committee T-1, Electronic Industry Association, and Telecommunications Industry Association.

<sup>153</sup> 1996 Act sec. 101(a), § 254(b)(3).

<sup>154</sup> Id. § 254(b)(1).

<sup>155</sup> Airline on-time information is published in "Air Travel Consumer Report," Aviation Consumer Protection Div., Dep't of Transp. (issued monthly).

<sup>156</sup> See 47 C.F.R. §§ 43.21-22. Information reported by LECs includes, inter alia, service installation and repair intervals, trunk blockage rates and switch outage information. These are reported on Automated Reporting and Management Information System (ARMIS) Report Nos. 43-05, 43-06 and 43-07.

therefore, solicit comment on whether industry organizations or State commissions already collect the information that should be contained in these performance reports, and whether it would be reasonable to rely upon such information rather than extending our existing requirements to all carriers. We also ask that the commenters attempt to estimate the potential costs associated with these alternatives, in accordance with the principles stated in Section 254(b)(5) that support mechanisms should be "specific, predictable, and sufficient."<sup>157</sup>

70. Finally, we recognize that such reports may not, in the near future, be necessary for many urban and suburban areas, as local service competition develops and the technical characteristics of competitors' respective services are determined in response to market demands. We therefore ask whether we should take action at some fixed date to evaluate the need for continuing the performance reports, covering services offered to all or some areas of the nation. We request that the Joint Board prepare a recommended decision addressing all of the issues raised in this Notice with respect to monitoring of telecommunications services.

#### **IV. Schools, Libraries, and Health Care Providers**

##### **A. Goals and Principles**

71. Among the seven universal service principles established in the 1996 Act is the principle that "elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services."<sup>158</sup> The Act allows the Commission to designate additional, special services for universal service support for eligible schools, libraries and health care providers.<sup>159</sup> In this section we propose to implement Sections 254(c)(3) (allowing the Commission to designate additional services for such support mechanisms for schools, libraries, and health care providers) and 254(h)(1) (providing guidance on rates and discounts for rural health care providers and educational providers and libraries). As to Section (h)(1), we discuss and seek comment on what services, in addition to the core services discussed in Section III, should be made available to

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<sup>157</sup> 1996 Act sec. 101(a), § 254(b)(5).

<sup>158</sup> Id. § 254(b)(6).

<sup>159</sup> Id. § 254(c)(3). We note that Section 254(h)(4) denies eligibility for discounts to any school or library that "operates as a for-profit business." Id. § 254(h)(4). In addition, the discounts are not available to any elementary and secondary school having an "endowment of more than \$50,000,000" or library that is "not eligible for participation in State-based" applications for library services and technology funds under Title III of the Library Services and Construction Act. Id. § 254(h)(A). See further discussion infra at part V.B.3.

schools, libraries and rural health care providers at a discount.<sup>160</sup> We also seek comment on issues relating to the implementation of Section 254(h)(1) relating to support mechanisms that would enable eligible schools, libraries, and rural health care providers to receive both the core and advanced telecommunications services included among those eligible for universal service support.<sup>161</sup>

72. Access to telecommunications services is important to schools, classrooms, libraries and rural health care providers for a number of reasons. Congress explicitly recognized the importance of telecommunications to these educational institutions and rural health care providers in enacting this legislation:

The ability of K-12 [kindergarten to 12th grade] classrooms, libraries and rural health care providers to obtain access to advanced telecommunications services is critical to ensuring that these services are available on a universal basis. The provisions of subsection (h) will help open new worlds of knowledge, learning and education to all Americans rich and poor, rural and urban. They are intended, for example, to provide the ability to browse library collections, review the collections of museums, or find new information on the treatment of illness, to Americans everywhere via schools and libraries. This universal access will assure that no one is barred from benefiting from the power of the Information Age.<sup>162</sup>

Modern two-way, interactive capabilities will not only enable users at schools, libraries and rural health care facilities to access information, but also give students the ability to participate in educational activities at other schools, including universities; allow students, teachers, librarians and rural health care providers to consult with colleagues or experts at other institutions; may allow parents to participate more easily in their children's education by communicating with the school's telecommunications system; and may facilitate the transmission of data for the practice of telemedicine. Finally, as advanced telecommunications services become ubiquitous, technological literacy will become even more important to our economy. Exposure to telecommunications services for our nation's

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<sup>160</sup> 1996 Act § 254(h)(1).

<sup>161</sup> We note that the statutory scheme of Section 254 distinguishes between eligible health care providers generally and rural health care providers. The support mechanisms created by Section 254(h)(1) would extend only to rural health care providers. Section 254(h)(2), which we discuss in part V., embraces all eligible health care providers as defined in Section 254(h)(5)(B) and not just those operating in rural areas.

<sup>162</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 132-33 (1996).

school children will provide them with skills needed for jobs in a technologically advanced society.

73. In this section, we focus on three tasks that are essential to the implementation of the provisions of the 1996 Act discussed in the foregoing paragraph. First, we seek to identify the services to be supported by federal universal service support mechanisms for schools, libraries and rural health care providers.<sup>163</sup> For schools and libraries, the Act requires that services provided by telecommunications carriers receiving universal service support be "for educational purposes."<sup>164</sup> For rural health care providers, services provided by telecommunications carriers supported by universal service support mechanisms must be those that are "necessary for the provision of health care services in a State."<sup>165</sup>

74. Next, we consider ways to implement the support mechanisms for schools, libraries and rural health care providers. For schools and libraries, we seek comment on how to formulate discount methodologies that ensure that each discount is "an amount that . . . is appropriate and necessary to ensure affordable access to and use of such services by such entities."<sup>166</sup> For rural health care providers, this task includes, *inter alia*, determination of the method to be used by each carrier in calculating the "amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State," for purposes of defining the offset or reimbursement due the carrier under our universal service support rules.<sup>167</sup>

75. We also seek to determine the terms and conditions for the provision of interstate support to telecommunications carriers serving schools and libraries and rural health care providers. We discuss the identification of the health care providers that serve "persons who reside in rural areas," and, correspondingly, the "urban areas in that State."<sup>168</sup> Finally, we discuss which telecommunications carriers may receive universal support pursuant to Section 254.

76. In addition to seeking comment on the approach to the implementation of Section 254(h)(1)(A) discussed below, we seek comment on additional measures that may be

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<sup>163</sup> 1996 Act sec. 101(a), §§ 254(h)(1) & 254(C)(3).

<sup>164</sup> 1996 Act sec. 101(a), § 254(h)(1)(B).

<sup>165</sup> *Id.* § 254(h)(1)(A).

<sup>166</sup> *Id.* § 254(h)(1)(B).

<sup>167</sup> *Id.* § 254(h)(1)(A).

<sup>168</sup> *Id.*

necessary to implement this section. We also refer all these issues to the Joint Board for its recommendation.

## **B. Schools and Libraries**

### **1. What Services to Support**

77. Section 254(h)(1)(B) of the Act states:

All telecommunications carriers serving a geographic area shall, upon bona fide request for any of its services that are within the definition of universal service under subsection (c)(3), provide such services to elementary schools, secondary schools, and libraries for educational purposes at rates less than the amounts charged for similar services to other parties. The discount shall be an amount that the Commission, with respect to interstate services, and the States, with respect to intrastate services, determine is appropriate and necessary to ensure affordable access to and use of such services by such entities.

Section 254(c)(3), in turn, states that "[i]n addition to the services included in the definition of universal service under paragraph (1), the Commission may designate additional services for such support mechanisms for schools [and] libraries . . . for the purposes of subsection (h)." We propose that the set of services designated for federal universal service support pursuant to Section 254(c)(1) and any other services designated for support pursuant to Section 254(c)(3) be made available to schools and libraries pursuant to the discount to be considered in this proceeding.

78. We seek comment and Joint Board recommendation on the additional services that carriers must make available to schools and libraries under Section 254(h)(1)(B). As the legislative history makes clear Congress "expect[ed] the Commission and the Joint Board to take into account the particular needs of . . . K-12 [kindergarten to 12th grade] schools and libraries" in determining which services should be provided at a discount.<sup>169</sup>

79. A February 1996 study, Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, 1995, commissioned by the National Center for Education Statistics, part of the United States Department of Education, observes that these services are not yet widely available in classrooms. Only 9 percent of all instructional rooms

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<sup>169</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 133 (1996).

(classrooms, labs, and library media centers) are currently connected to the Internet.<sup>170</sup> Schools with large proportions of students from poor families are half as likely to provide Internet access as schools with small proportions of such students.<sup>171</sup> Funding and inadequate telecommunications links were the most frequently cited barriers to acquiring or using advanced telecommunications services in public schools.<sup>172</sup>

80. In determining which telecommunications services to support through universal service mechanisms, our goal is to help elementary and secondary schools and classrooms and libraries to have access to advanced telecommunications services<sup>173</sup> and to help minimize the barriers which exist to provision of telecommunications services to schools and libraries. We seek comment on what functionalities should be supported through universal service mechanisms for schools and libraries and what facilities are required to provide those functionalities.<sup>174</sup> In this regard, we seek guidance on how to determine which services will be provided to schools and libraries at a discount pursuant to Section 254(h)(1)(B), without prescribing a specific technical standard for each funded service. We also seek comment on how we should define "geographic area" for purposes of Section 254(h)(1)(B).

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<sup>170</sup> National Ctr. for Educ. Statistics, U.S. Dep't of Educ., Advanced Telecommunications in U.S. Public Elementary and Secondary Schools 1995, (Feb. 1996).

<sup>171</sup> Id.

<sup>172</sup> Id. at 3. In the survey instrument used for the study, public schools were asked which services they now make available to their students, including: (1) computers connected to a local area network; (2) computers with connection or access to a wide area network; and (3) computers connected to the Internet. With respect to Internet access, the survey asked which Internet resources or capabilities a school has access to, including: (1) electronic-mail; (2) news groups; (3) resource locations services; and (4) World Wide Web access. Id. at app. G.

<sup>173</sup> 1996 Act sec. 101(a), § 254(b)(6).

<sup>174</sup> For example, we note that many of the basic voice grade loops that would be available to schools and libraries at discounted prices as part of the basic package of services would permit them to connect to the Internet at the full 28.8 kilobyte per second (kbps) speed of the current fastest popular computer modems. If schools and libraries find it important to have instantaneous transmissions or to handle multiple connections simultaneously, they are likely to require higher capacity, higher speed links. Schools that desire video links to permit teleconferencing will generally find 1.5 Mbps T1 links quite adequate for the "talking head" lecture style of presentations that most teachers present. Yet others may note that to provide high-quality full-motion video in real time today may require a 45 Mbps DS3 link. Technical Personnel Belcore and Bell Operating Companies, Telecommunications Transmission Engineering 363 (1990).

81. In addition, we seek comment on whether wireless technologies may provide a more efficient way of delivering any of the services designated for support. Finally, we also invite comment on how our special definition of services for schools and libraries should reflect future "advances in telecommunications and information technologies and services."<sup>175</sup> We seek comment and Joint Board recommendation on all of these issues.

## 2. How to Implement

### a. Establishment of the Interstate Discount for Schools and Libraries

82. As discussed above,<sup>176</sup> we interpret Section 254(h)(1)(B) of the new Act to entitle schools and libraries to receive discounts on all services falling either within our list of services under Section 254(c)(1) that should receive universal service support, or our list of services for schools and libraries under Section 254(c)(3). Each discount must produce a "rate[] less than the amounts charged for similar services to other parties" and be "an amount that . . . is appropriate and necessary to ensure affordable access to and use of such services by such entities."<sup>177</sup> The 1996 Act gives the Commission the responsibility to establish the discounts on interstate services, while the States are charged with establishing the discounts on intrastate universal services.<sup>178</sup>

83. We seek comment and Joint Board recommendation on the factors to be used in formulating a discount methodology for universal service support for schools and libraries. The methodology could reflect whether the services used are tariffed or whether the charges are for capital investments or recurring expenses. The methodology could also be based on the incremental costs of providing services rather than retail prices. We also seek comment on the estimated costs associated with each discount methodology, and how each methodology would comport with the Act's principle of providing "specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."<sup>179</sup> Overall, we seek comment and a Joint Board recommendation on how the respective State and Federal discount methodologies can be harmonized to ensure that we fulfill Congress's goal that, throughout the nation, elementary and secondary schools, classrooms and libraries have access to advanced telecommunications services.

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<sup>175</sup> 1996 Act sec. 101(a), § 254(c)(1).

<sup>176</sup> See Section V.B.1., *supra*.

<sup>177</sup> 1996 Act sec. 101(a), § 254(h)(1)(B).

<sup>178</sup> *Id.*

<sup>179</sup> *Id.* § 254(b)(5).

**b. Terms and Conditions of Interstate Support for Telecommunications Carriers Providing Discounted Universal Services to Schools and Libraries**

84. Section 254(h)(1)(B) specifies that schools and libraries are entitled to a discount on telecommunications services only if the requested services will be used "for educational purposes."<sup>180</sup> We invite comment on what steps we should take to ensure that this requirement is met. One possible approach would be to have the school or library provide the carrier with a written certification that the requested services will be used for educational purposes and will not be "sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value."<sup>181</sup> We invite comment and Joint Board recommendation on this proposal. To ensure that schools and libraries have a meaningful opportunity to benefit from the discounts, we propose to require each carrier to inform annually each school and library within its geographic serving area of the available discounts.

85. Under the 1996 Act, each "telecommunications carrier[] serving a geographic area shall, upon bona fide request for any of its services that are within the definition of universal service" provide such service to schools and libraries "for educational purposes."<sup>182</sup> We propose that any person qualified under State or local law to order telecommunications services for schools or libraries be deemed capable of making a "bona fide request" for service. We ask for comment and Joint Board recommendation on how to determine with as much precision as possible whether such a request is "bona fide."

86. The Act instructs that "telecommunications services and network capacity" provided to schools and libraries through universal service support mechanisms "may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value."<sup>183</sup> We ask commenters and the Joint Board to address whether this provision will affect the ability of schools and libraries to receive universal service support if they are sharing a network with parties who are not eligible to receive support and what mechanisms could ensure that this provision does not discourage partnerships between schools and libraries and their communities.

**3. Who Is Eligible for Support**

87. The term "elementary and secondary schools" is defined for purposes of Section 254 by reference to the definition found in the Elementary and Secondary Education Act of

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<sup>180</sup> *Id.* § 254(h)(1)(B)

<sup>181</sup> *Id.* § 254(h)(3).

<sup>182</sup> *Id.* § 254(h)(1)(B)

<sup>183</sup> *Id.* § 254(h)(3).

1965.<sup>184</sup> The term "elementary school" is defined there to be "a nonprofit institutional day or residential school that provides elementary education, as determined under State law."<sup>185</sup> The term secondary school means "a nonprofit institutional day or residential school that provides secondary education, as determined under State law, except that such term does not include any education beyond grade 12."<sup>186</sup> Consortia of educational institutions providing distance learning to elementary and secondary schools are considered as educational providers eligible for universal service support.<sup>187</sup> Section 254(h)(4) denies eligibility for discounts to any school or library that "operates as a for-profit business." In addition, the discounts are not available to any elementary and secondary school having an "endowment of more than \$50,000,000" or library that is "not eligible for participation in State-based" applications for library services and technology funds under Title III of the Library Services and Construction Act.<sup>188</sup> To help ensure that these conditions are met, we propose to require that any certification address these eligibility requirements.

88. Each telecommunications carrier providing discounted service to schools and libraries is permitted either to have "the discount treated as an offset to its obligation to contribute to the mechanisms to preserve and advance universal service" or "receive reimbursement utilizing the support mechanisms to preserve and advance universal service."<sup>189</sup> Unlike all other universal service support, which is to be restricted to "eligible telecommunications carriers" under the terms of Section 214(e) of the Act,<sup>190</sup> the offset or reimbursement provided under Section 254(h)(1)(B), pertaining to schools and libraries, must be given to "all telecommunications carriers serving a geographic area." We ask for comment and Joint Board recommendation on how to implement these provisions. Section 254(h)(1)(B) specifies that all discounts shall apply to "the amounts charged for similar services to other parties."<sup>191</sup> We invite comment and Joint Board recommendation on how we might determine those amounts.

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<sup>184</sup> Id. § 254(h)(5)(A).

<sup>185</sup> 20 U.S.C. § 8801(14).

<sup>186</sup> Id. § 8801(25).

<sup>187</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 134 (1996).

<sup>188</sup> 1996 Act sec. 101(a), § 254(h)(4); see also 20 U.S.C. § 353.

<sup>189</sup> 1996 Act sec. 101(a), § 254(h)(1)(B).

<sup>190</sup> Id. § 214(e).

<sup>191</sup> Id. § 254(h)(1)(B)

## C. Health Care Providers

### 1. What Services to Support

89. Section 254(h)(1)(A) requires telecommunications carriers "upon receiving a bona fide request, [to] provide telecommunications services which are necessary for the provision of health care services in a State, including instruction relating to such services, to any public or nonprofit health care provider that serves persons who reside in rural areas in that State at rates that are reasonably comparable to rates charged for similar services in urban areas in that State."<sup>192</sup> According to the Joint Statement, Section 254(h) "is intended to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical . . . services to all parts of the Nation."<sup>193</sup> The Section is also intended to ensure that "rural health care provider[s] receive an affordable rate for the [telecommunications] services necessary for the purposes of telemedicine and instruction relating to such services."<sup>194</sup>

90. Section 254(c)(3) authorizes the Commission to designate support for "additional services" that are not included in the list of services that should receive universal service support under the four definitional criteria of Section 254(c)(1), when those services are provided to "health care providers for the purposes of [S]ubsection [254](h)."<sup>195</sup> Pursuant to Sections 254(c)(3) and 254(h), we propose to "designate additional services" provided to rural health service providers for support. We propose to designate for support these additional telecommunications services to the extent "necessary for the provision of [rural] health care services in a State."<sup>196</sup> We ask interested parties to propose descriptions of the kinds of telecommunications services that are "necessary for the provision of [rural] health care services."<sup>197</sup>

91. Current applications of telemedicine include storage and dissemination of patient records for diagnostic purposes, image compression for efficient storage and retrieval of image data, image-processing for diagnostic purposes, digital transmission of large two-dimensional and three-dimensional medical images, and computerized remote-control of

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<sup>192</sup> Id. § 254(h)(1)(A).

<sup>193</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 132 (1996).

<sup>194</sup> Id. at 133.

<sup>195</sup> 1996 Act sec. 101(a), § 254(c)(3).

<sup>196</sup> Id. § 254(h)(1)(A).

<sup>197</sup> See id. § 254(h)(1)(A).

medical equipment.<sup>198</sup> They may also include the ability to gain easy and rapid access to medical databases, such as those of transplant candidates. Emerging telemedical applications include real-time transmission of video images (*i.e.*, for physician-to-physician and physician-to-patient consultations); direct transmission of medical data to hospitals from medical devices to patients at home; and "data mining" of large databases of patient records for use in medical education and diagnostics.<sup>199</sup> In transmitting medical information, some aspects of telemedicine may require telecommunications services meeting high technical standards, such as standards for quality of visual resolutions.<sup>200</sup>

92. Many of the telemedical applications discussed above require high-speed telecommunications capability. Asynchronous transfer mode (ATM) and integrated systems digital network (ISDN) technologies may provide the most promising choices for transfer of telemedicine data.<sup>201</sup> In describing telecommunications services that they believe "necessary for the provision of [rural] health care services," commenters should discuss the number of simultaneous use transmission paths and the speed of transmission required by telemedicine practitioners. To the extent that specific telecommunications services constitute "advanced telecommunications and information services," as described in Section 254(h)(2)(A), we request that commenters evaluate the extent to which providing health care providers with access to those services is "technically feasible and economically reasonable."<sup>202</sup>

93. We seek comment on what "additional services"<sup>203</sup> are necessary "for the provision of [rural] health care services in a state."<sup>204</sup> In addition, we seek comment on the nature of the "instruction relating to such [health care] services" telecommunications carriers provide their subscribers.<sup>205</sup>

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<sup>198</sup> Peter A. Ensminger *Telemedicine*. Northeast Parallel Architectures Center (1996).

<sup>199</sup> *Id.*

<sup>200</sup> *See* American College of Radiology Standard for Teleradiology, Res. 21 (1994) (available from the American College of Radiology).

<sup>201</sup> Ensminger, *supra* n. 194. Because they have capacity to transmit large quantities of data quickly, ATM and ISDN would facilitate the high-speed transfer of telemedicine data.

<sup>202</sup> 1996 Act sec. 101(a), § 254(h)(2).

<sup>203</sup> *Id.* § 254(c)(3).

<sup>204</sup> *Id.* § 254(h)(1)(A)

<sup>205</sup> *Id.*

94. We seek technology-neutral descriptions of the telecommunications functionalities that health care providers require as well as the names of the current technologies they are using to provide these functionalities. We also request comment on whether limiting discounts to outgoing services would be sufficient to meet the needs of rural health care providers or whether incoming services should also be discounted. We ask the Joint Board convened herein to prepare a recommended decision regarding these issues.

## 2. How to Implement

95. To implement Sections 254(h)(1)(A) of the 1996 Act, we must designate areas as either urban or rural. This is necessary to determine whether a particular health care provider "serves persons who reside in rural areas" and to identify the "urban areas in that State," for purposes of establishing "reasonably comparable" rates for "telecommunications services which are necessary for the provision of health care services in a State." For these purposes, we seek a methodology that is based on publicly available data, is neither under-inclusive nor over-inclusive, and that is easily administered.<sup>206</sup>

96. One alternative could be to adopt the existing classification system developed by the Office of Rural Health Policy of the Health Resources and Services Administration (HRSA) for its Rural Health Services Outreach Grant Program.<sup>207</sup> The HRSA classifications are based initially on Metropolitan Statistical Areas (MSAs) designated by the Office of Management and Budget (OMB). MSAs divide the nation into metropolitan and nonmetropolitan counties, which we would treat as urban and rural areas, respectively. The HRSA criteria, however, recognize that some MSAs are extremely large and contain some very rural areas.

97. Another approach would use data prepared by the United States Department of Agriculture's Economic Research Service.<sup>208</sup> The Economic Research Service divides nonmetropolitan areas into six categories, depending on whether or not they are adjacent to a metropolitan county and whether the population of the county is a) less than 2,500, b) between 2,500 and 20,000, or c) greater than 20,000.<sup>209</sup> Because these data do not define urban and rural areas, we invite the commenters to suggest ways we could use them to determine whether areas should be considered urban or rural.

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<sup>206</sup> See S. Conf. Rep. No. 104-230, 104th Cong., 2nd Sess. 1 (1996) (expressing a congressional intent to create a "pro-competitive, de-regulatory national policy framework").

<sup>207</sup> See Health Resources and Servs. Admin., Dep't of Health and Human Servs., Notice of Availability of Funds, 60 Fed. Reg. 64168, 64169 (1995).

<sup>208</sup> See U.S. Congress Office of Technology Assessment, Rural America at the Crossroads: Networking for the Future 36-38 (1991).

<sup>209</sup> Id. at 38.

98. We ask interested parties to comment on these methods for defining rural areas in a state for the purposes of the sections of the Act pertaining to rural health care providers. We also invite comment on alternative methodologies for delineating urban and rural areas for these purposes. We ask commenters to discuss whether each proposed methodology is based on publicly available data, is neither under-inclusive nor over-inclusive, and could be easily administered. In addition, we seek comment on use of these evaluative criteria and on the costs associated with these proposals pursuant to Section 254(b)(5), which requires universal service support mechanisms to be "specific, predictable and sufficient."

99. Section 254(h)(1)(A) requires telecommunications carriers to provide rural health care providers with the services that we define as necessary "at rates that are reasonably comparable to rates charged for similar services in urban areas in [their] State."<sup>210</sup> We believe that fulfillment of our responsibilities under Sections 254(h)(1)(A) and 254(h)(2) may require that we adopt guidelines for telecommunications carriers to follow in establishing such rates. We ask commenters to address whether compliance with those guidelines should be a condition of eligibility for telecommunications carriers to receive interstate support for telecommunications services provided to rural health care providers under Section 254(h).

100. In establishing an appropriate methodology for ensuring "reasonably comparable" rates, we wish to minimize, to the extent consistent with Section 254, the administrative burden on regulators and carriers. It could, for example, prove unduly burdensome to require the submission of information necessary to calculate weighted averages of the rates in all urban areas in order that the telecommunications services which are "necessary" for the provision of health care to be provided to rural health care providers are priced at reasonably comparable rates.<sup>211</sup> We interpret the "reasonably comparable" requirement as requiring less than absolute precision in determining the appropriate rates for rural health care providers under these provisions of the new Act. Accordingly, we request comment on how carriers should derive the rates applicable to rural health care providers to ensure they are priced at a reasonably comparable rate.

101. In addition, the amount of credit or reimbursement to carriers from the health care support mechanism is based on the difference between the price actually charged to eligible health care providers and the rates for similar, if not identical, services provided to "other customers" in rural areas in that State.<sup>212</sup> We invite comments on how to determine the rate for rural non-health care providers and the rate for urban health care providers necessary to calculate the amount of credit. Commenters should discuss whether average rates should be computed or whether some other method would be more appropriate.

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<sup>210</sup> 1996 Act sec. 101(a), § 254(h)(1)(A).

<sup>211</sup> Id.

<sup>212</sup> Id.

102. While it may be difficult for carriers to establish the rates for similar services provided to rural areas in a State if identical services are not provided, it is likely that similar services will generally be available. We seek comment, however, on whether there is a need to define when services are comparable and, if so, how we might do so.

103. We also ask that interested parties address the appropriate safeguards to ensure that telecommunications carriers providing service pursuant to Section 254(h)(1)(A) are, in fact, responding to the receipt of a "bona fide request" for "telecommunications services which are necessary for the provision of [rural] health care services in a State."<sup>213</sup> We seek comment on whether we might require certification from rural health care providers requesting telecommunications services under Section 254(h)(1)(A) or from telecommunications carriers that provide such services. One approach to such certification would be to require each telecommunications carrier providing telecommunications services to rural health care providers under this provision to obtain written certification that the services are necessary for the provision of health care services. We seek comment on this approach, as well as suggestions for alternative or additional measures to ensure that universal service support provided to telecommunications carriers under Section (h)(1)(A) is used for its intended purpose.

### 3. Who Is Eligible for Support

104. In order to receive support under the universal service support mechanisms for service to rural health care providers, a telecommunications carrier must meet two criteria. First, it must provide service to a "health care provider" as defined by Section 254(h)(5)(B). Section 254(h)(5)(B) defines "health care provider" to mean:

- (i) post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools;
- (ii) community health centers or health centers providing health care to migrants;
- (iii) local health departments or agencies;
- (iv) community mental health centers.
- (v) not-for-profit hospitals;
- (vi) rural health clinics; and
- (vii) consortia of health care providers consisting of one or more entities described in clauses (i) through (vi).<sup>214</sup>

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<sup>213</sup> Id.

<sup>214</sup> Id. § 254(h)(5)(B)

Second, a telecommunications carrier must provide service to "persons who reside in rural areas" in the state in which the health care services proposal for support are provided under Section 254(h)(1)(A).<sup>215</sup>

105. Section 254(h)(1)(A) states that a "telecommunications carrier" providing service under this paragraph "shall be entitled to have an amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State treated as a service obligation as a part of its obligation to participate in the mechanisms to preserve and advance universal service."<sup>216</sup> This language differs from that of Section 254(h)(1)(B), which explicitly permits "[a]ll telecommunications carriers serving a geographic area" providing designated services to schools and libraries to be reimbursed for services, either through "an offset to its obligation to contribute to the mechanisms to preserve and advance universal service," or through "reimbursement utilizing the support mechanisms to preserve and advance universal service."<sup>217</sup>

106. In view of the differences described in the foregoing paragraph, we request comment on whether any statutory or policy rationale requires treating telecommunications carriers providing service under Section 254(h)(1)(A) differently than telecommunications carriers providing service under Section 254(h)(1)(B) for reimbursement purposes. We invite commenters to address whether Section 254(h)(1)(A) provides for an offset to contributions, and whether it prohibits direct compensation payments. Finally, we request comment addressing the desirability of using the same offset or reimbursement alternatives set forth in Section 254(h)(1)(B). We request the Joint Board's recommendation regarding the appropriate resolution of the issues described in this section.

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<sup>215</sup> Id. § 254(h)(1)(A)

<sup>216</sup> Id.

<sup>217</sup> Id. § 254(h)(1)(B)

V. **Enhancing Access to Advanced Services for Schools, Libraries, and Health Care Providers**

A. **Goals and Principles**

107. Section 254(b)(6) directs the Commission and the Joint Board to adopt policies designed to assure "elementary and secondary schools and classrooms, health care providers, and libraries . . . access to advanced telecommunications services."<sup>218</sup> Section 254(c)(3) enables the Commission to designate additional, special services for universal service support for eligible schools, libraries and health care providers.

108. Section 254(h)(2) directs the Commission to establish "competitively neutral rules. . . to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries."<sup>219</sup> As the Joint Statement explains with respect to advanced services:

New subsection (h)(2) requires the Commission to establish rules to enhance the availability of advanced telecommunications and information services to public institutional telecommunications users. For example, the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State, and local governments, and information services which can be carried over the Internet.<sup>220</sup>

The Commission is further directed to "define the circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users."<sup>221</sup>

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<sup>218</sup> Id. § 254(b)(6).

<sup>219</sup> Id. § 254(h)(2)(A).

<sup>220</sup> S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 133 (1996).

<sup>221</sup> 1996 Act sec. 101(a), § 254(h)(2)(B). "Public institutional telecommunications user" is defined as an elementary or secondary school, a library or health care provider as defined in Section 254 (h)(5)(C). Id. § 254(h)(5)(C).

## B. How to Implement

109. In Section IV, we sought to identify a set of telecommunications services to be supported by Federal universal service support mechanisms for schools, libraries and rural health care providers. We now seek to identify those advanced telecommunications and information services that carriers should make available to all eligible health care providers, libraries and school classrooms to the extent technically feasible and economically reasonable. We ask commenters to identify such services and to identify the features and functionalities required to give eligible health care providers, libraries and school classrooms access to those services. We also ask commenters to suggest competitively neutral rules that we could adopt "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries." Specifically, we ask whether the "advanced telecommunications and information services" addressed in Section 254(h)(2) should be a broader, narrower, or identical group to those supported under Section 254(h)(1). Further, we request suggestions as to any additional measures, other than discounts and financial support, that would promote deployment of advanced services to school classrooms, libraries and health care providers.

110. For each measure, we ask commenters to address: whether it would be competitively neutral for carriers, telecommunications providers, and any other affected entities, and whether it complies with the Act's requirement that "telecommunications services and network capacity" provided to public institutional telecommunications users "may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value."<sup>222</sup> We seek comment on how we should assess whether particular services that provide access to advanced telecommunications and information services are "technically feasible and economically reasonable."<sup>223</sup> We also ask that the commenters attempt to estimate the potential costs associated with such measures, pursuant to the principle stated in Section 254(b)(5) that support mechanisms should be "specific, predictable and sufficient."<sup>224</sup> Similarly, we request proposals to implement our responsibility, under Section 254(h)(2)(B), "to define the circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users."<sup>225</sup> We also refer these issues to the Joint Board for its recommendation.

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<sup>222</sup> Id. § 254(h)(3).

<sup>223</sup> Id. § 254(h)(2)(A).

<sup>224</sup> Id. § 254(b)(5).

<sup>225</sup> Id. § 254(h)(2)(B).