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Office of The Secretary
 Federal Communications Commission
 1919 M Street, N.W.
 Washington, DC 20554

April 12, 1996

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APR 12 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Secretary:

Comments on FCC 96-93 in CC Docket No. 96-45 [i.e., universal service for schools and libraries under the new Telecommunications Act of 1996] are enclosed with this submission on behalf of the following organizations that are included in the **Access to Communications for Education [ACE] Coalition** for purposes of this filing:

- American Association for Adult and Continuing Education
- American Psychological Association
- Association for Educational Communications & Technology
- Center for Language Minority Education and Research
(California State University, Long Beach, California)
- Council for American Private Education
- Council of the Great City Schools
- Douglass Policy Institute
- Florida Association for Computers in Education
- Half Hollow Hills School District (Dix Hills, New York)
- Hawaii State Department of Education (Office of Information and Telecommunications)
- International Society for Technology in Education
- ISTE Special Interest Group on Telecommunications
- Pacific Southwest Regional Technology Consortium
- Pennsylvania Association of Educational Communications and Technology
- Public Service Telecommunications Corporation
- United States Distance Learning Association
- West Virginia Computer Using Educators

If you have any questions about this filing, please contact us at the ISTE USA National Policy Office, (703) 351-5243.

Sincerely,

Dennis L. Bybee, Ph.D.
 Associate Executive Officer

Enclosure: FCC 96-93 Comments
 cc: FCC 96-93 Service List
 ACE Coalition Members

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Executive Board Members: Connie Stout, Secretary ■ Barry Pitsch, Treasurer ■ M.G. (Peggy) Kelly, Past-President ■ Terrie Gray, At Large

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Before the
Federal Communications Commission
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Federal-State Joint Board on) CC Docket No. 96-45
Universal Service [FCC 96-93])
)

To: The Federal-State Joint Board on Universal Service

COMMENTS OF THE ACCESS TO COMMUNICATIONS
FOR EDUCATION [ACE] COALITION

1. The Access to Communications for Education [ACE] Coalition¹ requests that the Federal-State Joint Board on Universal Service adopt rules pursuant to their Notice of Proposed Rulemaking [NPRM] on Universal Service that will implement the following plain English provisions for school, classroom and library telecommunications access which we believe are mandated in Section 254 of the Telecommunications Act of 1996²:

a. Access to the National Information Infrastructure³ [NII] for schools, classrooms, and libraries (i.e., telecommunications carriers responding to telecommunications service requests from school and/or library officials);

¹. The Access to Communications for Education [ACE] Coalition is made up of the *International Society for Technology in Education* [ISTE] and other organizations listed in Appendix A.

². The Telecommunications Act of 1996, PL 104-104, 110 Stat. 56(1996) (to be codified at 47 U.S.C 151 et seq) as reported in the Congressional Record of Proceedings and Debates of the 104th Congress, Second Session, Vol. 142, No. 13, dated Wednesday, January 31, 1996, pgs. H1078-79, H1082-83, H1104-06, H1111-13, and H1135.

³. The NII: Requirements for Education and Training, John Yrchik and John Cradler, ISTE, March 25, 1994 [See Appendix C].

b. Rates for requested telecommunications services that are affordable (i.e., discounted rates that are "less than the amounts charged for similar services to other parties"⁴) for schools, classrooms, and libraries; and

c. Support for telecommunications carriers who offer discounted rates for telecommunications services to schools, classrooms, and libraries (i.e., to have "an amount equal to the amount of the discount treated as an offset to [their] obligation to contribute" OR to "receive reimbursement utilizing the support mechanisms to preserve and advance universal service."⁵)

Hereinafter, Coalition comments on specific questions raised by the Commission in its NPRM are intended to address how these plain English provisions might best be implemented.

2. Comment on NPRM Question No. 4 about how each of the seven principles enunciated in Section 254(b) should influence Board policies on universal service.

a. Seven Principles. Each of the seven principles address an important concern; and, collectively, they should serve as the basic criteria for judging whether Joint Board recommendations and/or Commission rules are appropriate. The following three principles are especially important as criteria for rules relating to school, classroom, and library access:

(1) Principle Three--ACCESS IN RURAL AND HIGH COST

⁴. Section 254(h)(1)(B)--Educational Providers and Libraries.

⁵. op cit #4

AREAS. This provision states that "Consumers in all regions of the Nation, including *low-income* consumers and those in rural and high insular, and high cost areas, should have access to telecommunications and information services..."; and, it should be used to ensure that essential services are provided to schools and libraries in *low-income* communities as well as to those in more affluent communities.

(2) Principle Five--SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS. It is essential that educational programs operate in an environment where carefully planned efforts are sustainable over a minimal 3- to 5-year life cycle. Therefore, specificity in regard to available services, pricing, and support mechanisms for defined periods is essential.

(3) Principle Six--ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES. This principle must be applied literally; and, in conjunction with Sections 254(c)(1)(A), 254(c)(3), 254(h)(1)(B), 254(h)(2)(A), and Section 706, should be interpreted as requiring rules to ensure that affordable telecommunications access is available for ALL school offices, classrooms, and libraries in America.

b. Quality. In regard to educational services, quality should be measured by the extent to which consumers operating and using telecommunications services in schools, classrooms, and libraries *believe* that they are able to utilize such services to accomplish their respective educational objectives. This should be assessed periodically through consumer surveys that could be conducted by telecommunications carriers and reported to the FCC for maintenance as part of the public record pursuant to Sect. 706.

c. Affordable. For educational purposes, this notion relates to the ability of schools, classrooms, and libraries to acquire and utilize telecommunications services. In its most fundamental measure, affordability should be assessed periodically by reference to the percent of school and libraries that want and are able (i.e., Number Able/Number Wanting x 100) to utilize such services for educational purposes.⁶ The results of these periodic assessments should be utilized in setting and revising discounts and/or in establishing other incentives to encourage utilization of telecommunications services for educational purposes by schools and libraries.

3. Comment NPRM Question 9. "[The Commission] interprets the statutory language of Section 254(c)(1) as manifesting Congressional intent that the Joint Board and the Commission consider all four criteria when deciding what services to support through Federal universal service. [The Commission] interprets this language, however, -- particularly the use of the word "consider" -- to allow the Joint Board and the Commission to include services that do not necessarily meet all of the four criteria. [The Commission] seek[s] comment and the Joint Board's recommendation on this interpretation. [The Commission] also asks how [it] should evaluate whether a service or feature is "essential to education, public health, or public safety."⁷

a. Interpretation(s). It is essential that these four criteria be applied independently as suggested by the Commission.

⁶. See Section 706(b)--INQUIRY.

⁷. FCC NPRM 96-93, paragraph 9, pages 7 and 8

Several telecommunications services, for example, might be considered essential by a majority of schools and libraries for educational purposes; but, might not be "subscribed to by a substantial majority of residential customers."⁸

b. Features Essential to Education. It is absolutely *imperative* that this determination be made by school, classroom, and library consumers through their individual and collective purchases of telecommunications services offered to them at discounted rates by all telecommunications carriers. And, universal service for educational purposes should support State and local decision-making by including *all available telecommunications services* at appropriately discounted rates.

RATIONALE It is the often stated intent of Congress that "Universal service is an evolving level of telecommunications services that the Commission shall establish periodically ... taking into account advances in telecommunications and information technologies and services"⁹; and, that "additional services" need to be identified for schools and libraries.¹⁰ In fact, schools and libraries throughout the United States are presently using and planning uses of a variety of telecommunications services to accomplish their respective educational purposes. And, they are almost all in different stages of implementing these desired services. This variety is representative of the evolving

⁸. Section 254(c)(1)(B)

⁹. Section 254(c)(1)--DEFINITION-IN GENERAL.

¹⁰. Section 254(c)(3)--Special Services

definition of universal services that is considered essential by these consumers based upon their level of technological sophistication and their individual educational objectives. In America, determination of educational purposes is and must be preserved as the right and responsibility of State and local decision-makers.

4. Comment on NPRM Question 16 about "core services". The following very basic services should be included among those core services that are included in the definition of universal services for educational purposes with the "*point-of-presence*" (i.e., final point at which services are provided) being to every school office, classroom and library in America: (a) voice grade access to the public switched network, with the ability to place and receive calls; (b) touch-tone dialing; (c) single party service; (d) access to emergency services (911); and (e) access to operator services.

Additionally, core services must include provision of telecommunication services for handicapped employees and students receiving special education services as required by the Individuals with Disabilities Education Act [IDEA], the Americans with Disabilities Act [ADA], and/or any subsequent legislation addressing the special needs of employees and/or students.

5. Comment on NPRM Question 17 about what additional services meet the statutory criteria of Section 254(c)(1) and therefore should be among the services that should receive universal service support.

Based on the four criteria specified in Section 254(c)(1), frame relay services, ATM, directory listings, access to interexchange services, voice mail, school-parent connections (e.g., school bulletin-board, list-serve capability), local (or 800 number supported long distance) internet access, electronic mail accounts for students and educators, data transmission capability, optional Signalling System Seven features or blocking of such features, and high speed transmission and broadband telecommunications services [e.g., ISDN PRI (23B&1D channels) operating over a T1 line with data rate transmission capability of at least 128 kbps] are current quality *examples* of additional basic services that should be included for educational purposes.

6. Comment on NPRM Question 46 about how "eligible telecommunications carrier[s]" will advertise the availability of their universal services and the charges therefor.

Eligible telecommunications carrier(s) should advertise their available telecommunications services, their pricing and the applicable educational discounts by annually (i.e., perhaps in January) posting and periodically updating lists of their services, prices, and applicable educational discounts with the FCC, each State public utilities commission, and with each State department or office of education; and by providing a consumer oriented version of their most recent filing to any requesting school or library official.

7. Comment on NPRM Question 71 about what additional "*special services*" should be designated under universal service support for

eligible schools, libraries and health care providers.

a. **Special Services Definition.** In addition to the core services and additional basic services discussed in Section III of this NPRM (see points 4 and 5 in this filing), eligible schools, classrooms, and libraries should also have *access to all available advanced telecommunications services at discounted rates* and with universal service support according to a sliding scale of discounts that are in general [i.e., taking school/library unique requirements into consideration] and direct proportion to the use of such services in K-12 education and libraries (i.e., least used services -- and perhaps the most advanced and expensive telecommunications services -- should be assigned the lowest discounts and receive the least amount of support under the universal services support concept; conversely, most used services -- and perhaps the least advanced and inexpensive telecommunications services -- should be assigned the most discounts and receive the highest amount of support under the universal services support concept.)

In this proposal, core and additional basic services would receive the most support (i.e., largest discounts) under universal service; and, there would still be incentives for schools and libraries to utilize the most advanced telecommunications services in accomplishing their educational purposes.

Applicable discounts could range from 100% (e.g., for basic dial tone service) to 5 or 10% (e.g., for the most advanced services); *but, in all cases and for any services, schools and libraries must be charged "rates less than the amounts charged for*

similar services to [any] other parties."¹¹

b. Support Mechanism(s). In implementing Section 254(h)(1)(B), the Act requires that any telecommunications carrier providing services to schools and libraries "... shall-- (i) have an amount equal to the amount of the discount treated as an offset to its obligation to contribute to the mechanisms to preserve and advance universal service, or (ii)" ... " receive reimbursement utilizing the support mechanisms to preserve and advance universal service."¹² With respect to mechanisms, this language requires:

(1) Discount(s). The Commission for interstate and the States for intrastate services must: (a) establish a listing of services for which universal service discounts are required or encouraged under Sections 254(c)(1)(A), 254(c)(3), 254(h)(1)(B), 254(h)(2)(A), and Section 706; (b) determine the amount of discount (e.g., percent less than rates charged to any other parties) that is "appropriate and necessary to ensure affordable access to and use of such services"¹³ by schools and libraries; and (c) estimate the annual dollar amount that would be required to support purchases of such discounted services by schools and libraries in each State throughout the United States.

(2) Obligation(s). The Commission for interstate and the States for intrastate services must: (a) establish and maintain a universal service support fund; (b) develop and collect estimated universal service obligations from each telecommunication

¹¹. op cit #4

¹². op cit #4

¹³. op cit #4

provider based on their gross annual revenues or telecommunications industry market share; and (c) maintain account balances including offset records and records of reimbursements for each telecommunications provider according to the discounted services they provide to schools and libraries.

(3) Implementation. In setting discounts and managing obligations, there must be cooperation between the Federal Communications Commission and each State regulatory commission. This is absolutely essential in order to these agencies to carry out the intent of Congress as set forth in the seven universal service principles, and especially in regard to principles: **two** which requires "access to advanced telecommunications and information services"... "in all regions of the Nation"; **three** which requires "ACCESS IN RURAL AND HIGH COST AREAS"; and **four** which requires "EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS" from "All providers of telecommunications services."¹⁴ Cooperation is, in fact, required by the Congress in Section 254(f) wherein State authority is limited to the "adopt[ion] of regulations **not inconsistent** with the Commission's rules to preserve and advance universal service" in each State.

Wherever possible, Federal-State cooperation should take the form of a single set of telecommunications service discounts for schools and libraries with a single automated universal service support fund that could be maintained with *separate accounts for each State*. The universal service obligation of all telecommunications carriers should include a prorata contribution (i.e., based on gross annual revenues or

¹⁴. Section 254(b)--UNIVERSAL SERVICE PRINCIPLES

telecommunications industry market share) to support administration of these universal service fund(s).

8. Comment on NPRM Section 72 relating to the importance of access to telecommunications services for schools, classrooms and libraries.

The Commission¹⁵ has accurately summarized the Congress' explicit recognition of the importance of telecommunications to educational institutions in enacting the Telecommunications Act of 1996. In part, this recognition is repeated here for emphasis as follows --

"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."¹⁶

9. Comments on NPRM Section IV.B.-- questions about "What Services to Support", "How to Implement", and "Who is Eligible for Support".

a. What Services to Support. In general, schools,

¹⁵. FCC NPRM No. 96-93, Section 72, pgs. 36-37

¹⁶. S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 132-33 (1996)

classrooms, and libraries should receive discounted rates for *all available telecommunications services*. Under Section 254(c)(1), these services should include: (1) "core services" -- as described in point 4 of this filing, and (2) "additional services" -- as described in point 5 of this filing. Under Section 254(c)(3), these services should include "special services" -- as described in point 7a of this filing; and, they should be designated to receive universal service support under Section 254(h)(1)(B).

(1) Additional Services [NPRM Question 78].

[See point 5 in this filing.]

(2) Study [NPRM Comment 79]. The Commission and the Joint Board should recognize that the referenced February 1996 NCES study, Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, 1995, does NOT provide specific data on school utilization of telecommunications services *by State*. More specific 1996 data by State will be needed by the Commission in order to accomplish the progress "Inquiry" that it must conduct in 30-months under Section 706.

(3) Functionalities/Facilities [NPRM Question 80].

The Federal Communications Commission and the various State Public Utility Commissions *should NOT try to presume or dictate what functionalities, facilities, or services should be provided to schools and libraries at a discount* pursuant to Section 254(h)(1)(B). It is absolutely *imperative* that this determination be made by school, classroom, and library consumers through their individual and collective purchases of telecommunications services offered to them at discounted rates by all telecommunications providers.

[See Rationale provided in point 3b of this filing]

If all available telecommunications services are included in those that are made available to schools and libraries at varying discounts depending on their general availability and utility in K-12 schools and libraries, GOVERNMENT REGULATIONS will not become a principal barrier inhibiting and potentially misdirecting the evolution of telecommunications services in America's schools and libraries.

Universal services and available discounts to schools and libraries should track free enterprise decision-making if the resultant objectives are to ensure that school children and adults will have the "skills that are needed for jobs in a technologically advanced society."¹⁷

(4) Technical Standards [NPRM Question 80]. There are several instances in the Act where the Commission is directed to establish rules which are neutral with respect to competing technologies. For example, "advanced telecommunications capability is defined¹⁸, "without regard to any transmission media or technology." In keeping with this legislative history, it is suggested that the Commission not prescribe discounts based upon any transmission media or technology; but, rather concentrate on prescribing discounts for each available telecommunications service based on its utility in the marketplace.

(5) Geographic Area [NPRM Question 80]. In order to facilitate universal service fund administration (see point 7b in this filing), the applicable "geographic area" should be each State or combination thereof.

¹⁷. FCC NPRM 96-93, Section 72, page 37.

¹⁸. Section 706(c)(1)--Advanced Telecommunications Incentives/Definitions

(6) Wireless Technologies/Advances in Telecommunications and Information Technologies and Services [NPRM Question 81].

(a) Wireless Technologies. Pursuant to the legislative history and rationale provided in point 9.a.(4) above, it is not appropriate for the Commission to make any special provision or discount to either encourage or discourage development of wireless technologies. Basic universal service competition principles such as "quality and rates" should determine which technologies are best able to provide the telecommunications services that are needed by schools and libraries.

(b) Advances in Telecommunications and Information Technologies and Services. The Commission should annually establish discounted rates for all available telecommunication services based on categorical filings from all telecommunications providers. As future services evolve in education, government, and private industry, applicable discounted rates should routinely be established by the Commission for use in schools and libraries.

b. How to Implement. In general, the Federal Communications Commission and the various State Public Communications Commissions should adopt common discounts on all available telecommunications services for schools and libraries. [See point 7 in this filing.]

(1) Establishment of the Interstate Discount for Schools and Libraries [NPRM Question 83].

(a) Discount Methodology. [See point 7 in this filing] In formulating discounts, the following factors should be considered:

(i) applicability of the four defining principles of universal service;

(ii) utility of the service as determined from surveys of usage in schools and libraries; and

(iii) degree to which cost is the primary barrier to service acquisition by schools and libraries.

(b) Tariffed Charges, Capital Investments, and Recurring Expenses. The Act seems silent on what type of expenses are to be included in discounted rates for schools, classrooms, and libraries. One might assume that, under universal services, schools and libraries can only be charged for telecommunications services at discounted rates. In this assumption, all expenses incurred by telecommunications carriers in providing services to schools and libraries must be recovered through service rates and/or universal service offsets or reimbursements.

(c) Incremental Cost. Incremental cost is a methodology which was considered and rejected by the United States Senate in its deliberations on education access provisions of S. 652 wherein "rates less than" and "discount" language was substituted in Section 254(h)(1)(B) of PL 104-104.

(d) Estimated Costs. Financial modeling software could probably be used -- in combination with data on current usage and planned acquisition of telecommunications services by schools and libraries -- to develop estimated annual costs, service obligations, offsets, and/or reimbursements to telecommunications carriers participating in the universal services support program. [See points 7.b.(1) and (2) in this filing]

(d) Specific, Predictable and Sufficient Mechanisms. The FCC and each State Public Utilities Commission should establish and publish annual lists of universal services and applicable discounts; and, such discounts should be either increased (as a percent of what is charged to [any] other parties) or maintained in effect for from 3- to 5-years.

(e) Harmonizing Federal and State Discounts. This is absolutely essential and might best be accomplished by having common discounts for both inter- and intra-state services. [See point 7.b.(3) in this filing]

(f) Advisory Board. The Commission should establish an *"Advisory Board on Education and Health Care Provider Discounts"* which could meet once a year and advise the Commission on discount rates for these universal services under Section 254. This board should have about 15 members including 5 members representing telecommunications carriers and at least 10 members recommended by national associations representing school, library, and health care provider constituencies. Representing school and library constituencies -- for example, board member associations might include the National PTA, Secondary and Elementary Principals Associations, curriculum specialty groups such as the National Council of Teachers of Mathematics, the National Education Association, the International Society for Technology in Education, the Council of Chief State School Officers, and the American Library Association.

(2) Terms and Conditions.

(a) Certifications [NPRM Question 84]. In general, all telecommunications carriers must respond to requests for telecommunications services from school and/or library

officials within their geographic area *without requiring any additional certification* as to: (a) whether or not such services are being used for "educational purposes"¹⁹, or (b) whether or not such services are being "sold or resold, or otherwise transferred by such user in consideration for money or any other thing of value"²⁰. Since these requirements are specified in Public Law, any request for discounted services must presume compliance and enforcement would not be enhanced or thwarted by the imposition of such proforma barriers.

On the other hand, similar safeguards might better be accomplished by telecommunications carriers advising school and library customers of these requirements in their *advertisements* [see point 7 in this filing which responds to Question 46] and/or in their contracts for discounted services.

(b) *Bona Fide Requests* [NPRM Question 85]. Any school or library official authorized to obligate funds for telecommunications services must be deemed capable of making a "bona fide request" for such services; and, any such request must be treated as "bona fide" by all telecommunications carriers.

(c) *Shared Network Capacity* [NPRM Question 86]. If the network service provider is a school or library sharing capacity obtained under its universal service entitlement, it could not provide discounted services to non-eligible entities. If schools or libraries are receiving network services from entities not eligible for universal service discounts, they should still be able to obtain universal service discounts from these non-

¹⁹. op cit #4

²⁰. Section 254(h)(3)

eligible service carriers IF these non-eligible service carriers have resale agreements with authorized telecommunications carriers that can provide discounted services under the universal services program. To preserve the integrity of State or local community networks operated by non-eligible entities AND in which schools and libraries participate, the FCC should recognize these entities as "bona fide" requestors of discounted universal services for eligible entities that participate in their networks. [See NPRM Question 85.]

c. Who Is Eligible for Support.

(1) Consortia, for-profit businesses, and endowed libraries [NPRM Question 87]. In addition to and for use in all educational programs offered by elementary and secondary schools, consortia of educational institutions providing distance learning to elementary and secondary schools are considered as educational providers eligible for universal service support. However, Section 254(h)(4) denies eligibility for discounts to any school or library that "operates as a for-profit business" or has an "endowment of more than \$50,000,000" or is a 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."²¹

To help ensure that these conditions are met, telecommunications carriers should include notice of such provisions in their advertisements and in their service contracts which include discounts under the universal services program.

(2) Support Mechanisms [NPRM Question 88]. [See

²¹. Section 254(h)(4)--Eligibility of Users.

point 7 in this filing.]

(3) Determination of Amounts Charged for Similar Services to Other Parties [NPRM Question 88]. The Federal Communications Commission and the separate State Public Utilities Commissions should first define "amounts charged for similar services to other parties" in a term such as the "open market rate". Then, they will have to monitor implementation of published "open market rates" and applicable educational discounts for various telecommunications services. These *"open market rates" should be the "LOWEST amounts charged for similar services to other parties"*. In the event that telecommunications carrier's published "open market rates" are not the LOWEST amounts charged for similar services to other parties, the FCC and the various State PUCs should: (a) recover any outstanding universal service obligations, (b) reimburse schools and/or libraries that have been overcharged, and (c) assess penalties for intentional and/or flagrant violations of this requirement. Schools and libraries could help the FCC and State PUCs monitor implementation by reporting instances where "open market rates" may not be the LOWEST amounts charged for similar services to other parties.

10. Comments on NPRM Section V questions about "Enhancing Access to Advanced Services for Schools and Libraries", "How to Implement", and "Who is Eligible for Support".

a. Goals and Principles [NPRM Comments 107 and 108]. The Commission has correctly stated instances where the Commission and/or the Joint Board is directed to designate and/or encourage the availability of advanced telecommunications services in schools and libraries -- including the following cited Congressional

example of services that could be included:

"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."²²

b. How to Implement. In general and as stated elsewhere in this filing, *all telecommunications services -- including those designated as "advanced telecommunications and information services"* -- should be included in Section 254(c)(3) and in the group of services supported under Section 254(h)(1)(B). More specifically, it is essential that those services defined in Section 254(h)(2) be *identical* to those defined for educational purposes in Section 254(h)(1).

(1) Identify Advanced Telecommunications Services [NPRM Question 109]. Advanced telecommunications services are defined in Section 706(c)(1) "... without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." As defined here in the Act and by legislative example,²³ these advanced services should be included in the definition of universal services needed for educational purposes under Section 254(c)(3) and supported under

²². S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 133 (1996)

²³. op cit #22

Section 254(h)(1)(B).

(2) Incentives. [For notes on discounts, see point 7 in this filing.] It is suggested that discounted rates for telecommunications services be available as incentives for their development; but, in smaller amounts so as to preserve the integrity of the universal service fund. For the most part, very advanced services are more expensive, less available from telecommunications carriers, and less likely to be purchased by schools and libraries for educational purposes. Therefore, incentives other than discounts and financial support should be used in order to stimulate their availability in the marketplace.

(a) Professional Development. To overcome this major barrier, telecommunications carriers should be authorized to conduct in-service training on advanced telecommunications services for school and library personnel under the universal service program (i.e., with costs reimbursed or applied against universal service obligations.)

(b) Advanced Services Grants. One obvious measure would be to set aside funds in the universal service program to support research, development, and demonstration projects in eligible schools and libraries under one or more of the existing Federal education technology programs (e.g., National Technology Challenge Grants, NTIA/TIIAP, or NSF's NIE program).

(c) Product Development Grants. Another important measure would be to set aside funds in the universal service program to support development of technology applications of advanced telecommunications services for schools and libraries. For example, needed products could be developed under Title III, Part A, Subpart 4-Product Development, of the Improving America's

Schools Act of 1994 [PL 103-382, Oct. 20, 1994].

(d) Empowerment Zones. Telecommunications carriers should have extra incentives to provide services to schools and libraries in minority and low-income communities that have been identified by the Congress and the President as being within "empowerment zones" where access equity is especially important. [See Appendix B.]

(e) Competitive Neutrality/Costs. These proposed incentives are neutral with respect to what technologies are employed. And, costs associated with these proposals should probably be no more than 1 percent of funds established under universal services for school and library discounts.

(3) Define Circumstances [NPRM Question 110] circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users. [See above comment on "shared network capacity" in response to NPRM Question 86.]

CONCLUSION

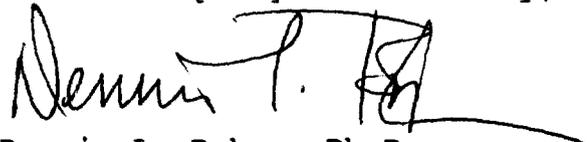
11. The Coalition believes that the Federal-State Joint Board on Universal Services should make recommendations to the Commission that are consistent with these comments; and, in particular with respect to the following conclusions:

a. Basic telecommunications services must be provided under universal services for educational purposes with the "**point-of-presence**" (i.e., final point at which services are provided) being to every school office, classroom and library in America;

b. Universal service for educational purposes should support State and local decision-making about what services should be provided by including *all available telecommunications services* at appropriately discounted rates; and that

c. The determination of how the definition of universal services should evolve must be *made by school, classroom, and library consumers through their individual and collective purchases of telecommunications services offered to them at discounted rates by all telecommunications providers.*

Respectfully submitted for the
ACCESS TO COMMUNICATIONS FOR
EDUCATION [ACE] COALITION by,



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April 12, 1996

Appendix A. Organizations Represented In This Filing By The
Access To Communications For Education [ACE] Coalition

American Association for Adult and Continuing Education
American Psychological Association
Association for Educational Communications & Technology
Center for Language Minority Education and Research (California
State University, Long Beach, California)
Council for American Private Education
Council of the Great City Schools
Douglass Policy Institute
Florida Association for Computers in Education
Half Hollow Hills School District (Dix Hills, New York)
Hawaii State Department of Education (Office of Information and
Telecommunications)
International Society for Technology in Education
Iowa Computer Using Educators
ISTE Special Interest Group on Telecommunications
Pacific Southwest Regional Technology Consortium
Pennsylvania Association of Educational Communications and
Technology
Public Service Telecommunications Corporation
South Central Regional Technology in Education Consortium
United States Distance Learning Association
West Virginia Computer Using Educators