Universal Service in the Schools: One Step Too Far?

Christine M. Mason*

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I. Introduction

Universal service originated as a national goal directed at furnishing basic telephone service to high-cost rural areas and low-income households at discounted prices. Cross-subsidies, usually created by above-cost pricing of long-distance and business services, were used to compensate the telephone companies that supplied telephony to the targeted regions.

The Telecommunications Act of 1996 (Act or 1996 Act) changed the universal service scheme. In section 254, entitled "Universal service," Congress codified several new principles. First, implicit cross-subsidies are no longer the primary source of funds. Instead, all telecommunications carriers providing interstate telecommunications services must contribute to a universal service fund on an "equitable and nondiscriminatory" basis. Second, universal service was broadly defined as an "evolving level of telecommunications services that the [Federal Communications] Commission shall establish periodically. . . taking into account advances in telecommunications and information technologies and services." Third, universal service was expanded beyond providing rural and poor areas with telephone services to donating advanced technological services to schools, libraries, and health care providers.

This Note argues that the new universal service provision opens a Pandora's box. The provision is ambiguously written and supplies the Federal Communications Commission (FCC or Commission) with few guidelines on how to implement the statute. It also substantially increases both the number of eligible recipients as well as the funds needed to provide the support. Consequently, the FCC will be making critical policy choices that will have serious consequences for the public at large.
This Note examines the universal service provision in the limited context of what they will mean to elementary and secondary schools—new recipients of benefits under the Act. Part II of this Note furnishes a brief overview of universal service history to illustrate the dramatic changes brought by the universal service provision. Part III discusses the statute's ambiguity in defining universal service and hence the FCC's great discretion to determine what types of services will be available to schools. Part IV discusses policies that must be considered when evaluating the FCC's plan to implement the provision. Finally, Part V suggests approaches the FCC should follow in order for universal service support to benefit schools without placing undue hardship on the general public.

II. History

The need for basic communication services has long been recognized. Alexander Graham Bell himself declared that "a telephone in every house would be considered indispensable." This seemed an accurate prediction since over thirteen million telephones existed in the United States by 1920. Almost thirteen percent of the nation had telephone service and over half were residential consumers. Recognizing the need for even more service, especially in rural areas, Congress began to implement universal service as a policy goal.

In 1934, Congress passed the Communications Act (1934 Act), which promoted telephone service in rural areas and areas of low density. The purpose of the 1934 Act was to "make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities and reasonable charges." Under the 1934 Act, however, only the most basic service consisting of a single-line connection to each house—generally referred to as Plain Old Telephone Service (POTS)—was provided.

In order to provide affordable services, telephone companies engaged in price juggling. Implicit cross-subsidization was the most common funding mechanism for universal service support. High-cost areas, such as outlying rural regions, were furnished service at below-cost prices. These discounted rates were then offset by charging low-cost areas higher prices for services. Typical subsidization schemes included long-distance services subsidizing local service; business services subsidizing residential services; and urban subscribers subsidizing rural subscribers. Some explicit subsidies were also devised to alleviate the cost of servicing poor and rural areas and to increase subscribership. For example, the Lifeline Assistance and Link-Up America programs were used to reduce the monthly telephone bills of needy subscribers. The subscribers' bills were reduced to an amount equal to the subscriber line charge—a flat monthly charge assessed to all users. The Universal Service Fund was another explicit fund. Its purpose was to give assistance to those telephone companies facing costs that were above the national average.

Funding universal service through cross-subsidy schemes successfully brought basic telephone communication to most Americans. Nonetheless, it is estimated that six million U.S. households still do not have telephone service. Lack of service is especially prevalent in regions primarily consisting of low-income, minority, and young populations. As new technologies emerged, particularly in electronic communication, the old definition of universal service seemed inadequate. People worried that if the universal service breadth was not expanded, then information disparities between the "haves" and "have-nots" would only increase. Congress responded to these concerns by writing section 254 of the 1996 Telecommunications Act. Universal service underwent noticeable changes in this provision. For the first time, visible mechanisms for funding universal service were created. Telecommunications carriers providing interstate telecommunications services were required to contribute to universal service support on an "equitable and nondiscriminatory" basis. Furthermore, universal service was extended beyond traditional recipients such as low-income and rural households to recipients such as elementary and secondary schools. Finally, a Federal-State Joint Board (Joint Board) was also created to make recommendations to the FCC concerning implementation of the universal service provision.

The Joint Board issued a Notice of Proposed Rulemaking seeking comments on how to define the services and what mechanisms to utilize for funding. Responses varied from those in the telephone and computer industries, educational professionals, and individual school districts. Some commentators asserted that only "core"
telecommunications services should be supported. Others argued that both "core" and supplementary services such as the Internet, internal connections, and interactive video should be offered to allow schools flexibility in accessing information.

After receiving hundreds of reply comments and holding public meetings, the Joint Board issued recommendations on November 8, 1996. Ultimately, the Joint Board broadly recommended that eligible schools be given maximum flexibility to purchase telecommunications services economically suited to their particular needs. It rejected the request to limit discounts to only "core" telecommunications and recommended that schools be provided with discounts on all commercially available telecommunications services, Internet access, and internal connections. The Joint Board also recommended a minimum school discount rate of twenty percent, stipulating that economically disadvantaged schools would receive greater discounts ranging from forty to ninety percent. Total expenditures for the subsidy would be limited to 2.25 billion dollars per year, but any funds not disbursed during the year could be carried over and used in the next year. Schools would be required to submit a plan on how they would utilize the discounts they received. The FCC adopted the Joint Board's recommendation on May 7, 1997.

III. Statutory Interpretation

The FCC must act within the boundaries of the universal service statute when taking any action to implement universal service in the schools. In order to determine the extent of the FCC's authority, the statute is analyzed to see whether any clear meaning exists that must be given effect. If Congress has not specifically addressed the question at issue, then the agency charged with administering the statute—the FCC in this instance—may fill in the gaps with a reasonable interpretation. Where ambiguity exists in the statute, the agency decision is given broad deference.

The universal service provision in section 254 of the Act contain a great deal of ambiguity. Thus, the FCC is left with much authority to define universal service and determine how it will be implemented within the schools.

A. The Statute's Plain Meaning

The universal service statute's language must be examined to determine what services can be legitimately provided to schools. For purposes of this Note, there are two relevant sections to analyze: 254(c) and 254(h).

Section 254(c) discusses the definition of universal service. Subsection 254(c)(1) deals with the definition of universal service "In general," and states 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." Unfortunately this language does not give the FCC much assistance in determining what types of services can be supplied to schools. First, the definition of telecommunications is quite liberal. The Act defines the term "telecommunications" as the "transmission, between or among points, specified by the user, of information of the user's choosing, without change in the form or content of the information sent and received." As one scholar has noted, this definition could conceivably include such acts as mailing a letter, sending a fax, throwing a newspaper on the lawn, or telephoning and leaving a message on the recipient's answering machine. Second, the statute indicates that universal service should be an evolving level of telecommunications service, but then instructs the FCC to consider both telecommunications and information services in establishing the universal service definition. This is confusing, however, since information services and telecommunications services are not synonymous.

Subsection 254(c)(3), entitled "Special services," specifically addresses schools and formed a strong basis for the FCC's Report and Order relating to schools. This part of the statute contemplates providing different services than those services offered in subsection (c)(1). Subsection (c)(3) states that "in addition to the services included in the definition of universal service under paragraph (1), the [FCC] may designate additional services for such support mechanisms for schools, libraries, and health care providers for the purposes of subsection (h)." The title "Special services" is insightful. "Special" is accepted to mean "distinguished by some unusual quality," "being other than the
usual," or "designated for a particular purpose or occasion." The "additional services" language suggests that the FCC is specifically authorized to expand the types of services offered to schools. Otherwise, the words "special" and "in addition" would be meaningless. Furthermore, it is important to note that in this section schools do not seem restricted by any of the "telecommunications" language in section 254(c)(1). When comparing subsections, the Supreme Court has said that the differing language in two subsections must be given effect. Thus, subsection (c)(3) conceivably extends the universal service definition for schools beyond general telecommunications services.

In addition to subsection 254(c), one must look at subsection 254(h) for meaning as to the services available to schools under the universal service provision. Subsection (h) addresses telecommunications carriers' obligations to provide services to education providers and libraries. The FCC also relied heavily on this subsection to justify its selection of services for schools. Subsection 254(h)(1)(B) states:

all telecommunications carriers serving a geographic area shall, upon a bona fide request for any of its services that are within the definition of universal service under subsection (c)(3) of this section, 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 . . .

This subsection indicates that Congress intended to provide schools with an extensive array of services; otherwise, Congress would have referred back to the more narrow definition of services under subsection 254(c)(1).

The statute also addresses "advanced telecommunications" for schools in subsection 254(h)(2)(A). Although the Joint Board relied upon this provision for its recommendation regarding universal service, the FCC did not. Subsection 254(h)(2)(A) instructs the FCC to establish competitively neutral rules designed to enhance access to advanced telecommunications and information services for elementary and secondary schools with the requirement that the rules be technically feasible and economically reasonable. Again, the statute seems to be concerned with providing both telecommunications and information services to schools.

The two applicable subsections, 254(c) and 254(h), do not furnish any clear meaning as to what school services can be subsidized. The statute speaks of services "in general," of "special services," and of "advanced telecommunication and information services." Sometimes the statute limits itself to telecommunications services and at other times it includes both telecommunication and information services. Hence, the statute's language does not provide a clear directive for the FCC to follow when determining universal service technologies available to schools.

B. Legislative History Shows General Intent

To Provide Information

When a statute's language does not clearly express an intent, legislative history is examined. The legislative history surrounding the universal service provision is as complex as the statute's language. The following Senate Conference Report illustrates Congress's lack of specificity in defining services, but shows its intent to allow the FCC great discretion in servicing schools with modern communications media:

Subsection (b) of the new section 253 [now enacted as section 254] provides that the Commission shall define universal service, based on recommendations from the public, Congress, and the Joint Board. To ensure that the definition of universal service evolves over time to keep pace with modern life, the subsection requires the Commission to include, at a minimum, any telecommunications service that is subscribed to by a substantial majority of residential customers.

Furthermore, this comment also seems to indicate that telecommunications services should establish a floor for the types of technologies provided to schools; it does not indicate that other services beyond telecommunications cannot be provided.

Other comments found within the Senate Conference Report demonstrate Congress's intent to remain flexible
concerning the types of communications services offered, thus its ambiguity in defining these services. Congress recognized that the universal service provision should not remain stagnant, but evolve over time. It gave the FCC specific authority to define universal service in a way that will be most beneficial to education. Furthermore, the Senate report mentions that the universal service provision "will help open new worlds of knowledge, learning and education to all Americans" and assure that "no one is barred from benefitting from the power of the Information Age." Congress alluded to possibilities that could be included in the definition of "advanced telecommunications and information services" by stating:

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.

Similarly, the House of Representatives realized that technological capabilities would quickly evolve, and so it too advocated the use of a fluid definition of universal service. The House envisioned using the new Act as a model of progress not necessarily limited to telecommunications. Its goals were simple:

Over a number of years, Congress has sought to update antiquated communications laws while remaining true to the three core principles of the Communications Act of 1934 that have guided communications policy for decades: universal service, diversity, and localism. These three principles have served our nation well and have helped bring Americans the finest communications technology and services in the world. The challenge for policymakers is to reform the rules in a way that retains these core values as they are impacted by two new factors: rapid technological change and fierce competition.

The Senate and House of Representatives also saw the 1996 Act as a potential breakdown of traditional barriers between telephone and cable services, and discussed how this blending of communications services would bring great benefits to the public's children. Congress saw it as an opportunity for telephone and video providers to modernize their communications infrastructure at a faster pace. Consumers such as schools, who ordinarily could not afford the technology, would benefit from receiving a larger selection of quality services at lower rates.

Finally, the U.S. Advisory Council on the National Information Infrastructure noted that of the jobs available in the year 2000, sixty percent will require skills in information technologies. It observed that "[i]n some ways, schools are the most important component of the Information Superhighway. Their success in implementing and instructing students on the use of Information Age technologies may determine how well children assimilate into the working world." Again, the commenters' voice concerns about furnishing children with information in general, but do not specifically limit the services to telecommunications.

C. The End Result Is Ambiguity

The statute's language and history do not provide a clearly expressed legislative intent as to what should constitute universal service technologies for schools. Since the statute is ambiguous, the FCC's interpretation of what constitutes universal service is given extensive deference. Courts have long recognized that considerable weight should be given to an agency's construction of the statute it is entrusted to administer since the agency can draw upon its expertise to resolve any ambiguities. Such a policy allows the FCC ample discretion and opportunity to define the technologies capable of being funded to schools.

IV. Policy Considerations

Many policy considerations accompany the FCC's discretion to define the services available to schools. Most everyone would agree that providing schools with advanced technology is a laudable goal. Who does not want our children to
have access to the best communications services? Unfortunately, intending to give these services is easier than actually equipping the schools. Considerations such as cost, efficiency, intrusion into educational policy making, and prior obligations must be examined when evaluating the FCC's plan to implement universal service in the schools.

A. Economics

The largest obstacle to injecting technology into schools is economics. Ascertaining the cost of providing universal service is considered the "debate within the debate." Obviously this is a crucial determination since it is a necessary factor in divining cost-based rates in a competitive market. One cost indicator could be the price of providing basic telephone services to households. However, since the past method of funding universal services was a combination of explicit and implicit mechanisms, it is difficult to estimate exactly how much money was being collected under the old system to equip households with basic telephone service. The annual figure for explicit funding under the old Universal Service Fund, made up of contributions from interexchange carriers, was approximately 700 million dollars. The implicit funding subsidizing above-cost areas is less certain. Estimates for this funding range from 4 billion to 20 billion dollars annually.

Accurately projecting the costs of supplying schools with effective services is next to impossible. Commentators have estimated that there could be as many as 113,000 eligible public and nonpublic schools. The amounts required to service the schools have varied between 300 million dollars and 20 billion dollars. The size and disparity of these figures are overwhelming. Even more demonstrative of the ambiguity in projected costs is one commentator's statement that the FCC's goal is "to have a fund that is large enough to do the job, but no larger." As the above comments illustrate, it will be difficult to ascertain what services can be provided to schools in an economical and meaningful manner since there is no concrete notion of available funds or service costs. The cost discrepancies are not just a matter of a few dollars or even a few thousand dollars. Instead, the differences in estimation lie in the billions of dollars.

Another cost complication associated with Congress's intent to subsidize universal service for schools is its effect on consumers. One should remember that "[u]niversal service is not free; it does not grow on trees or float along in the air for us to pluck it." Universal service funding is going to come from levying proportionate taxes on all service providers. The telecommunications carriers required to contribute to the universal service fund are businesses, not charities. As such they expect—indeed have an obligation—to make a profit. If the cost of servicing schools runs into the billions of dollars, carriers are going to need to spread their losses to consumers.

Consumers will certainly see an increase in their bills, and this raise could produce several unintended effects. First, consumers rarely like price increases, especially when many think the rates they pay are already too high. Consumers might not appreciate having to make advanced services affordable for others when they themselves can barely pay for the basics. Worse yet, some consumers could be forced to forego the use of telecommunications services altogether. Many people already experience difficulties paying monthly fees and large toll bills. Supplying universal services to entities like schools just exacerbates the problem. In helping schools, we might unintentionally cause more people to go without the basics, or to resort to seeking assistance.

A second consequence is that people could begin to utilize less efficient means of communication, such as letter writing and other nontelecommunications services, just to avoid increased costs. A technology backslide could occur within the general population.

Certainly neither of these consequences would meet the Act's goal of providing affordable means of information services to all Americans. The purpose of the universal service provision was to increase the number of people with access to updated technology, not to dissuade users. Also, Congress has repeatedly stated that the 1996 Act was intended to make the telecommunications industry more competitive. With increased competition, technology should become more efficient, and the associated costs should decrease. Clearly, an unmanageable universal fund would not achieve these ends.
B. Efficiency

Efficiency should also be considered when evaluating subsidized services for schools. It is necessary to question how efficient and effective the technology will really be. Obviously there is not enough money in the fund to provide schools with all of the technologies they need. A problem could arise where schools are receiving money for technologies but are not able to make full use of them either because they lack supporting equipment or knowledgeable instructors. For example, the FCC adopted a universal service recommendation allowing for the funding of wiring and Internet service, but not personal computers. It is feasible that money could be used to wire a school, yet the school district could not provide enough computers to utilize the Internet service. Even the Joint Board commented on this possibility in its decision by noting that only thirty-five percent of public schools currently have access to the Internet and only three percent of classrooms are connected due to both the lack of funds to buy computer equipment and the inability to pay connection charges.

The FCC hoped to eliminate efficiency concerns by requiring applicant schools to submit technology plans that would provide information on the computer equipment, software, and staff training currently available or budgeted for the current or future academic years. The plan would also include information on how the schools plan to utilize the technologies in the future. Nonetheless, since there is a price cap on the amount of funds available, schools may feel it is necessary to request funds just so they can get their "piece of the pie," even though they are not currently equipped to utilize the technology.

Furthermore, even if schools scrape together enough money to purchase computers in order to have telecommunications capacity, one ought to consider how often these services are going to be used. Assuming every classroom had a computer—which would be quite an accomplishment in itself—it is unlikely that the telecommunications services would be frequently utilized. How productive and educational will it be if twenty-five children are crowded around one computer? Moreover, there just might not be enough time during the school day to use the services. Teachers still must concentrate on teaching the basic curriculum and neither they nor the children have much time to spend "surfing the Net."

Finally, many people hoped subsidizing universal service for schools would lessen the information gap between the "haves" and "have-nots." This is unlikely to happen. The FCC stated that schools will receive a minimum discount of twenty percent and a range from thirty to ninety percent for the most disadvantaged schools. The wealthier schools will be able to use their portion of the money to enhance the services and equipment they already possess. They will be able to buy more computers, better technologies, and training for their educators. Meanwhile, the more economically disadvantaged schools will still be trying to obtain the basic services. Although they will have some technology where none previously existed, it is not likely to reduce any information gap. In addition, the less wealthy schools are less likely to have the time and human resources to effectively utilize the services.

C. Intrusion into Education Policy Making

The FCC's large role in defining what services are eligible for support also poses another potential problem. Although the FCC has expertise in communications, it is not an expert in education. It is irrational and unwise to allocate to regulators, and not to education professionals, the power to determine which educational tools will be used in the classroom. As one critic has noted "the needs of educational institutions may vary from state to state and a definition of what advanced service is needed for education in one state may not be appropriate in another." Although the FCC is not directly determining what educational services will be used, and although it states a desire to allow schools maximum flexibility in planning, it is logical to assume that, for economic reasons, schools are most likely to use those tools capable of being subsidized. The FCC will be involving itself in education policy making, an area best left to others.

D. Prior Universal Service Obligations

As a final consideration, it is important to remember that there still exists a large portion of Americans who cannot
afford basic telephone service. Telephone service availability is almost ninety-four percent. Yet it is estimated that 6 million households still do not have a telephone. Most of these are low-income and minority households. Approximately twelve percent of Black and Hispanic American homes have no telephone service and seventeen percent, or one in six families, lack telephone service in the rural south and the urban centers of America's largest cities. This raises a concern since communication by telephone is easily considered a necessity for safety as well as for participation in business, government, and education. Adding schools to the list of eligible recipients for universal service support reduces the likelihood that we will have more money to help provide basic telephone services to those in need. It is hard to justify providing advanced services when we have not even fulfilled the goal of ensuring all Americans access to telephony.

V. Recommendations

The Act, both through its language and through the practice of deferring to an agency's interpretation where the meaning is not clear, gives the FCC much discretion to implement the universal service provision. There are several things the FCC should do or continue to do in order to facilitate an effective administration of this provision while keeping with the overall spirit of the Act: have a realistic goal; set aside funds for furnishing basic telephone service; prioritize the dispensing of funds; and enact strict certification and accounting procedures.

As a beginning principle, the FCC and the public need to be realistic about what it will be able to accomplish through the universal service provision. Although everyone wants our nation's children to have the best technology available, it is not going to happen for every child in every school. The universal service fund will assist some schools in obtaining technology, but it certainly is not going to thrust them into the Information Age. The benefits gained will be minimal at best.

Second, the FCC should set a majority of the universal service funds aside for furnishing basic telephone service to areas of high cost and poverty. It is more important for all Americans to have access to basic telephone services than for a student to have limited Internet capabilities. Telephone service is still the main mode of communication. Most of our ability to contact businesses and government agencies depends on the availability of phone service. In addition, telephony is a necessity for safety. Our emergency response system is based around the telephone and not the Internet. Furthermore, the original justification for universal service was to provide citizens with access to plain old telephone service. We should keep striving to meet that goal.

Third, since Congress's goal was to ensure all schoolchildren access to telecommunications services, the FCC should continue its rules of priority for dispersing the limited funds. Congress certainly did not intend to create a complete division of "haves" and "have-nots." Although universal service may not ultimately decrease the information gap, the FCC can help poor schools gain exposure and join the Information Age by providing economically disadvantaged schools "first dibs" at the universal service fund.

Fourth, in order to prevent inefficient use of the services, the FCC should also enact strict certification and accounting procedures. Since the funding resources are scarce, we cannot afford to have them wasted. The FCC should maintain its requirement that schools submit certification of their current capacity to utilize the services. However, the FCC should only award funds to those schools who currently possess the necessary technology or will possess it within the next academic year rather than in the indeterminate future. This requirement would prevent schools from prematurely applying for funds and would guarantee that the funds are being used in the most efficient manner. In addition, the FCC should continue to require each school requesting services to provide a description of how they plan to incorporate the services into an educational program. This will not be an undue burden since it is parallel to requirements imposed on recipients of other federal funding. It will also make it easier to determine whether or not the requests are for bona fide educational purposes and if the schools will be able to use the provided technology. Finally, as a check on abuse and fraud, each school should be required to enact internal accounting procedures to make certain that the technology is being used in an educational manner. As a condition of acceptance the schools are subject to regular audits by an agency or official appointed by the FCC, but internal audits will also help guarantee that a good faith effort is being made to put the funds to good use.
As a last recommendation, the FCC should endeavor to keep a broad and flexible definition of services entitled to funding. A broad definition would empower schools to select the types of technologies best suited for their curriculum and their financial needs. It would also have the effect of making the FCC less involved in education policy making.

VI. Conclusion

Implementing the new universal service provision presents a formidable task for the FCC, especially since it did not receive much direction from Congress. It also requires the FCC to make several policy choices. In order to achieve the goals of the 1996 Act while using the funds in the most beneficial manner, the FCC should keep several considerations in mind while exercising the broad discretion granted to it under the Act. First, it will be nearly impossible to provide schools with all the capabilities they need without overburdening the universal service fund. Second, money is a precious resource that will have to be allocated. The FCC should continue to make economically disadvantaged schools its first priority, particularly since this would be in keeping with universal service's traditional spirit of providing basic communication to those in need. Third, the FCC should be certain to enforce its accountability policies as well as consider adding new protections. Universal service funds cannot and should not be wasted, particularly since we have not met our first universal service commitment to almost 6 million Americans.

* B.S., Michigan State University; Candidate for J.D., Indiana University School of Law—Bloomington 1998.


5. Id. § 254(b)(4).

6. Id. § 254(c)(1).

7. Id. § 254(b)(6).


9. Mueller, supra note 1, at 357.


If the point is not intuitively obvious, suppose it costs $100 to string a telephone line one mile. Such a line might service one million people in Chicago, but only 10 people in the rural parts of Montana. If the latter are to receive phone service at the national average cost per home of stringing a wire to the home, then rural Montana residents will pay less than the costs of stringing wire to them.

14. Fraser, supra note 13, at 4 (citing Kennedy, supra note 2, at xvii); see also Brad E. Mutschelknaus, A Primer on


17. Id. at 4-5 (citing Herbert S. Dordick, Toward a Universal Definition of Universal Service, in Universal Telephone Service: Ready for the 21st Century? 121 (Institute for Information Studies 1991)).


20. Id. § 254(b)(6), (c)(3).

21. Id. § 254(a)(1).


23. Federal-State Joint Bd. on Universal Serv., Recommended Decision, 12 FCC Rcd. 87, para. 459, 5 Comm. Reg. (P & F) 1 (1996) [hereinafter Universal Serv. Recommended Decision] (TCI comments arguing that requiring carriers to provide services beyond "core" telecommunications services would impose costs on carriers, thereby limiting the ability of new companies to enter the local telephone market; Ameritech reply comment stating that federal mandates regarding specific services would conflict with initiatives already underway in many states to bring technology to their regions), amended and adopted by Report and Order, 7 Comm. Reg. (P & F) 109 (1997).

24. Id. paras. 449, 454 (citing comments from Florida Cable, NCTA, West Virginia Consumer Advocate, and Oakland School District).

25. Id. para. 458.

26. Id. paras. 458-60.

27. Id. paras. 547, 555.

28. Id. para. 556.

29. Id. paras. 600-606.


33. Chevron, 467 U.S. 837.


35. Id. § 153(43).
36. Krattenmaker, supra note 13, at 3.


39. Webster's Ninth New Collegiate Dictionary 1131 (1983); see also The Random House Dictionary of the English Language 1831(2nd ed. 1987) (defining "special" as "having a specific or particular function, purpose, etc." or "distinguished or different from what is ordinary or usual").

40. See Russello v. United States, 464 U.S. 16, 23 (1983) (stating "[w]e refrain from concluding here that the differing language in two subsections has the same meaning in each. We would not presume to ascribe this difference to a simple mistake in draftsmanship.").


47. Id. at 131.

48. Id.

49. Id. at 132-33.

50. Id. at 133.


52. Id. at 216.

53. Id. at 53.

54. Id.


58. Temple, supra note 15, at 100.

Joint Board, Notice of Inquiry, 9 FCC Rcd. 7404, 7413 (1994)).


62. Some sources indicate that "[e]stimates on subsidies to schools and libraries range between $300 million and $3 billion . . . ." Internet Serves As Forum for Universal Service Discussion, Comm. Today, Aug. 28, 1996, available in 1996 WL 11475707. Estimating a higher ceiling has been Commissioner Susan Ness: "We need to replace these implicit subsidies with ones that are explicit, targeted, specific, predictable, and sufficient to meet Congress's stated objectives. . . . I have heard wildly different estimates of the funds needed to do this, from $4 billion to well above $20 billion." Ness Opposes Raising Residential Local Rates to Finance Universal Service, Comm. Today, Oct. 17, 1996, available in 1996 WL 11476303; see also Senators Fear `Ed Net' Discounts May Only Benefit Urban Schools, F.C.C. Rep., May 8, 1996, available in 1996 WL 8542582 (noting that the cost of providing network connection to schools and monthly usage fees are estimated at $6.7 billion and $1.4 billion respectively over five years).

63. Note that these figures do not include an estimation of the funds necessary for other recipients of universal service funding, such as health care providers and rural areas.


66. See, e.g., Krattenmaker, supra note 13, at 22 n.132 (stating "I beg every representative and senator who voted for this bill, and the President who signed it, to forgive me for calling this thing by its correct name. The new Act, of course, does not employ the 'T word.'").

67. See, e.g., Federal-State Joint Bd. on Universal Serv., Notice of Proposed Rulemaking and Order Establishing Joint Board, 11 FCC Rcd. 18,092, para. 113 (1996)("[R]ecovery of the full interstate allocation of common line costs directly from end-users might cause the flat monthly rates paid by certain subscribers to exceed acceptable levels, and could have an adverse impact on telephone subscribership.").

68. Mutschelknaus, supra note 14, at 114.

69. Krattenmaker, supra note 13, at 42.


71. See, e.g., Deborah Stead, Cash Poor Schools Open Doors to Commercialism, The Com. Appeal (Memphis), Jan. 5, 1997, at A6 (pointing out that some schools face such severe budget restraints that they are forced to accept corporate advertising); Carol Jouzaitis, Many Schools and Libraries Can't Afford Internet Link, Chi. Trib., Dec. 11, 1996, at 11 (stating that the Prince William School District in Virginia estimates that it has spent $6 million on wiring and equipment for its schools in the past two years. The article also acknowledges that hardware is not the only expense; there will be substantial costs associated with training teachers to use the Internet.).


75. At least one commentator questions whether poor schools really need supplementals like Internet access over money that could be provided to furnish real necessities like food:

Why have we decided—on behalf of Americans who live in rural areas, low income consumers and high school principals—that what they need most is cheap Internet access? What if they would rather have a cheap hot breakfast every day? . . . Why should we not choose to spend those dollars to subsidize hot meals for low income consumers or high school students . . .?

Krattenmaker, supra note 65, at 377.


78. Cate, supra note 12, at 52.

79. Fraser, supra note 13, at 4.

80. Cate, supra note 12, at 52 (citing Lack of Access to Technology Feared, Plain Dealer (Cleveland), May 29, 1994, at 11).


82. It has been noted that 62% of schools serving affluent children have Internet services while only 31% of schools serving the poor have access. See National Telecomm. and Info. Admin., U.S. Dep't of Commerce, Falling Through the Net: A Survey of the "Have Nots" in Rural and Urban America 2 (July 1995).

83. For example, in order for universities to obtain federal grants for research they must submit detailed proposals explaining how they intend to use the funds and prove that they have the necessary facilities and resources to efficiently use the grant.