S. HRG. 103-783

S. 2195, THE NATIONAL PUBLIC TELECOMMUNICATIONS INFRASTRUCTURE ACT OF 1994

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

JUNE 22, 1994

Printed for the use of the Committee on Commerce, Science, and Transportation

U.S. GOVERNMENT PRINTING OFFICE

80-580 CC WASHINGTON : 1994

Superintendent of Documents, Congressional Sales Office, Washington, DC 20402

ISBN 0-16-046035-2

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WEDNESDAY, JUNE 22, 1994

U.S. SENATE,
SUBCOMMITTEE ON COMMUNICATIONS OF THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room SR–253 of the Russell Senate Office Building, Hon. Daniel K. Inouye (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: John D. Windhausen, Jr., senior counsel, and Sheryl J. Wilkerson, staff counsel; and Regina M. Keeney, minority senior counsel, and Mary P. McManus, minority staff counsel.

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. This morning, the subcommittee has an opportunity to address an issue that forms the foundation of our Nation's communication policy—protection of the public interest. As we are all aware, the communications industry is undergoing tremendous change. Each day a new product or service emerges on the information superhighway or the national information infrastructure. Most of the talk about the NII and the superhighway has focused on competition and corporate interests. I believe more attention should be given to the social benefits and public interest needs of the information highway.

I believe that we should do more to protect the very principle upon which our communications policy was founded. That is why I introduced S. 2195, the National Public Telecommunications Infrastructure Act of 1994. S. 2195 would guarantee that noncommercial and public interest groups are reserved a place on the information highway. The bill would require telecommunications networks that use public rights-of-way to reserve capacity for certain entities for the provision of free educational, informational, cultural, civic, or charitable services to the public.

The bill directs the Federal Ccommunications Commission to determine the amount of capacity and to establish guidelines for allocating the capacity. It also directs the FCC to establish a fund so that eligible entities will have the economic support they need to use the reserved capacity. The set-aside requirement contained in the bill is not permanent. The bill allows for the reduction or elimi-

nation of the set-aside when telecommunications facilities have sufficiently open architecture and capacity.

Approximately 100 public interest, broadcasting, educational, library, civic, and cultural groups have expressed their support for the bill. They believe that the legislation would ensure their full participation on the information superhighway.

I realize that the legislation raises several constitutional issues that are of concern to the telecommunications industry. The American Law Division of the Congressional Research Service recently conducted a preliminary analysis of the bill and concluded that, if challenged, the proposal is likely to withstand constitutional review by the courts. Mr. Chairman, your comments, please.

OPENING STATEMENT OF SENATOR HOLLINGS

Mr. CHAIRMAN. Good morning. Last month the Commerce Committee completed its ninth hearing on S. 1822, the Communications Act of 1994. The focus of that hearing was education and the need to improve access and delivery of information for educational purposes. During the hearing several witnesses voiced concerns about the need to ensure that educational institutions have access to the information superhighway. Several witnesses also requested that the committee hold an additional hearing to explore the various means by which these institutions and other noncommercial entities could be guaranteed access on telecommunications networks that use public rights-of-way.

I am pleased that Senator Inouye has taken up the call and has introduced a new bill directly on this topic. I am also pleased that he has chosen to hold this hearing so that we may explore the issues in this legislation before the committee considers S. 1822.

S. 2195, the National Public Telecommunications Infrastructure Act of 1994, addresses many of the concerns that were raised by Secretary of Education Riley in his testimony on S. 1822. The legislation is intended to ensure that telecommunications networks that make use of public rights-of-way set aside a portion of their network capacity for noncommercial, educational and civic entities. S. 2195 would guarantee that the interest of the public is not left behind.

Many States, including South Carolina, have been making significant investments in technologies that will benefit their communities. The South Carolina Educational Television Network is a perfect example of how the educational possibilities of the information superhighway benefit South Carolina residents. The network provides telecommunications services to State agencies and citizens with cultural, educational, and civic information. With the assistance of designated capacity on public networks, services like these could be available to all citizens nationwide.

We have a number of witnesses here this morning. I am pleased to see that Henry Cauthen, a dedicated member of the public broadcasting community and one who has done much for the State of South Carolina, is a part of today's panel. I welcome all of you and look forward to your testimony.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you, Mr. Chairman. Dr. Monroe Price, a distinguished professor from the Benjamin N. Cardozo School of

Law is participating on our panel today and will provide some additional insight on these issues.

I also plan to meet with Senators Hollings and Danforth soon to discuss ways in which this bill might be incorporated in S. 1822, the Communications Act of 1994.

This morning we have a very distinguished panel of witnesses, and I would like to extend a very special welcome to the Honorable Carol Fukunaga, a State senator from my home State of Hawaii, and to Harry Cauthen, who is from Senator Hollings' home State of South Carolina. Representatives of the telecommunications industry, the FCC, and the administration were invited to testify at this morning's hearing, but due to various circumstances could not attend. I have invited them; however, to submit testimony for the hearing record.

Again, I thank the witnesses for their participation, and look forward to hearing their testimony. Our first witness will be the Honorable Carol Fukunaga of the Hawaii State Senate, who also chairs the communications committee of the State and Federal Assembly for the National Conference of State Legislatures. Senator Fukunaga, welcome.

STATEMENT OF HON. CAROL FUKUNAGA, HAWAII STATE SENATE; CHAIR, COMMUNICATIONS COMMITTEE, STATE AND FEDERAL ASSEMBLY FOR NATIONAL CONFERENCE OF STATE LEGISLATURES

Ms. FUKUNAGA. Good morning. This is a rare privilege and opportunity to appear before you, Senator Inouye. As you know, at the State level we have long been very interested in telecommunications concerns, particularly since Hawaii is so far and so distant from Washington, DC. And I really appreciate the opportunity to appear before you this morning.

I am here in my capacity as chair of the National Conference of State Legislatures Communications Committee, and you have my written testimony so I would like to highlight just a couple of points.

With respect to universal service issues, NCSL in particular supports the provisions of this bill wherein the FCC's allocation of public capacity shall be pursuant to telecommunications plans that are developed by State, local, or tribal governments. We believe that this provision is similar to some of the State delegation provisions on universal service in S. 1822, which is presently before this committee, and we do appreciate the acknowledgement in your bill that States are in often the best position to determine how best to meet the unique needs of individual regions and geographical areas.

Second, we commend you and your committee for your commitment to developing a very strong and vital public networking or civic networking component. Such applications that are provided through the public interest community as well as some of the public networking groups are vital to maximize public participation in shaping the NII, and we believe that they will allow for a real broad range of diverse views which will define the requirements of a new universal service standard in the future.

I would like to take perhaps just one or two moments to focus on one of the reasons why State and local governments are very in-

terested in this public rights-of-way approach. As you know, most of the State legislatures these days are faced with mounting pressures for providing better services, more cost-effective services, while at the same time we see shrinking tax revenue bases.

And drawing from some of the examples that I have provided in my testimony of our experience in Hawaii, I think it is particularly noteworthy that while we have had a number of telecommunications distance learning pilot successes, at the same time, as we estimate our costs for what it would take to provide these kinds of pilot services on a statewide basis we are staggered by the enormity of some of the transition costs in using this new technology.

So, at this time, although NCSL does not have a position with respect to public rights-of-way, we very strongly endorse the provision of different methods of providing public sector applications—particularly in State governments—the potential of being recipients of the infrastructure fund, as well as being one of the primary entities to be served through this public rights-of-way legislation.

[The prepared statement of Ms. Fukunaga follows:]

PREPARED STATEMENT OF STATE SENATOR CAROL FUKUNAGA

My name is Carol Fukunaga, Hawaii state senator and chair of the Communications Committee of the National Conference of State Legislature's (NCSL) State-Federal Assembly. I am also a member of the U.S. Advisory Council on the National Information Infrastructure (NII) and cochair its Mega-Project II on Universal Service. Thank you for the opportunity to comment on S. 2195, "The National Public Telecommunications Infrastructure Act of 1994."

NCSL is the bipartisan organization serving the nation's state and territorial legislatures and protecting the legislatures' ability to develop imaginative responses to their states' needs. We believe that the federal system works best when state governments are allowed to work as "policy laboratories" with broad flexibility to innovate and respond to the unique needs of their residents.

NCSL supports the provisions of Section 714(d)(3) in the bill, wherein the FCC's allocations of public capacity shall be pursuant to telecommunications plans developed by state, local or tribal governments. This type of approach is consistent with the approach proposed in S. 1822, a bill that you cosponsored earlier this year, Mr. Chairman, regarding universal service requirements at the local level. In that measure, each state would be delegated primary responsibility for defining universal service and establishing the implementation mechanisms in the first two years following passage of the bill. State delegation thereby assures that the unique circumstances of individual regions and populations can be factored into the universal service equation.

NCSL also commends you and your subcommittee for your commitment to development of a strong, vibrant "civic networking" or public rights-of-way component of the NII. While discussion at the national level has focused primarily on the NII's long-term benefits (like job creation and economic growth, reduced health care costs, lifelong learning) and government services—electronic commerce, education and telemedicine—this measure also speaks to the need to include broad-based civic networking applications as part of the NII's initial deployment.

Often we think that disseminating more government information through electronic means is the primary means of building a more open and participatory democracy. However, as we have seen in Hawaii—through the mix of extremely diverse programming produced through OLELO: The Corporation for Community Television, KHET and Hawaii Public Broadcasting Authority, ATTN/VIEWS and the various distance learning channels—it is often the exposure to a diversity of voices and viewpoints, whether Samoan, Filipino, Chinese, the religious right or the gay and lesbian community, that stimulates a much higher level of participatory democracy.

And why is participatory democracy so vital to the development of the NII? Without the involvement of the full range of viewpoints, voices, and cultural perspectives that make up America's constituencies, it will be almost impossible to achieve the goal of insuring that information resources are available to all at affordable prices. How will we know whether or not we will be successful eliminating the gap between

the information "haves" and "have nots" if we do not make the tools of the information superhighway available to as broad a range of civic and public uses as possible?

THE PUBLIC RIGHTS OF WAY APPROACH GIVES STATE AND LOCAL GOVERNMENTS A WIDER RANGE OF RESOURCES WITH WHICH TO PROVIDE SERVICES OVER THE NII

Central to the debate over "universal service" in the development of the NII is the question of how much it will cost to provide services that we now take for granted—from free public education, libraries and community centers to multilingual voting, health care advisories, tax filings and permit applications—by electronic rather than traditional means. Many of these government services are provided by state governments.

We at the state legislative level are as pressured as your typical American family trying to balance a checkbook: with too many unmet needs, we're constantly looking for ways to trim expenses, deliver better services at less cost, or find partners to help us leverage scarce tax dollars. Looking at how we can "transform" major state programs in health, education, public safety and other areas using technology is even more daunting.

For example, both the University of Hawaii and Department of Education (DOE) are struggling to maintain quality programs while seeing equipment, facilities maintenance and telecommunications networking costs growing exponentially. Within Hawaii's K-12 educational system, tremendous progress has been made in the use of distance learning technology: from providing one math program to 20 classroom sites statewide to providing more than a dozen programs to 500+ classrooms. Special "Training for Teachers" afternoon programs provide in-service training to thousands of teachers statewide, with viewer call-in evening programs providing urgent information on DOE and programs to the public via cable television. Hawaii's "KidScience" program was selected as the "Best K-12 Distance Learning Program" in the nation last year by the National Distance Learning Association.

Yes, these initial technology successes, and the excitement created among students, teachers and parents, only highlight the fact that fully equipping and training teachers and students to take full advantage of these new tools is probably beyond the reach of our current revenue projections: at least $250 million over the next five years is what it would cost just for DOE's facilities, curriculum development, teacher training, hardware/software and staff support alone. That amount, when measured against DOE's annual $850 million dollar budget, represents almost a 30 percent investment of new dollars that we do not have.

As such, identification of "state * * * governments and * * * their agencies, accredited educational institutions open to enrollment by the public, public telecommunications entities and public * * * libraries" as entities eligible for free access to the reserved public capacity, and among the potential recipients of the Public Telecommunications Infrastructure Fund is a welcome acknowledgement of the enormous transition costs state governments face in moving into electronic services delivery.

NCSL strongly endorses the examination of different methods of cost allocations between state, local, federal and private sector partners in providing public service applications on the NII. Although it presently has no position on whether allocations of public capacity and funding represent a better approach than one involving preferential rates, or technology grants from federal agencies, NCSL notes that any of these approaches (or combinations thereof) would provide states with considerable relief.

Recently, the National Telecommunications and Information Administration solicited grant applications for its first round of NII local planning and demonstration projects. Congress appropriated $26 million dollars in FY 94 for this initial competitive grant process—for which over 10,000 applications were requested, and more than 1,070 applications were submitted in May 1994. The total dollar amount requested in these applications (approximately half of which were for community information, K-12 education and higher education projects) is $562 million—with comparable matching funds being pledged by state and local governments. The fact that these applications were assembled in barely two months' time, and the size of the total request, easily demonstrates the potential breadth of resource needs that S. 2195 could begin to addresss.

OTHER STATE GOVERNMENT CONCERNS

Apart from the general observations offered in these remarks, there are a number of issues raised by the implementation provisions of S. 2195. A number of these issues may result from application of "reserved capacity" concepts to computer and telephony-oriented, switched broadband network environments; and will need clari-

fication vis-a-vis state governments, their agencies and their telecommunications networks.

a. Would state government-owned or operated networks be included in the definitions of "telecommunications network" provided in Section 714(a)(1)? How would educational networks be treated? Would they be subject to the 20 percent reserved capacity requirement? What kinds of network technologies would be encompassed by-the definition provided in Section 714(a)(1)?

For example, Hawaii's state government information network, HAWAIIAN, consists of two DS-3 microwave links (one between Oahu-Kauai; and one link between Oahu-Lanai-Maui-Hawaii) between Oahu and the various neighbor island state office building sites. The state's network is not a common carrier video platform, cable television network, or direct broadcast satellite system (DBS), which have been identified as types of networks included in the definition.

b. How broadly would the definition of "accredited educational institution" in Section 714(d)(1)(B) be read? Would the definition include an array of services including general education, baccalaureate and advanced degrees, technical and vocational training, continuing education for professionals and technicians provided and supported by integrated educational systems comprised of preschool-12th grade, community colleges and technical schools, four-year colleges and universities, post-baccalaureate degree-granting institutions, professional schools and continuing education programs (all supported by information made available through libraries)?

We believe S. 2195 provides an invaluable forum in which to raise these and other public sector and civic applications issues, and NCSL applauds your subcommittee's efforts to balance federal telecommunications goals with state and civic "rights-of-way" implementation concerns. Your subcommittee's deliberations will go a long way towards defining some of the key policy and funding issues that must be dealt with in the new "universal service" standards for the NII; and insure that the best features of the information superhighway will be available to all Americans.

Senator INOUYE. I thank you very much, Senator. As you know, some have argued that if the Government wants to ensure free access to public educational and noncommercial entities, that we should directly subsidize these services through tax revenues. What do you think about that?

Ms. FUKUNAGA. Well certainly, at this point I think that is something that we would have to look at very, very closely. In the State of Hawaii, we have examined the possibility of increasing general excise taxes to pay for some of the telecommunications infrastructure requirements.

Unfortunately, during times when States are going through perhaps recessionary economic difficulties, it is very hard to impose new taxes to pay for some of these new technologies. We have also looked at other alternatives such as imposing a surcharge on some of our cable and telephone services within the State of Hawaii. Again, these are different alternatives we have been considering.

This morning I would urge that States and the Federal Government continue to work closely together to find the best means of funding some of these new services at the public sector level.

Senator INOUYE. Hawaii, like few of the States, has already developed a system to serve educational services. You have the Hawaii Interactive Telecommunications System. Why is this bill necessary if you already have a system in operation?

Ms. FUKUNAGA. Well certainly, we do have some terrific distance learning applications that have done very, very well in the last few years. However, with the FCC's recent mandates for rate reductions, one of the things that has happened at the local level is that our distance learning applications are now being asked to pay for some of the services that are now being provided for free.

Consequently, because of the changes that are happening nationally, it looks as though the level of PEG programming revenues

that come to some of our local affiliates will be dropping. And the first area that States will be asked to pick up the difference in is going to be in the distance learning area.

Senator INOUYE. I thank you very much, Senator Fukunaga. I can assure you that your full statement will be made part of the record and that your views are most welcome here.

Ms. FUKUNAGA. Thanks very much, Mr. Chairman.

Senator INOUYE. Now may I call upon as a panel the president of the South Carolina Educational Television Network, Henry J. Cauthen; the president of the University of Maine at Augusta, ME, Dr. George P. Connick; the chairman of the Alliance for Community Media, Anthony T. Riddle; the director of the Communications Policy Project, the Benton Foundation, Andrew Blau; and professor of law at the Benjamin N. Cardozo School of Law, Yeshiva University of New York, Dr. Monroe E. Price.

I am certain some of you have noted the absence of members here, but today is one of the worst days we have had. There are, believe it or not, 14 hearings going on at the same time. Mr. Cauthen, you may be interested to know that Chairman Hollings has a hearing on appropriations at this very moment, so he sends his regrets to you, sir. So, may I call upon you first, sir?

STATEMENT OF HENRY J. CAUTHEN, PRESIDENT, SOUTH CAROLINA EDUCATIONAL TELEVISION NETWORK (SCETV)

Mr. CAUTHEN. Thank you, Chairman Inouye, I appreciate the opportunity to speak on behalf of public broadcasters from throughout the country as well as my home State network of South Carolina.

You know, Senator Hollings was Governor Hollings when our State network was created 35 years ago, and it was through his strong support that it came about. And were he here I would have wanted to thank him very much for the support he gave us then, and the support he has continued to give us through the years. And as you, I am sure, know, he is very aware of the importance of what educational and public broadcasting can do. And I just wanted to let him know through you that we are not going to let him down in South Carolina, and I hope we will not let the country down with what we can do with public broadcasting and with the emerging technologies.

The legislation that we are talking about today is critical if the information superhighway of the future is to serve the public interest. We call it the public right-of-way legislation, and the title reflects the fact that the new information highway will be constructed using public rights-of-way, including the radio frequencies' public streets, public easements, and many other already provided public resources.

We believe that every citizen is entitled as a matter of law and policy to benefit from the use of these public resources from which the commercial operators of this information superhighway will surely generate significant revenues. We propose that in return for the public's investment in these rights-of-way that a portion of the information highway be made available for instructional, educational, and informational services.

Let me briefly highlight some of the major points of the legislative proposal you are considering today. It requires the FCC to re-

serve up to 20 percent of the capacity of the information highways for public nonprofit informational, educational, and cultural programming and other services. The 20 percent, I would point out, is a benchmark to be applied by the FCC on a technology-by-technology basis. The FCC, however, has the flexibility first to reduce the capacity; then to return it for nonuse; and finally, to eliminate the obligation completely if it is to determined the technology is otherwise sufficiently open and accessible.

Without this legislation, however, we stand in real danger of being divided into a Nation of information haves and have-nots, which I think would be a disaster. Eligible under the legislation to use the public right-of-way are schools and libraries, State and local governments and certain nonprofit entities, and public broadcasting. And why public broadcasting? The answer is simple. To expand upon Congress' dream and investment of the past for public broadcasting by allowing us to extend the power of new technologies to our Nation's schools and ensure their availability to all Americans.

Many public broadcasters are currently limited to a single broadcast channel, and cannot distribute services provided through other technologies because they do not have the means to reach out over that last mile to homes and schools. Access to the distribution network that will make up the information superhighways would resolve the problem allowing them to distribute the wide range of educational services that will be available on Telstar 401 and other sources.

South Carolina ETV is perhaps an early model of what the information highway can mean to all States. South Carolina is a poor, relatively rural State, but has used technology extensively to make up for its lack of financial and other resources. For years we have been using an advanced multichannel cable and ITFS and broadcast television system in the classroom to provide learning resources that could not have been made available in any other way. So, it is not surprising that when our State took a hard look at the continuing educational inequities, increasing demands for service, and ever-diminishing resources that you so well are aware of, it was evident that a greatly expanded use of technology would be necessary if we as a State were to find solutions.

With funding from the general assembly we purchased a transponder on Telstar 401, increasing our channel capacity from 6 to more than 30 channels for the State of South Carolina. What does this mean for South Carolina? It means that every student in our State, regardless of his or her school's size, location, or funding level, will have access to every course available, as well as our State's best and brightest teachers. The system will also serve all State higher education institutions, State prisons, State agencies, and most hospitals and libraries. In short, it offers enormous possibilities in a State where equity in education has often seemed impossible.

Without access to the information highways of the future, however, most States will be unable to provide such services. It would be too expensive on the information highways as now being planned. We should not make these highways toll roads for those who need them most and can least afford them. As many people

have pointed out, this is an important time of change. It is clear we are entering a new age, the Information Age. For all too long, too many of our people have been unable to gain access to many of the important and sometimes essential resources our society has to offer.

In the future, full access to information resources will be the equalizer that will allow everybody to compete on an even field. It is increasingly important and ultimately essential that that happen. The decisions that are made now will have a profound effect on our country for generations to come. We have, for the first time in our history, an opportunity to provide true equity in educational opportunity, something we have never really been able to aspire to, but it is now just within our grasp. It would be a tragedy of enormous proportions if we let this opportunity slip through our fingers. We in educational and public broadcasting stand ready, Mr. Chairman, to work with the Congress to ensure that this does not happen.

And I appreciate the opportunity of speaking to the committee today.

[The prepared statement of Mr. Cauthen follows:]

PREPARED STATEMENT OF HENRY J. CAUTHEN

Thank you Mr. Chairman and members of the subcommittee. I am pleased to appear before you today as a representative of public broadcasters across the country and of my own state public broadcasting system, South Carolina Educational Television. SC ETV was, by the way, established more than 35 years ago under the leadership of our then-governor Ernest F. Hollings. We hope that he feels that we have been good stewards of the great trust he placed in us, and we know that we have benefited greatly from his consistent interest and support.

I would like to thank Chairman Inouye and this subcommittee for including public broadcasting in this hearing, and I am proud to be here advocating what I and my colleagues believe is the most important public education/public culture legislation since Congress passed the Public Broadcasting Act 27 years ago. I testify today on behalf of public broadcasters and their national representative, the Association of America's Public Television Stations.

The legislative proposal we are considering today, S. 2195, is critical if the information superhighways of the future are to serve the public interest. This legislation, which has been referred to as the public-right-of-way legislation, reflects the fact that the new information highways will be constructed using public rights-of-way, including radio frequencies, public streets, public easements and other valuable public resources. Accordingly, our citizens—faced with crime, community and economic divisiveness, unemployment, educational inequity, and competitive concerns—are entitled, as a matter of law and policy, to receive benefits back from the commercial operators of these super highways. We propose that one of these benefits should include making a portion of the superhighways available for instructional, educational, cultural and informational services to support the public in addressing these concerns.

Our future information superhighways will be facilitated and structured by this Congress. The matter of the public's access rights to such highways must be addressed now just as the scope, the vision, and the grand design of these roads are being developed. When our country has launched similar projects in the past, it has sought to assure the public's participation in their benefits. That's why our proposal should be considered at this time-as an indispensable part of the superhighway legislation.

As you can see, this proposal would reserve up to 20 percent of the capacity of information highways for public, non-profit, informational, educational and cultural programming and other services. It would assure that all citizens will continue to have free access to these services on all distribution technologies. Assuring this access will meet at least two important National Information Infrastructure policy goals announced recently by Vice President Gore: the goal of universal service in order to prevent our nation from splintering into the information "haves" and "have

nots" and the goal of providing open access to the information infrastructure by consumers and noncommercial service providers.

I'd like to stress that the 20 percent is a benchmark. The legislation provides the FCC with the flexibility to set a reduced or phased in amount depending on the technology. It is important to note that this legislation is intended to be a transitional measure to insure public access as new technologies evolve. Should telecommunication networks achieve their promise and become truly open and accessible such that technological and economic barriers to access have been eliminated, this legislation would permit the FCC to eliminate the reservation obligation.

The FCC would have the authority to allocate public right of way capacity to eligible entities for the purpose of providing noncommercial educational services to the public at no charge. The list of eligible entities is not limited to public broadcast stations. Instead, it includes schools, libraries, state and local government entities and nonprofit entities organized for the purpose of providing public access to noncommercial educational services.

The FCC is directed to make block grants of capacity to state and local government entities to make allocations to eligible entities on a local basis. This provision reflects the belief that telecommunications needs of the public are best filled on a state and local basis.

Since the technologies and services of the information highways will be evolving rapidly, the proposed legislation would leave it to the FCC and other sub-allocating entities to design, implement and, as circumstances warrant, further revise their allocation procedures.

It is important to understand that this type of access proposal is not new. It has deep roots in American culture and in the history of American education and public broadcasting. When the Federal government was engaged in distributing public lands, it allocated portions for "land grant colleges." My home state of South Carolina benefited greatly from this program with the establishment of both Clemson University and South Carolina State University.

When the government came to allocate radio and television frequencies for commercial broadcasting, it set aside certain channels for public radio and television stations. In fact, approximately 30 percent of television channels were reserved for public television—a precedent which makes a 20 percent proposal for a much broader range of users modest by comparison.

Why do public broadcasters need access to the information highway? The answer is simple—to expand upon Congress' dream for public broadcasting by utilizing the power of new technologies to reach our nation's schools and homes with noncommercial, educational services.

Thanks to Congress' investment, public television owns six fully digital KU band transponders on Telstar 401, the satellite launched in December by AT&T. This satellite, which incorporates the latest digital technology for video, voice and data, in combination with V-SAT equipment, will be capable of delivering a broad range of interactive educational services to local public broadcast stations for delivery to homes, schools and universities.

But public broadcasters face a serious problem in distributing these services over the last mile to homes and schools. Many stations are restricted to a single broadcast channel to distribute their services. With access to the distribution networks that will make up the information superhighways, we would have the ability to distribute the wide range of educational services that will be available on Telstar 401 to people nationwide, when and how they need them.

I am proud to say that South Carolina ETV has already "put the pedal to the metal" and is currently traveling at a high but safe speed on our on statewide information highway.

South Carolina is a poor, largely rural, but highly innovative state. For years, we have been using television in our classrooms to offer instructional resources to students and teachers. In addition, our teleconferencing center is the busiest in the nation, offering school districts, state agencies and local governments training and lifelong learning resources while saving the state millions of dollars in travel and lost productivity costs. So it is not surprising that when our state took a hard look at educational inequities, increasing demands for services and our ever-diminishing resources, technology surfaced as a possible solution. South Carolina ETV was ready for the challenge and began to construct our information highway.

With funding from the General Assembly, we purchased a transponder on Telstar 401, increasing our channel capacity from six to possibly as many as 40 channels. Private and public colleges and universities, recognizing the unlimited resources the highway offered, began laying their own asphalt, purchasing satellite dishes for their campuses with their own funds. The Department of Education applied for grants to purchase satellite dishes for grades K-12, linking schools across the state,

and as recently as June 2 of this year, the state General Assembly renewed their support for the highway, appropriating an additional two million dollars for distance learning.

What will the completion of the highway mean for South Carolina? It means that a student in our state, regardless of his or her school's location, size or funding level will have access to every course available, as well as our state's best and brightest teachers. It means that our school buildings will be used for basic skills, lifelong learning and tutoring programs long after the bell rings at three o'clock. It means that our elementary students will have access to foreign language classes even if their districts can't afford foreign language teachers, our middle schools will offer algebra and advanced level courses even if they only have two or three students who qualify, and our high school students will take college courses from the universities of their choice without ever leaving school grounds. In short, it gives local districts the flexibility needed to offer the kind of curriculum their parents and students demand and deserve and offers limited possibilities in a state where equity in education has often seemed impossible.

The highway's use in traditional classroom settings just barely scratches the surface of its potential use state, nation, and worldwide. We are delivering live, interactive seminars on early childhood education to Head Start teaching teams serving rural, migrant, Native American, and Alaskan village populations in the United States. A business channel offers information and training for corporations located in our state with an effort to expand our state's economic development. Training courses for everyone from teachers to police officers to foster parents to bus drivers save our state money, develop a more highly trained workforce and improve the quality of life for our citizenry. In addition, our highway makes it possible for us to access information, courses, and training from around the world. And our system's potential has no boundaries. Simply put, with no pun intended, the sky is the limit.

Direct access to the information highway would permit us to distribute these and other educational services to everyone, everywhere, at anytime. It would also permit states throughout the country, that do not have their own educational networks, to utilize existing networks to distribute the types of educational services available in South Carolina.

South Carolina ETV is not alone in its innovative use of technology. Public broadcasters across the country are developing exciting new applications for the information infrastructure.

- Today, PBS Online uses both satellite and ground-based networks to deliver lesson plans, course materials, program transcripts and video segments to schools in 20 states. With wider access to the information highways, these services can be expanded to provide a powerful interactive educational network that will link students, teachers and parents throughout the country.
- Today, WGBH in Boston offers the Diploma Connection, a partnership with local cable access outlets, to offer a GED course for more than 450,000 Boston-area residents who have not earned a high school diploma. The impact, if this course alone were distributed nationally, is staggering.
- Today, the Satellite Educational Resources Consortium, a partnership between producing stations, like South Carolina ETV, and departments of education, distributes interactive distance learning courses to 5,000 high school students in 28 states. These courses, which bring math, science and foreign language courses to rural and disadvantages schools, can and should be available nationwide.
- Today, national public radio uses various computer networks and bulletin boards, as well as CD-ROMS in libraries, to distribute its in.depth news and information services. These services should be guaranteed a place on our information highways.
- In the near-future, Mathline, a video, data and voice communication system devoted to improving the math achievement of American students, and Ready-To-Learn, an early childhood development service aimed at helping parents and childcare providers raise children who are ready to learn, will be available on Telstar 401 for distribution by local public broadcast stations. The availability of these and similar services to our nation's schools, childcare centers and homes must be assured.

Paying for the capacity to distribute these services is not an option. We should not make the information highway a toll road for those who need it most and can least afford it. Public broadcasting's scarce resources are already stretched just to maintain the universally available public broadcasting service that is our primary obligation to the American people. As broadband, interactive networks come on line, public broadcasters face the danger that the foundation of our support—Americans who can afford to pay for enhanced telecommunications services—will migrate to

those networks. As these networks become widely used, public broadcasting must have access to them not only to distribute a wider range of educational services, but also to maintain access to those viewers who support our universal program service.

Finally, public broadcasting has a demonstrated track record of technology and service innovation that should reassure Congress that a public right-of-way resource would be effectively used. We were the first to interconnect our network of over 300 television stations by satellite and the first to deliver stereo sound. We pioneered dosed captioning for the hearing impaired and second language audio channels. Among all broadcasting organizations, we have moved the fastest and the furthest toward digital transmission of its service. And our new satellite, Telstar 401, leads the field in technological innovation and enhancement of service opportunities for our viewers.

Public broadcasters are realizing Congress' goal of making public telecommunications services available to all Americans. But we need your continued support to make a whole new range of educational services available on the new information highways.

For over forty years, the Federal government has supported the public's access to educational and cultural programming. An immense amount of public and private resources have been invested in realizing Congress' goal of making public telecommunications services available to all Americans. As Congress lays the foundation for a new telecommunications system in our country, it should not abandon principles that have served the public well in the past and that promise to be even more important in the future.

Congress has already found that "all citizens of the United States [should] have access to public telecommunications services through all appropriate available telecommunications distribution technologies." Today Congress may, with little difficulty, realize this goal by reserving a public right-of-way on the information highway.

Tomorrow, without public intervention, the highway will be constructed and dedicated to commercial uses. We believe that if technology legislation is enacted, unaccompanied by a public right-of-way, this country will have tragically missed a once-in-a-lifetime opportunity to assure that the highway will be harnessed to serve the educational, informational and cultural needs of our people.

Senator INOUYE. Thank you very much, Mr. Cauthen. I will convey your good wishes to Senator Hollings. I would like to go through the panel first before we ask questions, so, if I may, I would now like to call on President Connick.

STATEMENT OF DR. GEORGE P. CONNICK, PRESIDENT, UNIVERSITY OF MAINE AT AUGUSTA

Dr. CONNICK. Thank you, Senator. Chairman Inouye and members of the subcommittee, I am here to represent the Instructional Telecommunications Council and the Commission on Information Technologies of the National Association of State Universities and Land-Grant Colleges. This testimony is also endorsed by other national higher education and library associations, including the American Council on Education and the American Library Association.

On behalf of the higher education community, I commend you for your vision. We fully support the concept of a reserved set-aside on the information superhighway for educational institutions, libraries, and other public service users. It is vital to the future of higher education that these communities receive guaranteed access to the information superhighway. We agree with Secretary Riley's statement to the Commerce, Science, and Transportation Committee on May 25 that, "educational institutions, large and small, school libraries, literacy centers, early childhood centers, community colleges, and universities should have access and usage of advanced telecommunications services."

S. 2195 is consistent with other Federal Government telecommunications set-asides for purposes such as the public education and Government channels on cable systems, and FCC spectrum reservations for noncommercial television and radio, and for ITFS. The benefits the Nation has received as a result of these set-asides is well known and beyond question. Spectrum set-asides work, and our experience in Maine, reserving ITFS frequencies for noncommercial educational uses, is a clear demonstration of that fact.

Maine can also serve as a model for how others can serve their communities, States, regions, and the country if public right-of-way and other accommodations are made available to the public sector on the NII. The University of Maine's statewide ITFS system has been able to significantly expand educational opportunities to all of our citizens.

The education network of Maine was created by the University of Maine system in 1989 to provide educational access for people who are geographically isolated from campuses or who do not have access locally to the type of degree program or training which they need. The network consists of a multichannel, statewide, university fiber optic ITFS system which reaches over 100 locations, including islands off the coast of Maine.

To ignore the advantages we gain from these technologies would not only waste the public resources that have helped our colleges and universities build their telecommunications systems, but it would deny students, workers, and adult learners the educational opportunities they can only access through distance learning. We understand from your remarks in introducing the bill that the intent of S. 2195 is to reserve capacity for public use where it is appropriate for the technology.

Frequency or channel allocation have long histories and are sharply defined, but cannot be applied in the same manner to digital broadband packet systems. It may be more appropriate to identify alternatives such as preferential rates, guaranteed rates, or other mechanisms to meet public needs for access for these areas. We also understand that it is not your intent to include the Internet or NSFNET in the definition of "telecommunications networks" in this legislation. It is our recommendation that you clarify the statutory language to also exclude noncommercial networks such as networks of schools or nonprofit organizations, higher education, and educational institutions, libraries, and library agencies from that definition.

At this time we are in the opening stages of planning what services will be offered on the NII and who will be able to gain access. The Federal Government must ensure that colleges can continue offering classes in order to upgrade worker skills and improve the adult literacy rate and promote an educated public. In this way, institutions of higher education can extend educational opportunities to all Americans, regardless of their location, economic status, age, or disability.

Meanwhile, the NSFNET and the total assembly of networks, both national and international, that comprise the Internet have become a crucial tool to enhance instructional and research productivity. These new network information services have been devel-

oped in an innovative and unregulated environment which has fostered cooperative efforts. Higher education institutions, like most organizations, are under a great deal of pressure to increase productivity and reduce costs. Greater public access to the information superhighway will promote more efficient learning and resource sharing.

Thus, it is important that all levels of education are included in this and other legislation pertaining to the NII. Education must be seen as a continuum, K–12 through postsecondary. Moreover, as technology provides a seamless web of opportunities, students at all levels will have access to curriculum most appropriate to their intellectual needs and interests, and we must support that opportunity. To hinder this trend would be both wasteful and detrimental to many communities.

Basically, our position comes down to the fact that our colleges and other public institutions do not have the resources to outbid private industry for channels on the information superhighway. Guaranteed access to communications networks, whether it is used as a means for community college teachers to transmit courseware to students at a distance or as a way for university research scientists to reach online data bases and libraries, is of crucial importance to our educational institutions.

There is a precedent for providing guaranteed set-asides for public use of information systems. And as our experience in Maine shows, the NII could be an indispensable tool that can help our Nation more efficiently deal with the challenges of promoting an educated public, providing ongoing workforce retraining, and helping research universities pursue valuable research and development projects that will help our Nation keeps its leading technological edge into the next century.

Thank you very much for providing this opportunity to testify.

[The prepared statement of Dr. Connick follows:]

PREPARED STATEMENT OF DR. GEORGE CONNICK

Chairman Inouye and members of the Subcommittee, my name is George Connick and I am the president of the University of Maine at Augusta. I am here to represent the Instructional Telecommunications Council and the Commission on Information Technologies of the National Association of State Universities and Land-Grant Colleges. This testimony is also endorsed by other national higher education and library associations, including the American Council on Education and the American Library Association.[1]

On behalf of the higher education community, I commend you for your vision. We fully support the concept of a reserve set aside on the information superhighway for education institutions, libraries and other public service users. It is vital to the future of higher education that these communities receive guaranteed access to the information superhighway. We agree with Secretary Riley's statement to the Commerce, Science and Transportation Committee on May 25 that "[e]ducational institutions, large and small—schools libraries, literacy centers, early childhood centers, community colleges and universities—should have access and usage of [advanced telecommunications] services."

S. 2195 is consistent with other federal government telecommunications set asides for purposes such as the public, education and government (PEG) channels on cable systems and FCC spectrum reservations for noncommercial television and radio,

[1] This testimony is endorsed by the following national associations: American Association of Community Colleges, American Association of State Colleges and Universities, American Council on Education, American Library Association, Association of Research Libraries, Council for the Advancement and Support of Education, National Association of State Universities and Land-Grant Colleges, National University Continuing Education Association.

and for ITFS. The benefits the nation has received as a result of these set asides is well known and beyond question. Spectrum set asides work and our experience in Maine, reserving ITFS frequencies for noncommercial education uses, is a clear demonstration of that fact Maine can also serve as a model for how others can serve their communities, states, region and the country if public right-of-way and other accommodations are made available to the public sector on the NII. The University of Maine's statewide ITFS system has been able to significantly expand educational opportunities to all of our citizens.

The Educational Network of Maine (ENM) was created by the University of Maine system in 1989 to provide educational access for people who are geographically isolated from campuses or who do not have access to the type of degree program or training which they need. The Network consists of a multi-channel, statewide, University ITFS system which reaches over 100 locations, including islands off the coast of Maine. The instructional television system is primarily one-way video (although the seven campuses have two-way video) and two-way audio using auto-dialing phones connected by 800 service.

In addition to instructional television, all Network locations are connected by computer and fax machines and the University System on-line network called URSUS. People living on the island of North Haven (an hour ferry ride off the coast of Maine), for example, have access to approximately 65 live university courses, four technical college courses, four hours per day of courses and teacher training for high schools, interactive meetings and access to the library resources of the university system and, indeed, the world through URSUS and its connection to on-line library catalogs in all 50 states and 12 foreign countries. These same services are available to every location across the state.

Currently, the university system offers five, full associate degrees at a distance and one masters degree. This fall, a second masters degree in library science will be imported to Maine from another state. An extended baccalaureate degree, to be offered at a distance, is in the final stages of planning and is scheduled to be offered in the fall of 1995. Currently, there are over 3,500 students taking Network courses for credit each semester and over 25,000 people use the Network for non-credit courses, training programs and meetings.

The number of student enrollments in Maine's ITV system increased 55 percent when one compares the fall semesters of 1989 to 1993. This a trend that is echoed across the country. The majority of our students are working adults. They cannot attend classes in a traditional setting because they live too far away from our seven campuses, but can easily travel to our more than eighty receive sites located at high schools, community colleges, universities and community centers across the state. Other students work during regular classroom hours, or they have to stay close to home because they cannot afford childcare or have physical disabilities. To ignore the advantages we can gain from these technologies would not only waste the public resources that have helped our colleges and universities build their telecommunications systems, but it would deny students, workers and adult learners the educational opportunities they can only access through distance learning.

We understand from your remarks in introducing the bill that the intent of S. 2195 is to reserve capacity for public use where it is appropriate for the technology. Frequency or channel allocation have long histories, and are sharply defined, but cannot be applied in the same manner to digital broadband packet systems. It may be more appropriate to identify alternatives such as preferential rates, guaranteed rates or other mechanisms to meet public needs for access for these arenas. We also understand that it is not your intent to include the Internet or NSFNET in the definition of "telecommunications networks" in this legislation. It is our recommendation that you clarify the statutory language to also exclude non-commercial networks such as networks of schools or non-profit organizations, higher education and educational institutions, libraries and library agencies from that definition.

HIGHER EDUCATION AND THE TRANSITION TO THE NII

I would like to provide a brief picture of the significant role the NH can play with regard to higher education. The trend across the country is that education is becoming less place-bound and time-specific, and more user friendly. We should look toward using the new technologies so students can learn on an on-going basis—whether that is from the home or workplace—on an as-needed basis. Labor Secretary Robert Reich has often referred to the fact that today's work environment demands continual worker retraining—for employees who do not have the time or luxury of attending traditional on-campus courses. The NII is a perfect and efficient medium for life-long learning.

At this time we are in the opening stages of planning what services will be offered on the NII and who will be able to gain access. The federal government must ensure that colleges can continue offering classes in order to upgrade worker skills, improve the adult literacy rate and promote an educated public. In this way, institutions of higher education can extend educational opportunities to all Americans, regardless of their location, economic status, age or disability.

Meanwhile, the NSFNET and the total assembly of networks, both national and international, that comprise the Internet, have become a crucial tool to enhance instructional and research productivity. It is estimated that our nation's campuses have invested at least one billion dollars to build their own infrastructure to support the use of networks. They have invested in personal computers for instruction and communications, installed campus networks, and have formed regional alliances so students, faculty and research scientists can easily "talk" on-line with their colleagues, libraries and research institutions to further the pursuit of learning. These new network information services have been developed in an innovative and unregulated environment which has fostered cooperative efforts.

Higher education institutions, like most organizations, are under a great deal of pressure to increase productivity and reduce costs. Greater public access to the information superhighway will promote more efficient learning and resource sharing. Thus, it is important that all levels of education are included in this and other legislation pertaining to the NII. Education must be seen as a continuum, K-12 through postsecondary. This is essential for many reasons, not the least of which is that much of the academic enrichment and in-service training material used by K-12 schools are produced by higher education and transmitted throughout a state, region or the nation by any number of telecommunications technologies. In many districts, both rural and urban, communications technologies are serving as a means for educational institutions at all levels, libraries, and other public entities to cut cost by sharing the resources they produce. Similarly, most of the job-site training and worker retraining, that is and will be provided to the U.S. workforce, is produced and delivered by higher education electronically. To hinder this trend would be both wasteful and detrimental to many communities.

In May, my colleague Elaine Albright, dean of cultural affairs and libraries at the University of Maine in Orono testified before the Senate Committee on Commerce, Science and Transportation. She pointed out that the University is extending library services to our "location-independent community college" of Maine. Many of these sites are in small public libraries or local high schools. Already these campuses are being linked together through communications technologies which allow toll-free access to the state-wide network. As Dean Albright made clear, the library system can serve as one more mechanism to "provide equitable public access to [library] services and could (and many are) serve as sites for access to the NII."

CONCLUSION

Basically, our position comes down to the fact that our colleges and other public institutions do not have the resources to outbid private industry for channels on the information superhighway. Guaranteed access to communications networks—whether it is used as a means for community college teachers to transmit courseware to students at a distance, or as a way for university research scientists to reach on-line databases and libraries—is of crucial importance to our educational institutions.

There is a precedent for providing guaranteed set-asides for public use of information systems. And as our experience in Maine shows, the NII could be an indispensable tool that can help our nation more efficiently deal with the challenges of promoting an educated public, providing on-going workforce retraining, and helping research universities pursue valuable research and development projects that will help our nation keep its leading chronological edge into the next century.

As Secretary Riley testified last month on S. 1822, "it will be absolutely impossible to educate the coming generation of young people to high standards of excellence—if their access and use of the MI is seen as a secondary consideration to broad based commercial purposes * * * [The NII] is an essential tool for achieving the National Education Goals, and an integral part of our future education system. * * * Providing free usage, or usage that is at least as inexpensive as possible, is the right way to go."

Thank you for providing me the opportunity to testify on this legislation. I look forward to working with you and welcome any questions or comments you might have.

Senator INOUYE. President Connick, on behalf of the committee I thank you for your fine testimony. May I now call upon Chairman Riddle.

STATEMENT OF ANTHONY T. RIDDLE, CHAIRMAN, ALLIANCE FOR COMMUNITY MEDIA; EXECUTIVE DIRECTOR, MINNEAPOLIS TELECOMMUNICATIONS NETWORK

Mr. RIDDLE. Thank you, Mr. Chairman. Thank you for the opportunity for appearing before this committee, and I would like to thank you very much for having this legislation for us to speak on.

I represent the Alliance for Community Media, which is a membership organization that represents the 3,000 or so public educational and government access facilities in the United States. We currently have about 1.2 million volunteers per year, producing more than 20,000 hours of programming per week, more than all the broadcasters in the Nation combined. We have taught a whole generation of people how to use technology in order to better express themselves, to create a sense of community, and to be able to educate their youth.

We have come to support this bill wholeheartedly. We think that it fills a gap that was obvious in the legislation that is both on the House side and on the Senate side. We also come with support from other organizations, including the National Association of Telecommunications Officers and Advisors, and the Minnesota Association of Cable Television Administrators. In addition, we will pass out to the committee a resolution adopted by the U.S. Conference of Mayors offering support for this bill, and we hope that the cities and the telecommunications officers will at some point have the opportunity to speak to this legislation.

Something kind of interesting happened this weekend too. I went to a June Teenth celebration. I do not know if you are familiar with June Teenth, but June 19 is the date upon which the slaves in Texas learned of the Emancipation Proclamation, approximately 2½ years after it was signed into law by President Lincoln. This means that for 2½ years children were born into slavery that should have been born free. It means that for 2½ years people who had toiled in slavery all their lives died in slavery when they should have had their last couple of years free. And it also meant that a great number of people gave another 2½ years of their lives and their economic effort to other people who, for economic reasons, chose to deny them the information that they needed to have control of their own lives.

And I think this is a dramatic representation of what is really at stake here. It is important that our system be market driven. It is obvious that this is the engine that drives the whole system. But it is also important that certain safeguards be put in place so that the people of this country can speak with each other, can talk over the issues of the day in an unmediated fashion to be able to get the information that they need to make the correct decisions.

We have been teaching, as I said, a whole generation of people from all communities how to speak for themselves, and giving them the means of doing so. We have helped African Americans and seniors and youth provide programming that did not exist elsewhere,

as well as diverse language communities such as the Spanish, Vietnamese, Farsi, and Portuguese.

In Chicago, over 2,000 nonprofit groups from HIV–AIDS education groups to school reform organizations have used access channels. There are 8,000 nonprofits in Chicago, 85 to 90 percent of which have budgets under $100,000. Schools, libraries, hospitals, and nonprofit service organizations use community channels across the country.

In Austin, TX, community groups and individuals provide volunteer and staff efforts valued at 10 times the access centers budget. The Minneapolis Telecommunications Network, of which I am the executive director, annually serves over 100 community groups, trains 500 residents a year, and provides 20,000 hours of editing time, as well as gavel-to-gavel political debate, on a budget of less than the cost of a 15-second spot during the Super Bowl.

We think that there is a great deal of efficiency built into the system. We believe that the superhighway is not something that is coming in the future, but is something that is here, and we think that PEG is a good example of how these allocations may take place. So, we hope that you will continue to use the cities and to some degree the States, to allocate both the funding and the channel capacity on the new systems.

[The prepared statement of Mr. Riddle follows:]

PREPARED STATEMENT OF ANTHONY RIDDLE

I am Anthony Riddle, Chair of the Alliance for Community Media, a national membership organization representing 3,000 public, educational and governmental ("PEG") cable television access centers and the 1.2 million volunteers who provide public, educational and governmental access television across the United States. I am the Executive Director of the Minneapolis Telecommunications Network. At MTN we program 13 channels, serve over 100 community service organizations, provide 20,000 hours of editing time, have 4,000 days of equipment checkout, provide gavel.to-gavel coverage of most political debates, and teach nearly 500 community producers. And we do all that on an annual budget which is less-than what it takes to produce one week of All My Children.

On behalf of the many community groups and individuals who use PEG channels each week to produce over 20,000 hours of new programs, more than the output of all broadcasters combined, I want to thank the Subcommittee for the opportunity to speak today.

Specifically, I want to thank Chairman Inouye for introducing S. 2195, which recognizes the need for all Americans to be able to send and receive information over all telecommunications systems. This need was brought home to me this weekend when I was watching a report on Juneteenth celebrations on the news. Juneteenth is a celebration of African-American emancipation which originated in Texas.

It is a celebration of the day, June 19, 1865, on which the slaves found out that President Lincoln had issued the Emancipation Proclamation freeing them two and a half years before. It took two and a half years for the news to filter down to them. In this time, children were born into slavery who should have been born free. Some who had toiled their entire lives died slaves when they should have died free.

As the announcer noted: "They were just too far down the information chain." This is a stunning example of what happens when your access to information is controlled by others who have a financial interest in what you know and when. This is antithetical to a freedom-loving people. As we face a new communications environment, it is important that Congress preserve and expand the availability for community use of all communications technology.

DECENTRALIZED, COMMUNITY MEDIA: CHANGING AND BUILDING COMMUNITIES

I speak to you today as Chair of a national organization of members who have decentralized television in an unprecedented manner. Across the nation, community media centers put television in the hands of the people, not just as passive consumers but also as information providers; and in communities with adequate resources,

the response has been tremendous. More than one million people have learned how to make television programs that serve the needs of their groups and themselves. By learning all aspects of television productions, they are able to speak for themselves, without a filter or gatekeeper.

Through live, interactive television, and through interface with local computer networks, access centers are taking the next step in providing community dialogue with today's technology. As new technologies develop, with the assistance of S. 2195, the Alliance looks forward to expanding the methods and the geographic areas in which community dialogue travels.

CONGRESS RECOGNIZES THE IMPORTANCE OF INFORMATION PROVIDERS IN A PLURALISTIC SOCIETY

Congress has traditionally recognized the need to encourage and facilitate the development and delivery of public telecommunications services. Specifically, it has recognized the importance of ensuring that all Americans have access to these services. Through the community service provisions of the 1984 Cable Act, Congress intended to promote diversity by guaranteeing that groups traditionally ignored by mass media would have the opportunity to speak via cable. It has in fact created those opportunities. African-American programming, programs in Spanish, Vietnamese, Farsi, Portuguese, and a wide range of political opinion programs fill PEG access channels. These channels and centers have fostered localism in communications, another goal of Congress, with programs as diverse and rich as are our local neighborhoods.

In his keynote address to the Alliance's 1993 National Convention this past July, the honorable Andrew J. Young, former United Nations Ambassador and former mayor of Atlanta spoke of the importance of access:

> * * * we see the public access movement as a continuation of the dream and the vision of the Civil Rights movement, and the human rights movement generally. What we were marching for was to get a hearing. Martin [Luther King] used to always quote Victor Hugo who said that, "Violence is the language of the unheard." When people explode in violence it is because they have been ignored, because they have been isolated, because they're frustrated that they have no access. We had to march for access, and marching just three or four blocks * * * normally got us thrown in jail. People brought out police dogs, people put fire hoses on us. We had to basically risk our lives just to say, "Wait a minute, we can't vote! We're not trying to burn anything down. We don't want to destroy the country. We just want the same citizenship rights and respect for our human dignity that is accorded to every other American citizen, and that ought to be accorded to every other person on the face of this small planet of ours." It was there that the dream of human rights was born that has swept across this planet. But that dream must be kept alive by some ongoing mechanism of communication.

PEG access is the most American of communications institutions, providing a free opportunity for all persons, regardless of race, creed, income, religion, or political ideology to express their opinions, share their cultures and improve their local communities. In an age of growing apathy and a lack of participation, groups using these channels stand tall in working to build their communities.

ALL HAVE THE OPPORTUNITY TO BE PROVIDERS

Perhaps the most powerful feature of the information superhighway is its ability to allow anyone to create and send information, and not just passively receive it. This allows citizens to interact better with each other and their government. It potentially can empower communities who feel misrepresented and over-looked. And it enables every person to participate as an equal, regardless of race or physical condition or geographic location. Yet there are many, possibly most, of our fellow citizens who will not be able to afford the connection, the transmission costs, and the special equipment needed.

If, in order to use the network, one needs a video camera, editing equipment and playback equipment, who will have access to it, even if the fiber link is built to every home? If, in order to take advantage of the network, one requires a computer, who will provide the computers to those who cannot afford them now? Many people expect that two segments of society will be created, the information-rich and the information-poor. I don't like that line very much because it seems to assume that only a minority—the poor—will lack full access to the network. Actually, depending on the way the network is designed, we consumers could end up paying for construction of an information highway that truly benefits the few, while excluding the vast majority of Americans. This suggests that from the start the network must be de-

signed so that its basic services include facilities, equipment and services required to make the information highway accessible to the entire community. We can do this simply—we already have a model. A section of the highway needs to be reserved like a public park for free use. Further, operating funds need to be available for community-based organizations like my own in Minneapolis to provide equipment, training and technical support. Community communications centers could help ensure that the benefits of the networks are universally available. One can imagine production centers adjacent to libraries, where a member of the community can produce a video, obtain access to the Internet, or participate long-distance in public meetings being held elsewhere in the community. It can be done; in fact, some access centers are already doing it.

Community media has made tremendous strides in communities when it has had the appropriate resources—channel capacity without charge and funding for equipment, training and outreach. Several visionary centers have launched into advanced services, showing us the possibilities for all Americans who are given access to emerging telecommunications systems.

An editorial in the Boston Globe that appeared on Human Rights Day, December 10, 1993, observed: "Everyone has the right to freedom of opinion and expression. Boston Neighborhood Network Television gives Boston residents and nonprofit institutions access to the airwaves through its own facilities and by providing training in the use of broadcasting equipment."

People who are informed and have the ability to shape their futures have unlimited abilities; they discuss issues, hammer out tough solutions, share rich and diverse cultural heritages, create inspired works of art, enjoy themselves and build stronger communities. If the American people are to continue to do all of this, we need meaningful access to the most powerful telecommunications systems of our day and to the emerging systems of tomorrow. We need this access preserved and expanded through the provisions of S. 2195.

THE PROMISE OF S. 2195

The opportunities for people to participate in economic, political, and cultural life depends on their ability to access and use communication and information services. Individuals need skills and tools to locate the communications pathways, information, and audiences in a timely fashion and in an appropriate form. Unequal access to communications resources leads to unequal advantages and, ultimately, to inequalities in social and economic opportunities.

S. 2195 provides vital communications opportunities to: nonprofit and community organizations using public, educational, and government access channels and centers; the public broadcasters; community radio broadcasters; state, local and tribal governments; schools; hospitals; and libraries through (1) dedicated, noncommercial capacity on the emerging telecommunications networks and, (2) funding to use that capacity. The bill accomplishes this without mandating large and expensive government programs which cannot gain public support. S. 2195 recognizes that America's greatest resource is its people.

S. 2195 recognizes the obstacles faced by non-commercial speakers. In particular, the Alliance agrees that there is a need for an outlet for the voiceless and powerless, and for resources for outreach and training in minority and underserved populations. The findings in S. 2195 recognize that:

- our democratic society will be improved by diverse viewpoints and perspectives;
- diverse populations need to be both providers and receivers of information;
- there is a need for government intervention; and
- there is a need for adequate resources to be provided.

The 20 year history of communities using PEG access demonstrates vividly one way in which these objectives have been met and continue to be met. In communities with resources, as I stated earlier, community use of PEG access channels has exploded. In such communities, over 20,000 hours of new programs is now produced each week—that's over one million hours of new programs a year. Let's look at how the findings of S. 2195 offer the promise of spreading this success to all communities, and let's look beyond the statistics to the real grass roots people already putting television to work for their groups and themselves.

IMPROVING OUR DEMOCRATIC SOCIETY THROUGH DIVERSE VIEWPOINTS AND PERSPECTIVES

Community channels have taken the characteristics of local C-SPANs across the nation, as local citizens have become more active in government through watching and participating in meetings, joining citizen committees and making direct contact to officials. Since the mid-1970's, a public access channel in Reading, Pennsylvania

has been operated as a fully interactive video and audio service from multiple sites throughout the region. People gather to discuss social security, city budgets, elections and other civic issues. Through the technology of split-screen TV, citizens can see and hear each other during the conversation. In Burlington, Vermont, Channel 17 provides live interactive coverage of numerous municipal meetings, press conferences, call-in programs for elected officials and exclusive election results coverage. Community TV in Knoxville, Tennessee programs an interactive bulletin board which links via computer to touch tone phones. Although the service was programmed primarily from 11 p.m. to 7 a.m., the bulletin board received over 250,000 calls during its first year. The most frequent category requested was job information—more than 22,000.

Alan Dachman, Executive Director of the Little City Foundation, the creator of Project VITAL (Video Induced Training And Learning), a unique video training program for people with mental retardation and developmental challenges has stated:

> We live in a country where the media are supposed to be for the people, especially the airwaves. And yet at tile same time, before access television, there were no grassroots opportunities, especially for people with mental retardation; they're as grassroots as it gets. If you take a look at what access is about—giving people opportunities—I can show you the least common denominator, the most segregated social group in our country, people with disabilities. And access empowered these folks to get out of institutions and get jobs and get apartments. And this is only the beginning.

The Little City Foundation spent $500,000 to launch Project VITAL. It currently has a staff of five people and an operating budget of more than $75,000. Project VITAL is being implemented in up to 20 access centers throughout the country.

DIVERSITY ON THE NETWORKS: INCLUDING ALL AMERICANS AS PROVIDERS AND RECEIVERS

Community media channels have served this purpose in cabled communities, both providing the outlets for speakers and the opportunity for others to listen. As Chairman Inouye highlighted in his remarks introducing S. 2195, entire communities benefit when nonprofit service organizations and their constituents gain access to a variety of communications media. The Chicago Chapter of the Black Nurses Association sends basic health care information to Chicago's 330,000 cabled homes, receives feedback and answers questions. Portland, Oregon seniors produce a series for local non-profits, public and community service agencies, giving a voice to those who are left out of the public view. And the South West Organizing Project in Albuquerque, New Mexico—a community based group that strives to empower the disenfranchised to realize racial and gender equality and social and economic justice—is committed to representing its own work rather than depending on the mass media to tell its stories.

THE NEED FOR GOVERNMENT INTERVENTION TO ENSURE UNIVERSAL SERVICE

The Alliance is concerned that to date the focus of discussion on universal service has been limited to wiring and providing instruments for all homes. While the ability to access the information highway is essential to the public interest, this ability alone does not make communications universally available in any real sense. The concept of universal service needs to incorporate some level of free training, access to equipment and technical support through local community communications centers. The Office of Technology Assessment agreed with this proposition when it stated:

> The question of promoting literacy in new communication technologies is inextricably intertwined with the question of socioeconomic factors and access to these technologies. But in a society where many will not be able to afford to buy technology for their homes, public-access facilities may be crucial to maintaining certain minimum levels of communication competence. When the telephone emerged in the early 1900's, one of the primary functions of public telephones was to allow people to learn to use them by watching others. Other public-access facilities—from schools to libraries—have traditionally provided a repository for the expertise, in both print and human form, to help promote communication or get information. * * * A new vision of the public-access facility, to help individuals cope with the complexities of information-age tools, is perhaps in order. "Critical Communications: Communications for the Future," The Office of Technology Assessment, 1990, page 232.

Universal service in the new interactive media should include PEG access services as found in the current cable television medium. We are pleased that the funding mechanism of S. 2195 would permit this. The expansion beyond current limitations

cannot be expected from commercial, for-profit media, and does not require large and expensive government programs which cannot gain public support. Two key provisions of S. 2195 would permit such expansion.

1. *Channel capacity on all networks*—Section 714(b) sets aside capacity on networks for use free of charge. Section (c)(1) presumes a reservation of up to 20 percent as appropriate. Section (d) defines a broad base of eligible public and non-profit entities, which would include PEG access centers.

2. *Infrastructure fund*—Non-commercial channels without funding will fail. Section (e) establishes a "Public Telecommunications Infrastructure Fund" based on contributions by the owners and operators of telecommunications networks. Sections (e)(2) (C) and (D) provide for the distribution of funds by State, local or tribal governments to the same groups eligible to use the channels.

We in the Alliance consider our first 20 years just a start. Community media has been limited by several factors which S. 2195 can change:

- only 20 percent of cable systems have community channels;
- cable franchising has provided inadequate community media resources in many areas; and
- cable TV, our primary outlet, currently reaches only 62 percent of American homes—vast areas of rural America are totally unserved.

For example, in 1987, the focus of the community outreach program for United Way in San Luis Obispo County, California was a weekly cable television series, "Good Neighbor Community Outreach." Produced entirely by volunteers, the program highlighted a different community agency each week and brought phone calls, visibility, and funds to the United Way. The idea for the program came from Dixie Adair Budke, executive director of Neighbors Helping Neighbors: "We have a lot going on in San Luis Obispo County—services that the people who have never had to link into the system wouldn't necessarily know about. We needed a vehicle to get that information across * * * because people do want to hear about good news * * * and it was certainly a need that hadn't been met through traditional media channels." "We're not professionals," she added. "We were very much amateurs, but it seemed to be okay because these were people that county members knew and trusted, and it was information they were hungry to know." The program ran successfully for one year but ended when the local cable operator closed its studio to community producers.

Arlington Community TV in Arlington, Virginia worked with County Government, Police and Fire, Emergency Communications, the Red Cross and other agencies on "Communicating Survival," a series of programs aimed at limited English proficient residents about vital public services. More than 2,900 tapes have been distributed to 33 states and countries. I think the Arlington example speaks to the need to connect communities to the broader network—a concept different from providing two-way communications within communities. Communities are, at the same time, unique and similar. Interconnection allows the same building between and among communities that two-way cabability promotes within communities. There are many communities like Arlington with large populations of people with limited English ability. The fact that Arlington had to send out approximately 2,900 tapes is testimony to the need to connect communities.

THE NEED FOR ADEQUATE RESOURCES

Communities need channel capacity and channels. Without funding, they will fail. In Chicago, the Universal Family Connection (UFC), a South Side service agency, uses the Chicago Access Network TV (CAN TV) bulletin board to recruit clients for their job training programs. Marcia Cloutier of UFC notes, "If you're not a big nonprofit with big name recognition, you can't get on mainstream TV. Public access has been fast, inexpensive and successful." The CAN TV message generated 295 calls to UFC, compared to 68 calls from all other sources. As a result, 175 people qualified for the UFC training and 50 got jobs. In addition, in Chicago there are over 8,000 nonprofits. 85-95 percent of them have budgets of under $100,000. Their work spans a broad range of service, from HW/MDS education to school reform. Historically, few of these groups have had access to television media because it is cost prohibitive, available to a select few, and dominated by commercial programming.

Boston's Answer Channel was created to link nonprofit service agencies to the people they serve. Live call-in programs on this project of the Boston Community Access and Programming Foundation now exceed 20 hours a week. Groups on the channel include Boston Foundation's Persistent Poverty Project, where parents discuss public education, and the Visiting Nurses Association, which covers topics including elder abuse, depression and flu shots.

Jeff Smith, Public Information Coordinator with St. Patrick Hospital in Missoula, Montana produced "Public Conversation," a seven week live call-in series on health care. Jeff says, I needed to communicate the depth of changes that are going to take place in health care, I know the health care community and I needed an extensive conversation—not just sound bites. People are so overwhelmed with messages, I needed to use several media, including Missoula Community Access TV."

COMMON THREADS IN COMMUNITY MEDIA PROGRAMS

Each of these groups of people and the programs they made to reach their communities shares several key characteristics. Community media centers empowered and enabled these people to make television work for them. In each case:

- community people who knew the issues the best had the opportunity to speak for themselves to their communities;
- public access channels were their only TV outlet, since their message could not sell commercials—the market system failed these groups; and
- massive volunteer effort of the community was the driving force in make the TV program a reality

TREMENDOUS VALUE IN COMMUNITIES

The modest resources—channels, services, facilities and equipment—provided through cable operators have served as "seed" money for tremendous participation by community groups and individuals. In Austin, Texas, community volunteer efforts are valued at ten times the access center's budget. Access centers have provided the resources which otherwise would have been outside the financial reach of most; communities have responded with massive amounts of volunteer effort. In Tucson, Arizona, the access organization provides services valued at $10.2 million, more than twelve times its budget. Access Sacramento provides services valued at $4.5 million, ten times its budget. These ratios are common for community-based access organizations.

Public access centers facilitate nonprofits' use of television media for public education, client recruitment, outreach, advocacy and other objectives. In Chicago over 2,000 nonprofit groups have used the access channels to communicate their messages. A number of jobs and training groups have said that the use of the access channel is their single most important recruitment mechanism. PEG channels introduce viewers to nonprofit services and community resources they never knew existed. A June, 1994 Chicago survey found that 92 percent of cable subscribers felt that the Chicago Access Network, or CAN TV, access channels were of value to the community. Respondents identified freedom of speech as the most important benefit, with 77 percent citing it as extremely or very important. Equal opportunity followed closely in importance. Over 60 percent cited additional benefits, including the local, noncommercial nature of CAN TV programs and the ability of residents to produce or provide her or his own programs and messages.

PEG programming is being watched. The National Clearinghouse for Community Cable Viewership Research at Western Michigan University correlated viewing patterns in 78 cable markets with nearly 2.7 million subscribers. That study shows that close to 40 percent of cable subscribers are tuning in to government meetings,[1] more than 37 percent watch local arts and entertainment programs, 36 percent view educational programs, 35 percent watch sports and 31 percent look to PEG access for health and wellness information.

CONCLUSION

The Alliance's mission statement is: In order for democracy to flourish, people must be active participants in their government, educated to think critically, and free to express themselves. The mission of the Alliance for Community Media is to advance democratic ideals by ensuring that people have access to electronic media, and by promoting effective communication through community uses of media.

Communication is a fundamental human right. Television and other electronic media are clearly the most powerful means of communicating in our age. The ability of a group or individual to maintain the basic right of effective communications is dependent on the ability to be an information provider as well as receiver. S. 2195 guarantees public access to advanced telecommunications networks. It promises

[1] Broadcasters have been providing less and less news and public affairs programming. A 1989 study published by Essential Information, "Short changing the Viewers: Broadcasters' Neglect of Public Interest Programming," found a 51 percent decrease since 1979 in the average percentage of issue-oriented public affairs programming between 6 a.m. and midnight on commercial television in the 50 television markets studied.

interconnectivity—citizens with governments, schools with libraries, health care providers with the sick, teachers with students and beyond. S. 2195 guarantees—in the spirit of the Juneteenth celebration—that all Americans regardless of race, income, or class will have access and the opportunity to fully participate in the information age and the 21st Century.

Thank you for the opportunity to speak today on S. 2195, and, more importantly, thank you for considering the importance of our local communities in the development of the national information infrastructure.

Senator INOUYE. Thank you very much, Chairman Riddle. May I now call upon Mr. Blau.

STATEMENT OF ANDREW BLAU, DIRECTOR, COMMUNICATIONS POLICY PROJECT, BENTON FOUNDATION

Mr. BLAU. Good morning, Sir.

Mr. Chairman, members of the committee, thank you for inviting me here today. I am the director of the Communications Policy Project at the Benton Foundation. The project is a nonpartisan foundation sponsored initiative to strengthen public interest efforts in communications policy. We seek to educate the public, and nonprofits in particular, about the critical issues in today's communications policy debates. Moreover, we have been working to develop public interest policy options that reflect what we see as the emerging industry structures and evolving technological trends.

I have submitted my written testimony for the record, so rather than repeat it here allow me to note some of its key points. I would like to begin by commending to your attention to this article that appeared on the front page of the New York Times this Monday under the heading: "Some cable systems are cutting C–SPAN for other channels." The article reports that, in part as a result of must-carry, "C–SPAN and its sister channel, C–SPAN II, have been cut back on cable systems serving more than 4 million households, and in some cases dropped altogether."

The article continues:

> What is surprising is the extent to which C–SPAN, the cable industry's contribution to public service, seems to have borne the brunt of the cuts. * * * Congressional officials and cable-industry analysts say C–SPAN has been hit hardest by the cuts because operators can make more money with channels offering Fantasy Island reruns or home shopping items like zirconium rings. * * * It is the least profitable, so it is the obvious one to go, Jessica Ref, a media analyst with Oppenheimer & Company, said.

Now, I am not picking on the cable industry, merely pointing out the fundamental pressures in a commercial system. So, it should come as no surprise that throughout our efforts over the last year working with groups across the country, one theme has been sounded repeatedly, and that is the need for policymakers to create noncommercial public rights-of-way or some similar mechanism, to ensure that the advanced networks that we are headed toward serve us with more than games, movies, and shopping.

Moreover, according to a recent bipartisan poll that was conducted for the foundation, the American public wants more. By overwhelming majorities, they support a strong Government role that asserts the importance of education, health, and community benefits in developing these new networks. The American public wants policymakers to enact programs and policies that will deliver those services.

I would like to ask to introduce the report, which documents this public support, into the record, if that would be appropriate.

Senator INOUYE. It will be made part of the record.

[The information referred to follows:]

WHAT PEOPLE THINK ABOUT NEW COMMUNICATIONS TECHNOLOGIES

Americans clearly want Government to have an active role in the emerging debate over new communications technologies. They want Government to be a leader in helping these technologies evolve, in ensuring universal access, and in keeping the public interest uses of the new communications technologies in the forefront. They also support a variety of actions on behalf of the public interest—from Government grants to corporate donations.

What the American public most desires from the new communications technologies are educational and informational services. People are not all that interested in 500-channel capabilities or in-home shopping. But they are very interested in interactive college courses and computer libraries.

A strong majority of Americans support Government's taking an active role in addressing issues of access, knowledge, and cost to make these services universal. One of the reasons is that they do not want to widen the gap between the haves and the have-nots. They also want to keep the public interest in this debate. And they want Government to help the technology evolve, to make sure that it is universally accessible and affordable, and to promote applications in education and health care.

Here are the findings of a telephone survey of 1,000 likely voters chosen at random to be representative of the American electorate:

- Government should provide grants to help communities and nonprofit groups make new technologies available in schools, libraries, and hospitals (77 percent support; 18 percent oppose).
- Government should require companies that profit from the new technologies to dedicate a part of their resources to supporting community uses and community access to Government information (76 percent support; 18 percent oppose).
- Government should support education programs that adults can use from home over a computer or two-way television—or that children can use to help them with their homework (70 percent support; 25 percent oppose).
- Government should ensure that a nationwide information system will be accessible to everyone in every part of the country (67 percent support; 26 percent oppose).
- Government should provide information to teach people about the new technologies and how to use them (64 percent support; 31 percent oppose).
- Government should set costs for services cheap enough for everyone to afford (56 percent support; 36 percent oppose).
- Government should not allow communications companies to raise subscriber rates today to enable them to invest in services for the future (58 percent oppose; 33 percent support).

Mr. BLAU. Thank you.

Mr. Chairman, I must commend you for your leadership in introducing a measure that puts the issue of public infrastructure and public benefit squarely on the table. While the foundation does not take positions for or against pending legislation, I want to speak this morning about the unique role that nonprofits play in delivering public-interest benefits and the need for policies that ensure that nonprofits have the opportunity to play a similar role in the Information Age.

If we look at the press releases and corporate videos, they describe a digital universe of enriched education, improved health care, effective social service, and widespread community participation, not to mention instant access to information, arts, and literature. But if that sunny scenario is to become a reality, we must first acknowledge the likeliest sources for those benefits; second, ensure that those sources have access to the network; and, third, create a means to support those efforts.

That means turning to America's nonprofits. They are our leading experts in education, health care, social service, and the other areas. Today there are just under 1 million tax-exempt voluntary and philanthropic organizations which together account for 10.4 percent of total U.S. employment. These organizations are our traditional means of dealing with a wide range of human needs that we have always acknowledged lie outside the bounds of the commercial marketplace: the health and education of our children, the fabric of local community, the ties of culture and history, and the vigor of our democracy.

If that legacy is to be carried into the Information Age, we must include nonprofits in the planning and the implementation of these advanced networks and we must make them part of the basic service, not an afterthought or a corrective to a commercial system that, quite predictably, fails to serve noncommercial values. We must acknowledge their special attributes. We must build policy that includes them from the outset.

But we must also acknowledge the constraints under which nonprofits deliver their services. While the nonprofit sector in the aggregate represents a substantial portion of the economy, especially in those key public service fields, most nonprofits are very small organizations. They have small budgets, and they depend on volunteers. In fact, over 70 percent of the country's 501(c)(3) organizations had total revenues below $25,000. Of the remaining 30 percent, the median annual expenses were just $157,000. And these figures do not reflect the full value of what they deliver because many nonprofits rely on volunteer efforts to further stretch their resources.

In light of these basic realities of how nonprofits function, we cannot assume that they can compete on fully commercial terms with the private sector. What works for QVC or HBO will not work for the PTA, the local hospital, or the League of Women Voters, yet these are the very institutions that must have access if we are to see the social benefits of advanced telecommunications.

Admittedly, as we have already heard this morning, setting communications policy to promote noncommercial speech is not a new idea. Policymakers have long recognized the need to balance marketplace forces with the Government's interest in encouraging diverse sources of noncommercial speech. Consider, for example, the postal system's lower nonprofit rates; reservations of radio spectrum for noncommercial and educational use; noncommercial television channels and the Corporation for Public Broadcasting, as well as the Public Telecommunications Facilities Program; the FCC's original rules to create noncommercial public access to cable television, as well as the access requirements that Congress codified in the Cable Communications Policy Act of 1984.

And while the telephone network, as a fully switched system, has never needed a set-aside per se, the traditional universal service programs at both the Federal and State levels acknowledge that access to essential communications networks is far too important to be determined by market forces alone. In addition, I might add that 12 States report reduced-rate tariffs for schools, charitable organizations, or religious institutions.

Without such measures which acknowledge the needs of noncommercial users, there is, frankly, no evidence that noncommercial public service would have any significant access even to today's communications systems. As a Commerce Department report noted in 1988, "the FCC action, to set aside frequencies, was crucial to allowing the growth of educational broadcasting stations." In those instances where commercial providers initially promised to provide for noncommercial needs such as education, our experience has been that without Government mandates those promises have often been forgotten in favor of those commercial pressures.

Perhaps that is not surprising. These providers are commercial firms pursuing commercial incentives. But the lesson we must draw is that we cannot rely on a purely private commercial marketplace to deliver inarguably noncommercial public benefits.

Let me conclude by saying that the American public is being asked to agree to a trade: the rewrite of U.S. communications policy in return for a great rush of public-interest benefits. But if we want those public-interest benefits, we must act now to create the noncommercial public spaces in which those services can flourish.

And we must act quickly, because the telephone, cable, wireless, and other companies are not only building networks, they are building expectations. Without the full range of nonprofit organizations as information and program providers, these expectations will be low. If, instead, we expect great public benefits from the networks of tomorrow, we must act accordingly and set policies that will make them possible. If nonprofits are guaranteed a place at the table to help shape these systems and their services, if they are given the support to use them effectively, the nonprofit sector will make good on the promise of enhanced public benefits in the Information Age.

Thank you very much, sir.

[The prepared statement of Mr. Blau follows:]

PREPARED STATEMENT OF ANDREW BLAU

Mr. Chairman, members of the Committee, thank you for inviting me here today. My name is Andrew Blau, and I am the Director of the Communications Policy Project at the Benton Foundation.

ABOUT THE COMMUNICATIONS POLICY PROJECT

The Policy Project is a nonpartisan, foundation-sponsored initiative to strengthen public interest efforts in communications policy. It is our belief that the concurrent pressures of digital convergence, industry mergers, and renewed interest in rewriting essential elements of U.S. telecommunications policy offer a once-in-a-generation opportunity to create public policy that shapes the emerging communications system to serve the public interest.

Benton's Communications Policy Project is founded upon the belief that the vigorous participation of the nonprofit sector in these debates will strengthen the prospect for public interest outcomes. To that end, we seek to educate the public, and nonprofits in particular, about the critical issues in today's communications policy debates. Moreover, we seek to develop policy options that reflect emerging industry structures and evolving technological trends, so that public interest advocates may speak effectively to where we are heading rather than simply look back to where we have been.

Within the last year, the Communications Policy Project has engaged in a host of activities that inform my testimony here today. Among other efforts, we:

• Organized "Shaping the National Information Infrastructure: The Public Interest Summit," a groundbreaking event that brought together almost 700 nonprofit leaders from across the country with key Administration officials including Vice-President Al Gore to discuss the public interest implications of the Administration's

National Information Infrastructure (NII) initiative. Participants included former Surgeon General Dr. C. Everett Koop, Ralph Nader, Mitchell Kapor (Chairman, Electronic Frontier Foundation), Raul Yzaguirre (President, National Council of La Raza), Morton Bahr (President, Communications Workers of America), and Peter Goldmark (President, The Rockefeller Foundation).

- Commissioned research on universal service, documenting the current problems in achieving universal telephone service today and developing proposals for supporting universal service in a competitive, multi-service environment. A one-day seminar we organized on these issues attracted nearly 200 policy analysts, FCC and NTIA staff, public interest activists, communications and computer industry executives, and nonprofit leaders from far beyond the traditional boundaries of telecommunications policy.
- Organized (with the Center for Policy Alternatives and the Center for Civic Networking) an invitational meeting for state and local officials, community networking experts, academics, nonprofit leaders and federal officials to create recommendations for how communications policy might support democratic participation at the state and local level.
- Conducted focus groups, reviewed recent studies, and conducted a nationwide poll to gauge American attitudes toward new communications technologies. The resulting research report by Melman Lazarus Lake was recently cited by Education Secretary Richard Riley in testimony before this Committee.
- Published an overview of industry test-bed sites, where telephone and cable companies are modeling the networks of the next century.
- Catalogued over 160 applications of telephone, computer or cable-based technologies that deliver health and education benefits to the home. The catalogue documents some of the potential public interest benefits of advanced infrastructure.
- Convened a series of meetings with Libraries for the Future to explore how to extend into the information age the principle of "public spaces" that have supported democratic participation, cultural exchange and a robust marketplace of ideas since this nation was founded. The meetings brought together many of the key stakeholders including representatives from library groups, public broadcasting, community media, civic networking and education to explore what would be needed to establish public spaces on the National Information Infrastructure.

THE NEED FOR PUBLIC INFRASTRUCTURE

Across these and other efforts, one theme has been sounded repeatedly: the need for policy makers to create noncommercial public "rights of way" or similar mechanisms to ensure that NII serves us with more than games, movies and home shopping. Moreover, according to a recent poll conducted for Benton, the American public wants more. By overwhelming majorities, they support a strong government role that asserts the importance of education, health and community benefits and that enacts programs and policies that will deliver those services.

However, much of the current telecommunications policy debate has focused on how to secure a robustly competitive environment for the telecommunications industries to build and operate an advanced network of networks. What has been missing is a parallel focus on those communications and information activities that will come from the nonprofit sector, and the specific requirements to ensure that nonprofits will be able to take their rightful place as information providers.

The introduction of S. 2195, "The National Public Telecommunications Infrastructure Act of 1994," marks a crucial and long-overdue acknowledgment that a fully developed "National Information Infrastructure" must include both commercial and noncommercial elements from the beginning if its true potential is to be realized. The nonprofit sector is a significant and growing part of our economy. It is a focal point for the delivery of public benefits and the civic culture upon which democratic participation depends.

Mr. Chairman, I must commend you for your leadership in introducing a measure that puts the issue of "public infrastructure"—and public benefits—squarely on the table. While the Benton Foundation does not take positions for or against pending legislation, I am here this morning to speak to the unique role that nonprofits play in delivering public interest benefits to the American people and the need for policies that ensure that nonprofits will have the opportunity to play a similar role and advance in the information age.

NONPROFITS: THE ENGINES OF SOCIAL BENEFIT

The press releases and corporate videos coming out of telephone and cable companies describe a digital universe where advanced telecommunications delivers enriched education, improved health care, effective social service, and widespread com-

munity participation, not to mention instant access to information, arts, and literature. Yet one of the most underdeveloped components in today's telecommunications policy debates is how to ensure that those benefits will, in fact, be delivered once the "information superhighway" is built.

If the optimistic scenario we hear about so often is to become reality, we must we must first acknowledge the likeliest sources for these benefits; second, ensure that they will have access to the advanced networks that will carry the services; and third, create a means to support their efforts.

America's nonprofits are our leading experts in education, health care, social service, the arts and humanities, and community participation, because they stand at the front lines of delivering these services every day. Indeed, nonprofits have been created specifically to serve the public and provide public benefits.

By legal definition, they must serve a public purpose and may not make and distribute profits. These characteristics have been codified in the U.S. Tax Code in recognition of the distinct role nonprofits play in the delivery of a wide range of socially valuable benefits.

Nonprofits are a uniquely American approach to providing those benefits. To an extent not seen anywhere else in the world, we have augmented the traditional poles of business and government with a third sector composed of charitable organizations that facilitate many functions that other countries have asked their governments to provide. Here we rely on nonprofits to deliver key social services. While nonprofits may get some support from government, the vast majority of nonprofit funding comes from private sources.

As a result, we have created a system that takes many social services off government ledgers and into a private, noncommercial sector. By so doing, we deliver a remarkable array of services at a minimal cost to taxpayers. While the total revenues for the nonprofit sector (excluding religious congregations) were $416.4 billion in 1990, just 7.1 percent came from government grants, while the rest came from private donors and program service revenue.[1] Thus, for every dollar the government put toward these services, nonprofits attracted an additional $13 from other sources.

Today, there are just under one million tax-exempt voluntary and philanthropic organizations such as schools, hospitals, social service organizations, civic, social, and fraternal organizations, advocacy groups, arts and cultural organizations, foundations and religious institutions. According to the most recent figures available, the nonprofit sector accounts for 10.4 percent of total U.S. employment.[2] Among the nonreligious organizations in this sector, 36.6 percent provide human services, 20.4 percent provide health care services, 13.6 percent deliver education, 11.4 percent provide arts, culture or humanities services, and 8.7 percent deliver other public benefits, such as civil rights work, community improvement efforts, public affairs information, and scientific information.[3] Charitable organizations overwhelmingly provide service to clients at the local and regional levels. Almost 40 percent of these organizations report that they provide local service, while 43 percent serve multicounty, statewide and multi-state areas.[4]

In sum, nonprofits are our traditional means of dealing with a wide range of human needs that we have long acknowledged lie outside the boundaries of the commercial marketplace: the health and education of our children; the fabric of local community, knit together through private voluntary associations; the ties of culture and history that link people across generations; and the vigor of our democracy, animated by civic associations, advocates and citizen groups. These services get delivered thanks to a legal and policy structure that acknowledges the special role that nonprofits play in education, health, culture, communities, and our democracy.

If that legacy is to be carried into the information age, we must include nonprofits in the planning and implementation of the NII and make them part of "basic" service, not an afterthought or corrective to a commercial system that predictably fails to serve public interest values. We must acknowledge their special attributes and unique contributions, and build policy that includes the nonprofit sector from the outset.

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[1] Hodgkinson, Virginia A., Murray S. Weitzman, Stephen M. Moga, & Heather A. Gorski, A Portrait of the Independent Sector: The Activities and Finances of Charitable Organizations (Washington, D.C.: Independent Sector), 1993, pp. 26-27, Table 9 (hereinafter, Portrait).

[2] Independent Sector, Highlights and Summary Data from The Nonprofit Almanac 1992-1993: Dimensions of the Independent Sector (Washington, D.C.: Independent Sector), 1993, pp. 1-2. The Nonprofit Almanac 1 992-1993 . Dimensions of the Independent Sector (San Francisco: Jossey-Bass), 1992 (hereinafter, Highlights).

[3] Portrait, pp. 9-10.

[4] Ibid., pp. 19-20.

NONPROFITS AND TOMORROW'S INFORMATION INFRASTRUCTURE

Many of the services that nonprofits provide today are in the very areas that could be revolutionized by the application of telecommunications technology. As noted above, nonprofits are concentrated in areas such as human services, health care, education, arts, and humanities, and they deliver other public benefits, such as civil rights work, community improvement efforts, public affairs and scientific information. These are the very areas where futurists and industry promotions suggest that advanced networks can provide direct benefits to the public.[5] And through experiments across the country, the potential is becoming clearer: nonprofit activities can be enhanced through communication and information technology.

NTIA's new grant fund, the Telecommunications and Information Infrastructure Applications Program (TIIAP), offers a powerful indication of the potential that we can capture. As the members of this Subcommittee well know, the program will make $24 million dollars available in FY94 to nonprofit institutions, as well as state and local governments, to create telecommunications plans and to demonstrate applications in health, education, community service, and other public interest areas. Announced the first week of March, almost 1100 state and local governments and nonprofits submitted applications by the May 12 deadline, just over 60 days later. Applications came from all 50 states and the District of Columbia, and requested $556 million in assistance funds this year, over 20 times the amount available. There is clearly a pent-up demand from the very groups identified in S. 2195 to become active users and developers of the NII.

ACCOMMODATING THE NEEDS OF NONPROFITS

But if nonprofits are to take their rightful place in shaping tomorrow's information infrastructure, we must acknowledge the constraints under which they deliver their invaluable services and craft policy accordingly.

While the nonprofit sector in the aggregate represents a substantial portion of the economy, especially in the key public service fields, most nonprofits are small organizations with small budgets, who depend on volunteers to deliver their services. Excluding religious congregations, nonprofits had $416.4 billion in revenues in 1990 and $395.3 billion in expenses that year.[6] In particular, nonprofits in health care spent $227.5 billion; in education, $67.8 billion; in human services, $37.9 billion; and $13.4 billion in arts and culture.[7]

Yet many of these services were provided by small organizations. IRS filings from 1989 reveal that over 70 percent of the country's 501(c)(3) organizations had total revenues below $25,000. Of the remaining 30 percent, the median annual expenses were $157,000, with median assets of $158,000.[8]

These figures do not reflect the full value of what nonprofits deliver because many nonprofits rely on volunteer efforts to further stretch their resources. In 1989, 41 percent of total employment among nonprofits was volunteer time. Volunteers accounted for 74 percent of total employment in religious organizations, 67 percent of total employment in arts and cultural organizations, 62 percent of total employment in civic, social, and fraternal organizations, 43 percent in social and legal services, 22 percent in education, and 15 percent in health services.[9]

In light of these basic realities of how nonprofits function, we can not assume that they can compete on fully commercial terms with the private sector. What works for QVC will not work for the PTA, the local hospital, or the League of Women Voters, yet these are the very institutions that must have access if we are to see the social benefits of the NII.

CRAFTING COMMUNICATIONS POLICY TO PROMOTE NONCOMMERCIAL SPEECH

Communications policy has long acknowledged the special roles and needs of nonprofit, charitable and public institutions, as well as the need to balance pure marketplace forces with the government's compelling interest in encouraging diverse sources of noncommercial speech over communications networks of all kinds.[10]

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[5] See, for example, Bell Atlantic, Delivering the Promise: A Vision of Tomorrow's Communications Consumer (1989); Pacific Telephone, The Intelligent Network Task Force Report (1987); Holliday, C. and V. Junkman, "The Integrated Broadband Network—How Will It Evolve," Telephony, August 12, 1991, p. 28.

[6] Portrait, pp. 26-27, table 9; p. 38, table 13.

[7] Portrait, calculations based on Figure 45, p. 43.

[8] Highlights, p. 12.

[9] Nonprofit Almanac, p. 7.

[10] Compare, for example, U.S. Congress, Office of Technology Assessment, Critical Connections: Communication for the Future, OTA-CIT-407 (Washington, D.C.: U.S. Government Print-

• The postal system has a multipart rate structure with designated "nonprofit rates" (third class bulk). Nonprofit rates make a substantial difference in the ability of nonprofits to distribute information to their own members and the public at large.

• Reservations of radio spectrum for noncommercial and educational use have been discussed since before the FCC was created in 1934. In January, 1938, the FCC allocated channels for noncommercial educational radio, principally for AM. In 1945, 20 FM frequencies were allocated for noncommercial and educational users.[11]

• Specially designated noncommercial television channels were allocated as part of the original VHF/UHF allocations in 1952. Under the leadership of FCC Commissioner Frieda Hennock, 242 TV channels (80 VHF and 162 UHF) were reserved for noncommercial and educational use. As an influential Commerce Department report noted in 1988, "This FCC action, to set aside frequencies, was crucial to allowing the growth of educational broadcasting stations."[12]

• In 1967, Congress created the Corporation for Public Broadcasting to provide funds for program production for both public radio and public television, as well as stimulate the development of public broadcasting entities. Those efforts joined the Public Telecommunications Facilities Program, which, since its inception in 1963, has made approximately 2700 grants totalling $448 million to strengthen and support public broadcasting facilities. The commitment to public telecommunications has been updated and extended as recently as 1992, when Congress found that "it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies. * * *"[13]

• In 1972, the FCC adopted its first set of comprehensive rules to regulate the cable industry, including a requirement that all cable systems in the 100 largest television markets "shall maintain at least one specially designated, noncommercial public access channel available on a first-come, nondiscriminatory basis." In addition, the rules specified that the cable operator "shall maintain and have available for public use at least the minimal equipment and facilities necessary for the production of programming for such a channel."[14] Related access requirements were codified in the Cable Communications Policy Act of 1984 at Section 611.[15] Substantial and socially significant use of these channels is being made by nonprofits across the country.[16]

• Although the telephone network, as a fully switched system, has never had noncommercial channels set aside, the traditional universal service programs at both the Federal and state levels acknowledge that access to essential communications networks is too important to be determined by market forces alone. In addition, 12 states report reduced-rate tariffs for schools, charitable organizations or religious institutions.[17]

Without such measures, which acknowledge the needs of noncommercial users through reserved capacity, support mechanisms and/or preferential rates, there is no evidence that noncommercial public communications services would have any significant access to today's communications systems. In those instances where commercial providers initially promised to provide for noncommercial needs such as education, our experience has been that without government mandates, those promises have been forgotten in favor of commercial pressures. While perhaps not surprising inasmuch as these providers are commercial firms, the lesson must be that we can not rely on a purely private, commercial marketplace to deliver noncommercial public benefits.

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ing Office) 1990: "Government policy to encourage the creation and development of local community-based information has a history going back as far as the early postal service." p. 192.

[11] Ibid.

[12] Mitchell, Helena, "Public Broadcasting," in NTIA Telecom 2000: Charting the Course for a New Century, NTIA Special Publication 88-21 (Washington, D.C.: U.S. Department of Commerce) October 1988, p. 575.

[13] Cable Television Consumer Protection and Competition Act of 1992.

[14] Cable Television Report and Order on Rules and Regulations Relative to CATV Systems, 36 F.C.C.2d 141(1972). While these access rules were later struck down, the Court's rationale was that the Commission had exceeded its statutory authority, not that the underlying concept was unsound. *Midwest Video Corp.* v. *FCC*, 571 F.2d 1025 (8th Circuit, 1978), aff'd on other grounds, 440 U.S. 689, 1979.

[15] 47 U.S.C. 531.

[16] See, for example, Nicholson, Margie, Cable Access: Community Channels and Productions for Nonprofits (Washington, D.C.: Benton Foundation & Center for Strategic Communications) 1990.

[17] NARUC Compilation of Utility Regulatory Policy 1991-1992, p. 251, table 115 ("Reduced Telephone Rates for Non-Profit Organizations").

THE PUBLIC SUPPORTS DEDICATING RESOURCES FOR NONCOMMERCIAL USE

According to a recent nationwide poll conducted for the Benton Foundation, the American public, by a wide majority, supports government action to ensure that the industry turn back some of its resources to community use. In a poll of 1,000 likely voters jointly conducted by the Tarrance Group and Mellman Lazarus Lake, 76 percent of respondents support or strongly support the statement:

> Government should require companies that profit from the new [communications] technologies to dedicate part of their resources to supporting community uses and community access to government information.

Only 18 percent of respondents oppose the statement.[18]

Such a result suggests surprisingly strong support among the American public for a government mandate that ensures that a portion of the coming communications resources be made available for noncommercial, public use.

CONCLUSION

Mr. Chairman, the American public is being asked to agree to a trade: the rewrite of U.S. communications policy in return for a great rush of benefits, including easy access to improved health care services; enriched education for our children; a world-wide web of libraries that puts the world's latest information at our fingertips; faster access to government information and a wide range of government services; and electronically aided participation in local, state and national civic affairs.

But what if all we get are the movies, games and shopping, while the benefits for which we traded away 60 years of telecommunications regulation keep receding behind the horizon? We will have traded away a rich legacy of public interest principles in return for a digital mall.

And while there may be a bookstore, there is no library at the mall. There is no school or health care clinic there either. The mall is not even open for free political dialogue. The mall is a private sector initiative with private sector benefits of consumer choice and convenience. Yet we do not rely on mall to deliver K-12 education, health services, noncommercial access to information, or basic government services. If these—the true public interest benefits—are to be delivered, we must also act now to create the noncommercial, public spaces in which these services can flourish. We must build in the nonprofit sector to the planning and implementation of the next century's communications systems and support nonprofit efforts to provide noncommercial services.

It is imperative to act quickly, because the telephone, cable wireless and other companies are not only building networks, they are building expectations. Without the full range of nonprofit organizations as information and program providers, those expectations will be low. If instead, we expect great public benefits from the networks of tomorrow, we must act accordingly and set policies that will make them possible. If nonprofits are guaranteed a place at the table to help shape these systems and their services, and given the support to use them effectively, the nonprofit sector will make good on the promise of enhanced public benefits in the information age. Thank you.

Senator INOUYE. Thank you very much, Mr. Blau. As you may know by the bells, the Senate is in the process of having a rollcall vote, so we will have to excuse ourselves. When the subcommittee returns we will call upon Dr. Price to discuss a question that is very fundamental to this bill. Opponents have argued that the set-aside legislation violates the first and fifth amendments, and we would like to make certain that we are within the constitutional requirements. We will stand in recess for 10 minutes.

[A brief recess was taken.]

Senator INOUYE. Let us resume our hearing, and now may I call upon Professor Price.

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[18] Mellman Lazarus Lake, What People Think About New Communications Technologies, Communications Policy Briefing 2 (Washington, D.C.: Benton Foundation) 1994. The Briefing reports the results of a nationwide survey of 1 ,000 men and women. The survey was a telephone poll of likely voters chosen at random to represent the American electorate. Respondents were asked seven questions about the government's role in providing new communications technologies, as well as additional demographic questions. The survey results have a margin of error of plus or minus 3.1 percentage points.

STATEMENT OF DR. MONROE E. PRICE, PROFESSOR OF LAW, BENJAMIN N. CARDOZO SCHOOL OF LAW, YESHIVA UNIVERSITY

Dr. PRICE. Thank you very much, Senator Inouye. About 70 years ago, at the dawn of another media technology, before the passage of the Radio Act of 1926, there were visionaries in Congress who saw the responsibility of Government to consider the public uses of the new medium, and I quote a few of these pioneers in my written testimony, pioneers who said that the privilege of these vast systems that change communications should not be a right of selfishness but rather "an assurance of the public interest to be served."

This historic legislation, S. 2195, marks another important moment at the dawn of another communications era. For those Senators and Congressmen in the mid-1920's, uncertainty about technology and the social implications could have meant a paralysis of action, but it did not, and similarly today I think you have done something which is extremely important. You have not allowed the uncertainty about the shape of future technology to block public input.

S. 2195 strikes a balance. It shows a kind of flexibility by delegating to the FCC appropriately, but it also provides direction in the 20-percent reservation set-aside. It is legislation that sets forth a framework for a public role in the national information infrastructure, but it does it in a way that complements industry growth, allows for breathing, and for discretion in an administrative agency that can measure change in the communications environment.

In thinking about the constitutional questions, it is important to put all of this in context. Government, and the Federal Government particularly, has had a continuous and important part to play in ensuring and enlarging the machinery of debate, the flow of information, and the opportunity for fulfillment of individual rights.

Congress in this century saw its role as establishing an infrastructure for radio and television unique to the United States. It set aside spectrum frequency for educational entities, and over time built an impressive network of public radio and television stations.

The American communications industry turns to Congress to protect them against unfair competition, for incentives, and to ensure the capacity to compete in foreign markets. The American public turns to Congress to provide a fair and open system in which there is an opportunity, to the extent possible, for all to speak, and with luck to be heard.

The Communications Act of 1984, the 1984 act, the 1992 Cable Act, and other legislation employ democratic values to ensure that technologies of communication become technologies of freedom. The national public—and I am using a phrase of Ithiel de Sola Pool, a great communications scholar in that respect.

The National Public Telecommunications Infrastructure Act is a continuation of that tradition. The constitutional point is that Congress has been called upon to help in finding and shaping the building blocks of communication by industry, and now is called upon to establish the building blocks of democratic government. That is what this bill does.

Congress assisted cable television in obtaining fair access to copyrighted material and to the means for originally stringing cable. Congress has enabled program suppliers to have nondiscriminatory access to multichannel carriers. Congress had a substantial role in the design of spectrum allocation and its award among competing parties. These steps—and the NPTI is a further development of this role—are constructive of an enabling of speech, and has nothing to do with the history of censorship.

This act weaves its way through the complexities of the constitutional obstacles in an ingenious way. The two-step process that you have put into this bill of reserving space and then having it allocated by the FCC to State and local entities is an imaginative way of dealing with the problems presented to the courts, and presented to Congress in connection with the 1992 Cable Act, questions still to be resolved.

I think that notwithstanding the result in the *Turner Broadcasting System* case the legislation as drafted incorporates a substantial means of coping with the kinds of problems that were there presented through the reservation of these channels.

S. 2195 recognizes that basically physics determines what is in the inert wire, but it is law and social organization: the activity of the Congress of the State legislatures, of industry all working together that determines the architecture—not the content— of what goes into the wire and what goes out of the wire. The growth of communications in this country has been a cooperation between Government and industry, and S. 2195 is a further step in that direction.

I commend you for S. 2195, and it is an honor to be on this panel. Thank you.

[The prepared statement of Dr. Price follows:]

PREPARED STATEMENT OF MONROE E. PRICE

It is a pleasure to testify on the constitutionality of the proposed National Public Telecommunications Infrastructure Act.

The Act is important to democratic society, instrumental in the process of defining the architecture of communication for the twenty-first century. I am professor of law and director of the Howard Squadron Program on Law, Media and Society at the Benjamin N. Cardozo School of Law, Yeshiva University. For the last twenty-five years, I have written about broadcasting and telecommunications issues. I was Deputy Director of the Sloan Commission on Cable Communications and, in 1967, on the staff of the President's Task Force on Telecommunications Policy. In the early days of cable, I have written on the role of citizens in gaining access to the then-new media technologies.[1]

I shall comment on some technical constitutional questions appropriately asked about the NHIA, but first it is important to have a sense of the constitutional setting in which this Congress acts.

There's a romantic idea of the constitutional history of communications, debate and the press in the United States. That history—true in large part—is one in which 150 years of newspapers, with a tradition of immunity from government interference, is followed by a heady and rapidly changing set of new technologies, each of which suddenly calls into play state and local and federal intervention. But I see our history as one in which government (first local and then joined by the national government) had a continuous and important part to play in ensuring and enlarging

[1] Cable Television: A Guide for Citizen Action (Pilgrim Press 1972) (with J. Wicklein) also published in Italy as TV Cavo (Bompiani Press 1973) (sponsored by the Markle Foundation and the United Church of Christ to assist local public officials and community groups in understanding cable television).

the machinery of debate, the flow of information and the opportunity for fulfillment of individual rights.[2]

At the very foundation of American life, it was the town or village, acting through its government, that determined the existence of the town green, the place for a commons for debate and discussion. Government encouraged post roads and provided subsidies for newspapers that carried public information. Government was a necessary part of forging a nation out of a series of frontiers by enhancing communications and the exchange of ideas. Government ensured the establishment of roads to facilitate discourse among an otherwise disconnected people. Later, government had a role in knitting the country together through the encouragement of railroads, telegraphy, and telephony. Still later, the patterns by which airlines set their routes and interstate highways were mapped had extraordinary implications for communications and democracy. Even the history of government support for land grant colleges and the general encouragement of education is part of this process.

In that context, the government's participation in achieving a great and national system of broadcast licensees, first in radio and then television is understandable. Congress saw its role as building an infrastructure for radio and television that was unique to the United States, cognizant of regional differences, that assured competition, set aside spectrum frequency for educational entities and that, over time, built an impressive network of public radio and television stations. I have had the recent experience, as part of President Jimmy Carter's Commission on Radio and Television Policy in the former Soviet Union, to see how difficult it is to turn technologies of oppression and statism to technologies of freedom. In the United States, a constant Congressional purpose has been to ensure that these technologies serve public debate.

This historic Congressional role, encompassing so many instruments of communication, has as a common denominator the design of the infrastructure for a particularly American kind of freedom. This role, so far from being constitutionally suspect, is an essential and constructive part of American government. Its performance is essential to American political life and American democracy. Whatever mechanism was important for increasing discussion and debate and the spread of citizenship—the government had some role in ensuring its underpinning and success. All of this was part of a great partnership for democracy, a partnership among government, industry and the people.

The National Public Telecommunications Infrastructure Act is a continuation of that tradition.

The constitutional point is that Congress has been called upon to help in finding and shaping the building blocks of communication and democratic government. It has assisted cable television in obtaining fair access to copyrighted material and to the means, originally stringing cable. It has enabled program suppliers to have nondiscriminatory access to multichannel carriers. Congress has had a substantial role in the design of spectrum allocation and its award among competing parties. These steps—and the NPTIA is a further development of this role—is constructive of and enabling of speech and has virtually nothing to do with the history of censorship. The American communications industry turns to Congress to protect them against unfair foreign competition and to ensure foreign markets. The American public turns to Congress to provide a fair and open system in which there is opportunity, to the extent possible, for all to speak and, with luck, to be heard.

This does not mean that anything Congress does is free of constitutional doubt, and I would like to turn, briefly, to a few comments on the relationship between Congress and the Supreme Court. One risk of the First Amendment as new trump card, as the comprehensive definer of policy, is that jurisdiction and power over the architecture of the infrastructure shifts to the Supreme Court. One can look back at the history of radio and television regulation prior to the mid-1970's virtually in vain for a decision in which the Constitution was used to overturn Congressional legislation on first amendment grounds. Even now, almost all the cases which are cited and decided as limits on the power of the Congress to engage in the architecture of a democratic infrastructure involve state and not federal legislative action. The role of the Supreme Court with respect to these state and local decisions is different from the relationship of the Court to Congress.[3]

The Court must worry about the problems of a proliferation of different and varied regulatory approaches to communication, without the limiting federal frame-

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[2] Cass Sunstein, Democracy and the Problem of Free Speech (New York: The Free Press 1993).

[3] In *Linmark Associates Inc.* v. *Willingboro*, 431 U.S. 85 (1977), the Court struck town a local ordinance that banned for sale signs even though the township interest was in promoting a stable integrated neighborhood. A Congressional statute seeking the same objective would have had a far greater chance of being upheld.

work, and it therefore applies a different standard to decisions of entities that are not coordinate branches under our constitutional system. In a sense, the Court and Congress are faced with the same difficult problems of line-drawing; if one thinks of a variety of areas where the Court has struck down some and sustained other interventions by state and local governments in the structuring of opportunities for discourse, the outcome, the patchwork of resulting opportunities, often appears to look as much like the intricate distinctions of federal law as like principled constitutionalism.

More recently, the First Amendment has become, in the hands of the Court, a more predominant determinant of federal policy and the current dispute over must-carry rules is an example. Of course, the particular approach Congress must take, at any given time, does have to dovetail with current Supreme Court jurisprudence. Styles of legislation are thus informed by prevailing doctrine. The Court's ongoing debate over the test to be applied in addressing the constitutionality of legislation that affects communications systems will and should control the structure of legislation. The idea of strict scrutiny of content-based regulation and the definition of what constitutes content-based regulation is before the Court at this very moment, with a decision expected daily in *Turner Broadcasting*.

The last half century, and more, can be read as a long exercise in determining what the shape of federal regulation of the ever new telecommunications technology should be. That exercise-which includes the Communications Act of 1934 through the 1992 Cable Act, has been informed by a sense of democratic values inherent in what I have referred to earlier as the technologies of freedom, using the extraordinary phrase of Ithiel de Sola Pool. What was characteristic of this half century has been that it was largely Congress and the Commission, not the Supreme Court, that took the leadership in fashioning communications policy. That is the way it should be and the NPTIA is an example of such initiative.

The legislative history of radio provides insight into an early idea of the familiar Congressional concern with the infrastructure of discourse. Time and again, radio was conceived not as a mere medium of entertainment, not even as a linear extension of the newspaper, but something wholly new, a mechanical way to improve the nature of American democracy. The language of the public sphere early entered into the notion of public airwaves and public trust. In 1924, Herbert Hoover, then Secretary of Commerce, testifying before a Congressional committee, encapsulated this view:

> [I]t cannot be thought that any single person or groups shall ever have the right to determine what communication may be made to the American people * * * I am stating [this] as a general principle which must be dealt with as an assurance of public interest for all time. * * * Radio communication is not to be considered as merely a business carried on for private gain. It is a public concern impressed with the public trust and to be considered primarily from the standpoint of public interest to the same extent and upon the basis of the same general principles as our other public utilities.[4]

This oft-quoted paragraph has within it the idea of universal service, nondiscriminatory rates, evenness of access. The very idea of a utility is to assure fair distribution of an important asset as an element of a democratic society. The scarce commodity is not just spectrum, and the Act contemplates that ultimately even that may not be scarce but, rather, information and culture. To have said, as Hoover did, that radio is "a public concern impressed with the public trust" is to perceive the need for the public sphere. Congressman Johnson, stated what were, even then, general fears:

> There is no agency so fraught with possibilities for service of good or evil to the American people as the radio. * * * The power of the press will not be comparable to that of broadcasting stations when the industry is fully developed. * * * [I]t will only be a few years before these broadcasting stations, if operated by chain stations, will simultaneously * * * bring messages to the fireside of nearly every home in America. They can mold and crystallize sentiment as no agency in the past has been able to do. If the strong arm of the law does not prevent monopoly ownership and make discrimination by such stations illegal, American thought and politics will be largely at the mercy of those who operate these stations.[5]

Here, too, are harbingers of concern with the public sphere. Not only in terms of its anti-monopoly statement, but in the way in which radio is differentiated from "the press" in terms of its impact on the political system. These were astute politi-

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[4] See, Second Interim Report by the Office of Network Study, FCC Docket No. 12782, p. 114 (1965).

[5] 67 Cong. Rec. 5558 (1926).

cians; they could recognize, even at this early stage, that the nature of political debate could be altered without conscious impact on the social organization and management of radio. In the 1926 debates concerning the 1927 Radio Act, Congressman White stated:

> [T]he right of all our people to enjoy this means of communication can be preserved only by * * * the doctrine that the right of the public to service is superior to the right of any individual to use the ether * * * The recent radio conference * * * recognized that * * * licenses should be issued only to those stations whose operation would render a benefit to the public * * * If enacted into law, the broadcasting privilege will not be a right of selfishness. It will rest upon an assurance of public interest to be served.[6]

These are the roots for the NPTIA. These were the words of Members of Congress at the dawn of another communications technology. New communications technologies, massive and expensive, have always depended on government subsidy, favorable regulation, special privileges and, often, protection from competition. There was nothing inherent in the airwaves or the inert wire or the optical fiber that dictated the social organization that accompanied it as the service is delivered. Physics controls what occurs in the wire. Law and social organization determines what occurs before and after. These elements of organization are open to public definition and legislation without "abridging freedom of speech."

It is also important that the Congress is acting dose to the moment of creation, rather than at some later point in the evolution of the technology. In the construction of the national television system, the reservation of channels for educational and noncommercial purposes was almost too late as the pattern of occupying frequencies, manufacturing sets and establishing viewing habits almost instantly came into place. If anything, the difficulties faced by public broadcasters in overcoming their UHF handicap, obtaining detente tuning, gaining a national structure through the Corporation for Public Broadcasting and the Public Broadcasting Service-all of these demonstrate the need for early planning.[7]

If anything, the change in emphasis in thinking about the relationship between access, equity and freedom in the communications media provides Congress with the kind of responsibility fulfilled by the NPTIA. Structural access—the kind included in the proposed legislation—is preferable to regulation that has a closer relationship to content. The Supreme Court has indicated that it would welcome a time "at some future date" when "Congress * * * may devise some kind of limited right of access that is both practicable and desirable * * *"[8] It was the hope of the Court that the coming of new technologies would aid in this process and that Congress would take advantage of that opportunity.

Some think of the common carrier model as the perfect mechanism for a free market society dedicated to unencumbered speech and access to modes of distribution of that speech. Multichannel-channel common carrier systems, the deus ex machina of the new technology, seem, but only seem, to avoid the need for government involvement. But common carriers do not guarantee equal access. It is only as a general common carrier model is modified, combined with features that seek to assure access (such as the Public Telecommunications Infrastructure Fund, free carriage for identified public entities and similar methods), that the benefits of the common carrier model become fully harmonious with a democratic society.

The legislation as drafted is an example of the evolved debate over the role of Congress in making distinctions that are not unconstitutionally content-related, establishing the conditions for the use of public resources and rights of way. The legislation must deal with two bodies of law: those concerned with regulation, property and rights of way, and those concerned with the First Amendment.

First, the findings are important; they underscore the goals that have been so elusive, but that have consistently interested Congress. They repeat the sustained role that public broadcasting has played in the national strategy for the enrichment of the citizenry. They emphasize the interrelationship among the institutions of democratic life: libraries, local governments, schools, cultural and related charitable institutions and the reliance of all of them on improved opportunities for communication. These findings articulate the potential for dangerous bottlenecks that would impede the use of the new media for enhanced access. They also expressly note the key pub-

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[6] 67 Cong. Rec. 5479 (1926).

[7] For a discussion of the need for early Congressional intervention with respect to cable, see Price, Requiem for the Wired Nation: Cable Rulemaking at the FCC, 61 Virginia L. Rev. 541 (1975).

[8] *Federal Communications Commission* v. *Midwest Video Co. et al.*, 440 U.S. 689, 704; 99 S. Ct 1435, 1443-44 (1979).

lic privilege that makes all of these networks possible: access to publicly owned spectrum and rights of way on public property.

Second, the bill is artfully drawn to weave its way through the obstacle course concerning content-neutrality distinctions in any regulatory pattern. When *Turner Broadcasting System, Inc.* v. *FCC* is decided by the United States Supreme Court, it is possible that the options before the Congress to achieve its legitimate purposes will be dearer.[9] The NPTIA is drafted to withstand constitutional objections that would arise from requiring "speakers" to carry certain kinds of speech and not others (so-called content-based distinctions). Here the statute is sensitive to objections raised in the three judge court in *Turner* and by Judge Jackson, sitting alone, in *Daniels Cablevision* v. *United States,* 835 F. Supp. 1; Nos. 92-2292 et al., 1993 U.S. Dist. LEXIS 12806 (D.D.C. Sept. 16, 1993).

The shoals here include those that distinguish between commercial and noncommercial speech, shoals that the Supreme Court Justices have had difficulty navigating themselves. Just last week in *City of Ladue et al.* v. *Gilleo,* 1994 U.S. Lexis 4448; 62 U.S.L.W. 4477 (1994), Justice Stevens, who had been a principal proponent of eliding the distinction between commercial and noncommercial speech, struck down a local ordinance that permitted "for sale" signs on residential premises but precluded signs with overt political messages.

Justice Stevens considered the site where the prohibited speech took place (at the appellant's home) and the personal nature of the expression the vital element. For Justice Stevens, the significance of the protected form of expression was that it was an "unusually cheap and convenient form of communication * * * especially for persons of modest means or limited mobility." *Ladue,* 1994 Lexis 4448. It was intriguing that Justice Stevens focused more on the operation of speech and discourse in society and the importance of opportunities for individual expression. If anything, Congress should consider itself challenged and empowered by the Court's approach in *Ladue.* The National Public Telecommunications Infrastructure Act creates an electronic equivalent of the house in *Ladue* and the capacity of citizens to hang a sign out for their neighbors: the goal here, too, is to create opportunities—close to the home—"unusually cheap and convenient" and "for persons of limited means and mobility."

Still, the complexity of legal doctrine is fearsome concerning any distinctions that can be construed to have a content basis. In *Cincinnati* v. *Discovery Network,* 1135. Ct. 1505, 123 L. Ed. 2d 99 (1993), the Supreme Court invalidated Cincinnati's schedule of ordinances which permitted thousands of newsracks for "newspapers" but prohibited these local devices for predominantly commercial publications. Judge Thomas Penfield Jackson, in*Daniels Cablevision,* upheld federal authorization of required cable channels for public, education and government channels because "affording speakers with lesser market appeal access to the nation's most pervasive video distribution technology [and] [e]nabling a broad range of speakers to reach a television audience that otherwise would never hear them is an appropriate goal and legitimate exercise of federal legislative power." I would argue that the provisions of the NPIA meet this standard. In this sense, in the convoluted language of content-neutrality, they seem to serve a regulatory goal unrelated to content, a goal that represents a compelling government interest, and they do not burden substantially more speech than necessary to serve these interests.[10]

The concern-necessary at this point because of the uncertainty of Supreme Court doctrine on content neutrality-accounts for the careful two step process in the legislation: 1) providing, in exchange for the expanded use of a public right of way, for the reservation of capacity for public uses that would not be under any further control of the owner or operator of that capacity; and 2) providing, then, under regulations promulgated by the Commission, for the allocation of use of the channels to eligible entities, with such allocation under the aegis of state and local governmental entities. This is a kind of belt and suspenders approach and, as I have mentioned, the announcement of *Turner* may mean that one or another of the guarantees may not be constitutionally required (though the elegance of the solution may still be desirable).

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[9] It is my view, expressed in a recent law review article, Rewiring the First Amendment: Meaning, Content and Public Broadcasting, 12 Cardozo Arts and Entertainment law Journal, 499 (with Donald Hawthorne), that those distinctions drawn in the statute—providing reserved space for public broadcasting, educational and other civic entities—is probably constitutional, even as a process to be administered by the operator of the telecommunications network.

[10] Because, in a switched or supercharged system, channels will be abundant, it is possible to argue that the speech of others will not be burdened at all. Of course, the argument from that kind of abundance might suggest that this legislation is not necessary. But the nature of the system, as I state below, is sufficiently in doubt, that the protection of the legislative mantle, at this point, is warranted.

There is a rich body of law that deals with the extent to which governments can regulate users of public rights of way. I know that the Committee wishes to know more about this area, but it is not a major area of my expertise. A law professor at Boalt Hall, at the University of California, recently wrote of the case law in the area that "it is difficult to imagine a body of case law in greater doctrinal and conceptual disarray."[11] The issue of the power of government is, however, clearer where a) the objects of regulation are users of existing utility rights of way and b) additional benefits or uses of those rights of way are to be exploited or there is a regulatory need to change the nature of those rights of way. I know that various participants in this process will provide detailed analyses of the legal issues.[12]

The second step in the two-pronged approach of the NPTIA—an approach to avoid the hazards of imposing a content-based distinction on private uses—is the government's administration of the now-public and reserved channel capacity. Here, the legislation moves from the constitutional rubric of Discovery Network to a more familiar area of operation: the allocation of resources by the government and the making of legitimate and rational distinctions in doing so. The importance of adding "instructional, educational, and cultural" voices to the public sphere was recognized by Congress as a basis for creating the Corporation for Public Broadcasting and its discretion as a mechanism for funding public broadcasting. The Supreme Court has upheld federal rules that preferred designated category applicants for reserved spectrum capacity precisely because of the impact diverse ownership would have on democratic discourse.[13] The Court has upheld allocational preferences where the recipients were free to accept or reject conditions that have content-related distinctions. *Rust* v. *Sullivan,* 500 U.S. 173 (1991). These issues have arisen, as well, in cases testing the grant giving of processes of such government entities as the National Endowment for the Arts.[14] Discretion in the government is greater where, as here, the concerned entity (as, for example, the telecommunications network) is not "forced either to appear to agree with," disagree, "or to respond." *Pacific Gas & Electric Co.* v. *Public Utilities Commission,* 475 U.S. 1, 155 (1986). Finally, a preference for the kind of educational and civic programming is best classified as subject-matter rather than viewpoint based in its nature. Even without the reservation approach in the NPTA, some cases suggest that subject-matter distinctions should be accorded a lower level of scrutiny than viewpoint-based distinctions. See, e.g., *Lehman* v. *City of Shaker Heights,* 418 U.S. 298 (1974).

The proposed National Public Telecommunications Infrastructure Act shows a sensitivity to the fact, constitutionally important, that no one, not the cyberpunks, not the hackers, not the investment bankers, not the jurists, know exactly what the National Telecommunications Infrastructure will look like. As a consequence, some flexibility is necessary in determining how the National Public Telecommunications Infrastructure should be designed. Uncertainty could produce an inability to proceed and should not produce public paralysis. Allowing the infrastructure to develop with no indication of any Congressional determination as to the kind of access that would be required may lead to constitutional problems in the future. This legislation has the boldness of acting, but the flexibility of delegation. Furthermore, the legislation anticipates the possibility that—at some wonderful future date—capacity will be so great and bottlenecks so few that access provides no problem. In that case, the Commission, for those systems where such curative abundance is characteristic, has the power to suspend any access requirements.

Furthermore, the statute is as finely tailored as possible, given the uncertainty of the situation; undoubtedly, more sculpting will take place in light of the outcome

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[11] Andrea L. Peterson, "The Takings Clause: In Search of Underlying Principles Part I-A Critique of Current Takings Clause Doctrine," 77 Calif. L. Rev. 1301, 1303 (1989).

[12] In *American Satellite Co.* v. *United States,* 26 Cl. Ct. 146, 1992, rev'd on other grounds, Fed. Cir. July 7, 1993, the Administrator of NASA altered the contractual right of private parties to use the transport facilities of space satellites after a Presidential proclamation changing the nature of potential uses. In *Presault* v. *United States,* 27 Fed. Cl. 69 (1992), the federal claims court upheld the power of Congress to alter the nature of a railroad right of way to permit trails, not rails, and to secure the right of way from abandonment. What is at issue here is the power of the federal government and the nature of the holder's justifiable expectation. In *FCC* v. *Beach Communications Inc.,* 113 S. Ct. 2096 (1993), the Supreme Court upheld jurisdiction over SMATV systems even if they did not cross public rights of way. Acknowledged as almost an a fortiori argument would be the susceptibility of such entities to altered expectations if they, in fact, used a public easement. As to the question of the adequacy of compensation, that poses less of an obstacle than one might expect. Given the nature of the system, it is hardly clear that the injury or value surrendered is considerable. Congressional action here may, indeed, make these telecommunication network systems more comprehensively available, more necessary and the objects of greater demand.

[13] *Metro Broadcasting* v. *FCC,* 497 U.S. 547 (1990).

[14] *Advocates for the Arts* v. *Thompson,* 532 F.2d 792 (1st Cir. 1976).

of *Turner*. Recognizing the possibility for various outcomes that might affect the goals of the legislation, the Act provides for future transition measures. The Commission is permitted to reduce or eliminate the reservation of capacity, a "windowshade" that can descend on the legislation if the abundance of available channels makes the allocable space for public communications unnecessary.

The entities entitled to the allocation of reserved space under the Act are the very sort that have been traditionally been mandated to carry on government's historic responsibility, in the broadest sense, to educate the citizenry. As the court recognized on an historic occasion, "education is perhaps the most important function of state and local governments," with its importance recognized by "compulsory school attendance laws and the great expenditures for education."[15] The historic centrality of education to government's mission and the democratic enterprise suggests that the Congress acts constitutionally when it organizes the reservation of capacity in these public rights of way for such educational and speech supporting activities. As Cass Sunstein has recently written:

> Sometimes constitutional doctrine seems to have lost sight of the point of central constitutional commitments. Sometimes the commitment to free speech seems like an abstraction insufficiently * * * connected with democratic goals, or indeed with any clearly describable set of governing aspirations.[16]

The NPTIA is connected with democratic goals and meets the other tests of the Supreme Court. It is constitutional.

Senator INOUYE. Professor Price, thank you very much. I would like to begin with you, sir. Is it your view that we will be able to withstand any challenge based upon the first and fifth amendment?

Dr. PRICE. Yes. Let me speak to the first amendment question. I think that this act differs very substantially from the 1992 Cable Act. The 1992 Cable Act placed obligations directly on cable operators. This act is more like spectrum allocation provisions, in which there is a reservation of capacity which is then allocated by the FCC, and I think that is an ingenious way of avoiding the first amendment obstacles that may or may not exist in the 1992 Cable Act.

Senator INOUYE. Thank you very much, sir.

As I think all of us have concluded, the major thrust in the opposition movement would be to the 20 percent set-aside. I would like to ask questions to all of you.

First, would you consider the 20 percent to be an appropriate number? Admittedly, we must say that there is nonscientific basis on the part of the subcommittee to come forth with a 20-percent number. Second, those who question this have suggested that the percentage is so high that it would slow down or in fact delay the construction of the information superhighway. Third, it would be too heavy a burden for ratepayers to pick up. Fourth, they suggest that it should be subsidized by tax revenues accordingly. I would like to have your thoughts on this.

Mr. CAUTHEN. Well, Senator, the structure as we see it in the bill makes provision for the FCC to control the amount of resources that are made available based on experience after we find out what the capability of the system is. If we do not need 20 percent, they can back off of that, but 20 percent at least in my estimation is a benchmark. A statement saying we must set aside a significant part of this highway for the public good, and as far as slowing down the development of the highway, I do not think the highway should be developed that excludes the kind of needs that we are

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[15] *Brown* v. *Board of Education*, 347 U.S. 483, 493 (1954).

[16] Cass Sunstein, Words, Conduct, Caste, 60 U. Chi. L. Rev. 795, 797 (1993).

proposing to serve today. I do not believe it would stop it. It might slow it slightly, but it will not stop it.

Mr. RIDDLE. I would like to mention that I come from a cable system in which, depending upon which part of the system you are talking about, we have between 15 and 20 percent of the bandwidth allocated for public use, and it is only recently that the cable operator has started having enough program resources to be able to fill adequately the channel capacity that he has.

As far as slowing down the system, I do not think it would slow the system down, because if indeed there is such a great need for the bandwidth, I think it would actually encourage technology to be developed which would expand the capabilities of the system.

I think this is absolutely essential for the public sector that we not find ourselves content with a level of bandwidth that is available now, but that the industry be encouraged to expand the bandwidth so that these questions of how much should be assigned to the public use will eventually hopefully become irrelevant based on such capacity.

Senator INOUYE. President Connick.

Dr. CONNICK. Senator, we see three basic issues in Maine. One is the lack of capacity today for nonpublic or for public uses, second is the cost of obtaining capacity, and the third is really who is going to provide the content to go over the pipes that are built.

If the projections are correct that the capacity is going to increase in revolutionary terms, it would be our belief that the 20 percent will not be a major burden as these major networks are built, and therefore one of those problems, if not both, will be addressed as these mammoth networks are put in place. So, we do not see it as an undue burden.

Senator INOUYE. Thank you. Mr. Blau.

Mr. BLAU. In terms of whether the 20 percent is appropriate, I think it is quite in line with previous efforts by communications policymakers to set aside or make accommodations for noncommercial and educational uses. Whether or not it is the perfect number, I know that it is certainly in line with the kind of set-asides that were created for FM radio and the original allocation of the spectrum for VHF and UHF stations back in 1952.

Moreover, I think it raises a fundamental question what kind of communications environment do we want? When we get to the question, does this slow down something, well, what are we rushing into? We are being told we are rushing into a system with a great cornucopia of public benefits. If actually making sure we get those benefits slows us down, well maybe we ought to take a look at the trade that we are being asked to make. But, I do not think in fact it will slow it down.

Companies have made similar kinds of promises. As I understand the legislation it simply creates a mechanism that makes sure we get what we are being told we are going to get.

Senator INOUYE. Thank you, professor.

One of the reasons we used 20 percent was our concern for the fifth amendment. Obviously, if we went up to 80 percent it would be a fifth amendment taking. Would 20 percent be in the safe area?

Dr. PRICE. Well, I think that the question of what is confiscatory is an element in this issue of what constitutes a fifth amendment

problem. The basic point here is that there is a kind of quid pro quo that goes on in the negotiation over the use of public rights-of-way.

I think that a court looking at this would look at the proportionality, would look at the question of whether or not this is an undue or out-of-line kind of relationship to other negotiations over the use of public rights-of-way, and then look additionally at the source of congressional power, and at the findings in the legislation.

It seems to me pretty clear, looking at the history of the way in which public rights-of-way are negotiated and used, the 20 percent is probably not out of line.

Senator INOUYE. Coming back to the 20 percent issue once again. This is one question that has plagued us and we have no answer, and so we look to you for answers, or to other technicians. It is easy to determine 20 percent of a 100-channel cable network. How do we determine 20 percent of a digital network?

Dr. PRICE. I just want to say a word in addition to what I said in the last answer, and maybe it will lead to this, and that is that this is not a legislation that in a fixed way sets aside 20 percent.

I think it is important that 20 percent is a presumption not a rule. I think it is important that the FCC has the authority and jurisdiction to consider the way in which that ought to be implemented and the way in which capacity is administered by the telecommunications networks. I think the fact that this is a presumption also goes to the question of what "20 percent" mean?

The NII is, as I think we all see, an animal that is not yet capable of being described, so it is like saying what is 20 percent of something which is not yet fixed in nature. That is something that will require a continuing dialog and discussion between this committee, the Commission, and the industry.

There are a number of factors, including capacity, including pricing, including the way in which the use interconnects with the network, all of which will go to the definition of what constitutes capacity and what 20 percent evolves into, but I think what is important about the legislation definitionally and constitutionally is that it has flexibility.

The legislation sees as a role for the FCC the management of a "window shade" so that when capacity develops into a full digital network with an open architecture, the FCC has the authority and some direction to say that this kind of reservation no longer is necessary.

Senator INOUYE. I think you gave us your answer. Thank you. Does anyone disagree with that?

[No response.]

Senator INOUYE. Others have argued that many States—in fact, all States—have some degree of set-aside requirements. South Carolina started about 35 years ago. The State of Hawaii, in its infancy, has one that has been operating pretty well. Maine has a system that the university originated.

Because of this, they say it is not necessary. Any arguments?

Mr. CAUTHEN. Senator, speaking on behalf of South Carolina, which probably, at least at this moment, needs it the least of any State, looking down in the future, we know the needs are going to be so great. And this is an area where—I mean it is fine to compete

in football to be on the top of the rank, but we should not be competing on making the access to educational resources available on a competition basis for those who can afford it and those who cannot.

Right now, one of the great problems in education today is that those who need it most cannot afford it. So, South Carolina, through the wisdom of some good legislative leadership down through the years, have built a system, at some expense. But if you look around the country and see how many there are, they are not there. Uniformity in the use of available resources is not there.

And unless this sort of legislation is put in place, we are going to have a lot of communities, a lot of schools and a lot of States that are going to be well behind others. And I doubt that any will be able to fully reach the necessary resources that they could use to benefit the public.

If we are going to reach the Goal 2000, it is going to take some dramatic moves. This is the kind of move that can bring America to the forefront and make us not only equal to the rest of the industrialized world, but can let us lead the industrialized world. And if we turn our backs on this opportunity, we will have put our education system and our population behind for generations to come.

This, I think, is the most critical decision that this Congress may make in a long, long time.

Senator INOUYE. Dr. Connick.

Dr. CONNICK. Senator, we think we are really at the first-generation phase of the development of telecommunications for the use of the public sector. Telemediated instruction, we think, over the next 5 years, will change in revolutionary ways. We will really begin the basic restructuring of schools, as well as higher education, as a result of capacities which we have never had before.

So, it is very difficult to project how that is going to come out. But people have simply not had the access to these enormously powerful tools. And we have concentrated primarily, up to this point in time, at looking at the pipe—you know, what is the size of that pipe going to be that people have access to?

We have not concentrated at what is going to happen on either end of that pipe. And as the pipe becomes available, there are going to really be revolutionary changes. This kind of legislation is critical for that kind of movement. And I think there is going to be an explosion of change in education as a result of this. It is very important.

Senator INOUYE. Mr. Blau.

Mr. BLAU. Yes, sir. It seems to me that as we have seen in cable and I think will be seen more in the telephone model as well, there is some tension to be acknowledged between Federal regulation and State regulation with the coming of new technology. But I think it is very important that Federal policymakers create certain kinds of benchmarks—some basic standards that we should all be meeting.

In particular, if you look at the nonprofit sector, 40 percent of nonprofits provide service in very local areas. But 43 percent provide service in multicounty, State or even regional areas. What we need to do is to make sure that they have a certain kind of parity

across their region. We need a level playing field across the States to assure some sort of basic level of these public benefits.

So, I think that having those Federal parameters will be very helpful.

Senator INOUYE. Mr. Riddle.

Mr. RIDDLE. I would have to agree with Mr. Blau. It seems like most of the Federal legislation, both Markey's H.R. 3636 and Hollings' S. 1822, have in mind trying to eliminate some of the patchwork quality of the communications system. And so, to the degree that that would help private business, it would also help the public sector.

So, we really need the strength of the Federal Government to be able to protect the public interest so that we do not have to sort of fight these battles on a State-by-State or county-by-county level.

Senator INOUYE. I have other questions I would like to ask, but I will now recognize Senator Burns.

Senator BURNS. Thank you, Mr. Chairman.

I have just now started to go through this legislation and look at it. And I would ask unanimous consent that my statement be entered into the record.

Senator INOUYE. Without objection.

[The prepared statement of Senator Burns follows:]

PREPARED STATEMENT OF SENATOR BURNS

Mr. Chairman. While I think everyone in this room agrees on the need to have a National Information Infrastructure with affordable access for all Americans, it seems there is a fundamental lack of understanding about how such a network will become a reality.

There is no such thing as a free lunch. But this legislation takes the free lunch one step further and says the entity making the free lunch has to pay people to eat it.

The reserved capacity requirements for telecommunications networks in this bill are so burdensome that it will create a disincentive for telecommunications networks investment necessary to expand network capacity.

As a result of giving away 20 percent of their network capacity, network providers will be obliged to raise prices for the services provided over the remaining 80 percent of the network in order to make a fair return on their investment.

The result will be higher prices for consumers taking services that they want and a major reduction in the future capacity of our nation's telecommunications network.

For the groups here today to gain what they really need, a broadband interactive telecommunications network with unlimited capacity, this bill will have the reverse consequence. If enacted it will lead to the construction of a limited network which will preclude access for the groups gathered here today in support of this legislation.

Even with a 20 percent set-aside for these public groups, a network with limited capacity will keep most public groups locked out of the information age. It is with a broadband interactive telecommunications network that all public groups will gain affordable and in many cases public and private funded access to the National Information Infrastructure. In my opinion, this legislation will not help this nation achieve this important goal.

Senator BURNS. Obviously, we have everybody here in support of this legislation and no one that is speaking up that has any concerns with it.

Senator INOUYE. If the Senator will yield. We invited the networks. We invited the FCC. We invited the administration. But due to circumstances beyond their control, so I have been advised, they were not able to be here. But we have invited them to submit written statements.

Senator BURNS. Well, I would hope so as we go down this road.

I have no questions for this group here. I have listened very intently to their testimony this morning.

Mr. Cauthen, you made the statement that things in education—we do not want to get into a situation, I would agree with you completely—we do not want to get into this business of the haves and the have-nots.

We have great things happening in Montana right now without this law. We are using distance learning as well as anybody around because we have great distances in Montana. There is a lot of dirt between light bulbs.

We have also got some people out there that, if this law was in place, I would rather doubt that we would be doing what we are doing now, especially with our rural telephones who operate outside of the regulatory regime. As you well know in your own State that co-ops operate outside that, that serve the rural areas.

I would rather doubt that we would have two or three or four pods of rural schools who are sharing resources both in teaching and also in the ability to attract money through grants or equipment and also the time that it takes on two-way interact. We have got one new one going up this year. There will be five schools. Four schools are already in place and have been used now for a couple of years.

When those systems were set up, the schools thought they would probably use them 2 hours a day. They are now being used over 6. Miles City Community College, Dawson Community College, and the high school in Sidney, MT, hooked together on their nursing programs over there. Where the class is taught in Miles City, those distances are each 100 miles apart.

Now, for people in career changes, they are taking courses at night from both of those community colleges for career changes—single mothers—without driving the 100 miles to go to school or 200 miles roundtrip.

Those things are happening right now. If they are not happening in your State, then it is not because the vehicle is not there or the money or the mindset is not there. Sometimes you have to go to the school board. Sometimes you have to change some funds in order to make this work.

So, I would agree with you that we do not want to get into a situation of the haves and the have-nots. But with money constraints and taxes and everything else, there has to be some incentive to build a broadband system.

And with incentives is, I guess—if the Mickey Mouse dollar forces the technology to the world areas so that other things like education, like telemedicine, like all of these things that we are going to do with this marvelous technology of compressed digital technology traveling on this highway of glass, then we are going to have to put some incentive out there other than using great numbers of tax dollars from this 13-square-mile marvelous area of logic free environment. That is what I am saying. I am saying that we have to give an incentive to build it. But with any disincentive it will not happen.

And when you compare that we want to get like the rest of the world, there are some things happening in this country where we

are light years ahead of the rest of the world in that technology—light years. And I do not want to see that slow down.

We have got a great engine going right now. But I would agree with you—we do not want to get into a situation where there are the haves and the have-nots. We must make it available to libraries, to medical facilities, but especially to schools and libraries. I am very, very supportive of that. And there are ways to do that.

So, I have not dug into this legislation really. This is my first exposure to it in the last couple of days. And I look forward to looking at your written testimony. I appreciate all of you coming today in support of this legislation, because I think it deserves to be looked at it. But I think we better take a thorough look, and not just at one side of it.

Mr. CAUTHEN. Well, Senator, I appreciate what you say there. I totally agree with you that we are light years ahead of the rest of the world in the development of this technology. My only concern is to be sure that the groups that you named have access to it.

And as I look around the country, while we have had access to the kind of technology South Carolina is using, it is not happening in most States. And somehow we have to make it easy enough for all States to be able to have access on an equal basis.

Senator BURNS. That boils down to leadership. I believe in this. I believe in this technology. And I believe in what it has to offer the American society. And the chairman understands that.

I have been interested in this ever since the first day I walked into Washington, DC. Because I think that this technology and this particular part of our national infrastructure is absolutely cornerstone to the empowerment of people. This is people empowerment, especially for our disabled.

My goodness, what it does for a person with disabilities. It takes those disabilities completely out of the equation of being able to participate in the American dream and in the American society.

So, you do not have to sell me on what this has to offer. It is how we go about serving the most people. And sometimes we do things that are disincentives, that does not allow it to happen. And I am not saying that this is one of them, but, as I hear the testimony here this morning, I am a little concerned about it.

I thank you.

Mr. Riddle, did you have a comment? I see you just steaming over there.

Mr. RIDDLE. I cannot help it. I think, Senator Burns, you speak eloquently in favor of the public interest—also as it is expressed in this bill. And, our counsel, having looked at the bill, notes that one of the best aspects of the bill is the flexibility that it gives for the FCC and different areas. Your area has certainly different factors that drive the process than my area, and yet we have to build systems for all of these. And I think this bill really speaks to the ability to have a system set up in different ways according to local conditions.

Senator BURNS. I think that is true. And we are involved in a project now—we are just in the embryo stage, so to speak, of gluing together our Native American reservations. And I think two-way interact is very important not only so that they receive all the benefits of education and certain new ways of helping themselves in

the economic areas, but I think they have a great thing on two-way interact.

That is the reason I pushed broadband very hard. Because I think their culture has something to offer our culture, the overall American culture. I think that is where two-way interact is key. It is key that you and I can interact. Because if we cannot, if it is just one-way, then we have only completed one-half of that cycle.

But when we do that, that means new technologies and new ways of doing things. So, we must give the private sector an incentive to do it. Just do not give them a disincentive not to do it to set in the regulatory basket, so to speak, and feel very comfortable, and not feel compelled that they have to do it, that they have to go into society. That is what I am saying. And that is a narrow line, and you and I could sit down and we could talk for a long time.

By the way, you come from Minneapolis; that is a great town. We in Montana, if we die and are fortunate enough to go to heaven, we are going to have to change planes in Minneapolis. [Laughter.]

Mr. CAUTHEN. Senator, I am sure it would be of interest to you that South Carolina, working with Head Start, has a program to train day care workers. And it reaches out to migrant worker camps, to Indian reservations, to Alaskan villages, to inner city situations. It started with 8 States; it is now in 28 States. And it is live and interactive. You are absolutely correct, the interactive nature of it is essential.

We had a funny thing that happened on it. It included the day care workers and we insisted that the parents be part of it. All of a sudden we saw that some of the parents were disappearing and we got very worried. What we found out, however, was that they were finding jobs in day care centers, because they had learned enough through this process.

Senator BURNS. That is true. And there are some exciting things that happen. That is why I say that this piece that fits into the infrastructure is very important. It is people empowering. It is the greatest empowerment tool that we have, especially the two-way interact. And it is true, we are seeing career changes.

We are seeing, in distance learning, students become participating students, where before they were nonparticipating—not because of the content of the program, because the technology stimulates the curiosity and they become participants.

I guess I am a pretty easy sell on this thing, but I have been traveling all over my State of Montana selling school boards, and now, at Montana State University, a telecommunications center that will offer—of course you know land grant schools and the extension service—and they already have a built-in apparatus in every State. We do not have to create another one. It is already there. All we have to do is just sell them on the idea that this is the right thing to do.

But I would agree with you wholeheartedly, there is a fine line between serving the haves and the have-nots. And I think, with a little bit of really good old Yankee salesmanship, we can take care of that. We can take care of that.

Dr. PRICE. Senator, if I could just say one word that goes to the constitutionality. I think Senator Burns has made a really exceed-

ingly good case for what I think this bill really is, which is the infrastructure of education and citizenship. The point is, how does the public sector—government, whether it is the Federal Government or State government—working with land grant colleges, working with schools, develop an infrastructure for citizenship.

In that sense, this bill is not exactly about the first amendment, the fifth amendment, incentives, or disincentives. It is about how the industry and Government work together with institutions that have already been established, like the land grant colleges, for an infrastructure for citizenship.

Senator BURNS. Well, I thank you, Mr. Chairman. I did not mean to hog the time here and get off on this sermon business.

Senator INOUYE. After listening to you, would you like to cosponsor the bill?

Senator BURNS. I am not ready to do that yet. [Laughter.]

Senator INOUYE. I would like to make it very clear that this measure is intended to benefit all Americans. Therefore, we specifically mention in the bill tribal governments, for example. As all of us are aware, most Americans live in congested metropolitan areas. And some have suggested that it would not be cost effective and therefore that it may not be in the public interest to deploy advanced interactive networks into distance rural areas.

Do you agree with that?

Dr. CONNICK. As I understand the statistic, 40 percent of Americans live on essentially 90 percent of the land. And to go back to Senator Burns' point, it is true that some States have taken real leadership in the development of telecommunications networks for distance education and other purposes, but part of the attractiveness of this bill is that it addresses what are multistate issues.

For example, it is virtually impossible for us to cooperate with New Hampshire and Vermont, which have very similar kinds of needs to Maine, because of the existing regulations. And we cannot work effectively with NYNEX because of those.

Many of these issues are going to have to be addressed as this legislation unfolds. We are going to have to look at how we are going to share curriculum and share resources, but on a much broader scale than simply individual school districts working with a neighbor. We are going to work across State lines and across the Nation.

So, this legislation is very important in looking at networks which span regions and large sections of the country.

Mr. CAUTHEN. Senator, in the STAR Schools program in which we deliver live interactive instruction in foreign language, math and other important programs, there are a number of schools that may have only one or two students that are taking, say, Russian or Japanese or calculus. Those schools would never be able to offer that kind of resource.

We had a young boy from Mississippi who came to testify on the STAR Schools legislation a couple of years ago. He said because of that he got into college, and it was the first foreign language that he and his five classmates had had in the last 8 years. And I think that is the kind of thing that we are talking about. There are sim-

ply not enough teachers, no matter how much money we have, to do this through the same conventional means of education.

Technology is the only way we are going to bring about the needed changes in education to make the needed resources available to every child in every school, no matter where they are located. And it cannot be done on a patchwork basis. It has to be some universal availability. And that can only happen through legislation such as this. Because one State may, yes, make some dramatic advances here and there, but there are going to be lots of States that will simply, for a long, long time to come, never come to the line and make the necessary adjustments.

Mr. BLAU. Sir, if I may follow on to Mr. Cauthen's statement. It seems that in fact the telecommunications technologies that we are talking about allow us to overcome distance, as Senator Burns was talking about. And, specifically, for smaller and rural communities, that means the delivery of economic benefits as well as educational benefits, and the stability of small-town America.

I would hate to penalize people because of their geography, because of where they happen to have been born. If we do not in fact specifically attend to rural areas, there is no reason to believe that we will not in fact widen the gap between rural and urban areas. So, I think that the rural areas that you talk about are in fact the very areas that need specific policy attention.

Senator INOUYE. Yes, Mr. Riddle.

Mr. RIDDLE. I would just like to point out that if we build a society where all the valuable services are located only in the cities, then we will just further encourage this trend for people to move both from reservations and from small family farms into the cities and create further congestion.

Also, it does not value me to be the only person with a telephone. You know, there is a need for universal access because even if I can afford access myself, it does me no good if I cannot reach who I need to reach, who might be on the farm.

And just to be a little more esoteric, we talk about the need for this country to stay on top of things—I think we need to really tap the collective unconsciousness of all of our people. And being connected to the system is going to be very important whether you are within the city or whether you are in the rural areas.

So, to that extent, I think the future of this country is going to be based on us being able to make use of all of our citizens' energies.

Senator INOUYE. Finally, I would like to ask all of you this question. Four weeks ago, the Hon. Richard Riley, the Secretary of Education, testified before this committee in support of S. 1822, the Communications Act of 1994. In his testimony I believe he set forth the administration's position. I would like to read this and ask whether you agree or disagree:

> The principle of "free," public education for all children is the bedrock of our democracy. Not cheap, inexpensive, or available for a fee but in its very essence "free." We believe in this basic American principle because we know its long-term value for society as a whole.
>
> * * * * * * *
>
> Educational institutions large and small—schools, libraries, literacy centers, early childhood centers, community colleges, and universities—should have access and

usage of these services. If we can't connect the NII with all educational institutions at once, then schools, libraries, and literacy centers should be at the top of the list of public institutions that are rapidly linked to the information highway.

Do you agree, Mr. Blau?

Mr. BLAU. I absolutely agree. I could not say it any better. I cannot add anything to the sentiments that Mr. Riley expressed here. All I can say is that I fully agree and I think those kinds of bedrock principles need to guide policymaking in the communications area.

Senator INOUYE. Dr. Connick, you cited that yourself.

Dr. CONNICK. Yes, I clearly agree. I think he is absolutely correct.

Senator INOUYE. Mr. Cauthen.

Mr. CAUTHEN. Senator, I would not dare disagree with the former Governor of South Carolina. [Laughter.]

Senator INOUYE. It looks like it is a South Carolina day.

Mr. Riddle.

Mr. RIDDLE. I do not think the people on either side of the issue would dare disagree with that.

Senator INOUYE. Dr. Price.

Dr. PRICE. I think, again, it underscores the constitutionality of the legislation—that it is concerned with the problem of distribution of education—and that is an important concern and always has been of the Congress.

Senator INOUYE. Gentlemen, I thank you very, very much for your testimony. To the public, this may have seemed one sided, but the record will show that we did invite all views to be expressed at this hearing.

We will hold other hearings, if necessary, to receive testimony from the networks, the telephone companies, commercial organizations, the FCC, and the administration.

With that, once again, thank you very much.

[Whereupon, at 11:15 a.m., the hearing was adjourned.]

APPENDIX

PREPARED STATEMENT OF SENATOR PRESSLER

Mr. Chairman, thank you for holding today's hearing on S. 2195, the National Public Telecommunications Infrastructure Act of 1994. I support efforts to ensure that the benefits of new technologies are shared by all Americans. At the same time, I believe public interest obligations on telecommunications providers must be carefully crafted. We must be careful not to chill investment. New technologies promise to provide more distribution channels for information, higher capacity two-way communications, and a host of new services. In my view, stimulating investment in new technologies is the best way to serve many of our public policy objectives. I look forward to hearing from today's witnesses.

LETTER FROM TIM FINNERTY, CHAIR, LEGISLATIVE/PUBLIC POLICY COMMITTEE, MINNESOTA ASSOCIATION OF CABLE TELEVISION ADMINISTRATORS

JUNE 21, 1994.

The Honorable DANIEL K. INOUYE,
U.S. Senate,
Washington, DC 20510

DEAR MR. CHAIRMAN: **I am writing to you regarding S. 2195, a bill which directs the Federal Communications Commission to require the reservation, for public uses, of capacity on telecommunications networks, and for other purposes.**

The Minnesota Association of Cable Television Administrators is a membership-based, nonprofit organization consisting of 150 Minnesota municipalities engaged in cable television franchise administration. We welcome the development of a fully competitive, robust telecommunications marketplace. It is critical, however, that legislation to advance this worthwhile goal not create this marketplace by giving private commercial interests unfettered access to, and control over, local public rights-of-way and other public property.

We believe that the reservation of public and educational institutions, including local governments of the right to utilize a portion of multichannel video programming capacity for community information outside the providers editorial control is critical to the public interest. Federal law should require multichannell video programming providers, regardless of the means of distribution, to meet public, educational, and governmental access obligations.

While our organization has not yet had the opportunity to take formal action on your proposal, we commend you on your efforts to assure a space on the "information superhighway" for noncommercial interests.

Sincerely,

TIM FINNERTY,
Chair, Legislative/Public Policy Committee.

LETTER FROM SUSAN S. LITTLEFIELD, PRESIDENT, NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS

JUNE 21, 1994.

The Honorable DANIEL K. INOUYE,
U.S. Senate,
Washington, DC 20510

DEAR SENATOR INOUYE: The National Association of Telecommunications Officers and Advisors (NATOA) strongly endorses the policies and goals you seek to achieve

through introduction of S. 2195, the National Public Telecommunications Infrastructure Act of 1994.

As you may know, NATOA represents local government regulators and administrators of telecommunications systems (including cable franchises) which utilize the public rights of way. NATOA's membership is responsible for protecting the interests of more than 5 million cable subscribers around the nation; members also manage communications systems, program government access channels, and advocate for the public interest in the proceedings of Congress, the Federal Communications Commission, and our states and local communities.

Although we are still reviewing the exact language of S. 2195 as introduced, we strongly support your intent to reserve capacity on advanced telecommunications networks for public and noncommercial use, and provide necessary funding that would make such use a reality. Both goals are critical if the promise of the "information superhighway" is to be realized for all citizens, not just the privileged few. Local governments are uniquely equipped to identify the needs and interests of their communities through local mechanisms, and we look forward to sharing the responsibility of redistributing and targeting the capacity to be set aside by S. 2195. We also understand that the bill as introduced will preserve the important principle of compensation for use of the rights of way and other public property, and will preserve existing franchise arrangements.

We would be happy to provide further testimony and information, and we pledge our commitment to work with you and the committee as the bill is further considered.

We applaud your continuing commitment to the public interest in telecommunications.

Respectfully,

SUSAN S. LITTLEFIELD,
President.

PREPARED STATEMENT OF THE NATIONAL SCHOOL BOARDS ASSOCIATION

The National School Boards Association speaks on behalf of public education nationwide and represents 95,000 school board members who endeavor daily to provide an excellent public education to every child in the country. School board members are the elected and appointed local officials responsible for governing more than 15,350 local community public school districts for over 41 million schoolchildren. School board members are elected by parents, business people and other taxpayers in communities across the nation. As local community members themselves, they are the essential bridge between the community and its public schools. They work with the community to develop and set into action policies aimed at giving our nation's schoolchildren the best opportunity to succeed in an increasingly complex world.

NSBA and school board members recognize that an integral part of preparing our public schoolchildren to succeed lies with the effective use of technology in the classroom. NSBA has been a leader in advancing the wise use of technology in public education through its Institute for the Transfer of Technology to Education (ITTE). Launched in 1985, ITTE and its Technology Leadership Network represent the lighthouse school districts engaged in cutting edge work in the area of technology. Publications, site visits to exemplary schools and enhanced communication between school leaders and the technology industry are among its products and services. ITTE also hosts an annual conference attracting over 2,000 school board members, educators, federal and state policymakers and industry representatives who come together to explore technological advances that foster learning.

THE EDUCATION INFORMATION SUPERHIGHWAY

One of the most critical functions of the Information Superhighway will be to open new doors or educational opportunity in our nation's schools. The Clinton Administration is proposing that every classroom be provided with two-way voice, data and video communication by the year 2000. NSBA supports this goal asks that Congress establish a concrete framework in policy to make it a reality. Every classroom in the country must have meaningful, affordable access to the information superhighway. Policymakers must ensure that the superhighway is, above all, a place of learning.

NSBA urges Congress to take decisive action in many areas including:

1. Ensuring that all classrooms are connected to a two-way voice, data and video network at no cost.

2. Ensuring that traditionally underserved areas, such as rural and poor school districts, are made a high priority.
3. Requiring that ongoing access is highly affordable.
4. Stimulating research into new educational programming.
5. Providing funding for teacher training in the wise and creative use of the information superhighway.
6. Setting aside a public space on the superhighway that will include uses by schools.

PUBLIC SPACE ON THE SUPERHIGHWAY

While the broadest vision of the information superhighway is one of infinite lanes and "unlimited" capacity, it is clear that this is likely to be the adult phase of this process. In its infancy, however, capacity and access will be more limited. With education as a priority in superhighway development, a significant portion of capacity must be reserved for public and educational use. Free or highly affordable access to that "public space" must be guaranteed to educational institutions.

EDUCATION SUPERHIGHWAY IN ACTION

The following describes several ongoing pilot projects that have brought various components of an information superhighway to schools. Such pilot projects show clearly how school districts are using telecommunications to open new worlds for students, teachers, and communities:

• A "Virtual School"—Academy VS–BBS (Virtual School Bulletin Board System), a school made of modems and microchips by 8 school districts in west Texas, was a single-line bulletin board created eight years ago at a cost of $5,000. Today, this 15-line regional learning environment stays open 24 hours a day, 365 days a year and is reached by thousands of students using modem-equipped computers and telephone lines.

Students dial the Academy free of charge to read and write E-mail messages, exchange information through on-line forums, search data bases of information, and acquire free software. They also read on-line tutorials and lessons, take tests to gauge their skills, ask questions, tutor peers, and plan collaborative projects.

• Community Telecomputing—Florida's Indian River County School District is the site for the nation's first comprehensive "community telecomputing" system open to all citizens and institutions. Known as IRIS (Indian River Information System), it serves three groups: learners, communities and small businesses.

The most important goal of IRIS is to strengthen the home-school connection, which many consider the best predictor of school success. The program showcases how community telecomputing can expedite home-school communication, expand school hours, and let families design and implement a home curriculum.

• Fiber Link—Using fiber-optic cable between schools and video monitors in each classroom, Arizona's Glendale Union High School District can transmit instructional television and announcements to all the teachers and students in the district. The fiber-optic network, which connects the district's nine schools and district office, is linked to an instructional television (ITV) classroom at each of the schools and to video monitors.

Each ITV room is equipped with simple-to-operate podiums which gives teachers and students control over four television monitors. The system offers several advanced placement classes which do not enroll enough students at any single school to warrant hiring a teacher.

• Project Homeroom—A partnership of six Chicago-area school districts and several local business are investigating how telephone and computer technologies can extend the school day and enhance the learning process.

Students, parents, teachers, and administrators get round-the-dock access to national news services, on-line encyclopedias, science and financial statistics, and their own school libraries. And from their home computers, students can access their personal work files stored on school computers or turn in their homework assignments to their teacher's computers.

• Across the State—Vision Carolina lets students in 16 North Carolina school districts take part electronically in classes that are miles away. Biology students in Charlotte, for example, can observe an operation under way at Duke University Medial Center in Durham without traveling to the university or getting in the doctor's way.

The program features two separate fiber-optic networks linking high schools, community colleges, universities and the medical center. One network is centered in Charlotte and encompasses 12 sites; the other is based in Wilmington and includes five sites.

• Current Events Connection—In Project LA-Konnect (Louisiana Kids Organizing Network News Electronic Communications Teams), fourth, fifth, sixth and 12th grade students and their teachers played the parts of world leaders at a "global event" in spring 1992, culminating a year of preparation and research conducted via classroom television monitors, computer, modems and fax machines.

By emphasizing the use of a wide array of resources—including the vast data bases available from on-line services—it taught students the research skills they need to become lifelong learners in today's rapidly changing world.

• Texas On-Line—Linking more than 1,200 students and teachers in grades two through 12 to public officials and business executives, the TEXAS project (Teachers Electronically Excited and Sharing) has enabled groups of students to choose a local business or organization and investigate its economic impact in their community.

Each class writes an essay on the selected entity, uploads the essay on the electronic network, and shares it with a partner school for discussion. Essays are often forwarded to the community organizations.

CONCLUSION

As Congress crafts legislation that will both launch and govern the information superhighway for years to come, education must be a central concern that is carefully examined and articulated in the legislation. Lawmakers have an historic opportunity to ensure that all of our nation's school children have access to the information superhighway—as both creators and receivers of the bounty that will be available. The National School Boards Association looks forward to working with the members of the Senate Communications Subcommittee of the Commerce, Science and Transportation Committee on the development of this critical legislation.

PREPARED STATEMENT OF PEOPLE FOR THE AMERICAN WAY ACTION FUND AND MEDIA ACCESS PROJECT

People for the American Way Action Fund (PFAWAF) and Media Access Project (MAP) submit this testimony in enthusiastic support of S. 2195, the "National Telecommunications Infrastructure Act of 1994," introduced by Senator Daniel K. Inouye. MAP and PFAWAF commend Senator Inouye for his courageous efforts in guaranteeing that advanced telecommunications networks which promise to be the nation's main link to the future are deployed to ensure that the goals of the First Amendment in communications media are realized.

The much-touted information superhighway has the potential to give rise to a new era of democratic self-governance by providing the means through which civic discourse, education and artistic expression can flourish. However, until the introduction of S. 2195, no pending legislation sought to address an important truth: without careful planning and encouragement, the emerging National Information Infrastructure (NII) risks becoming little more than a forum for expanded business data transmission, home shopping and movies on demand. The National Public Telecommunications Infrastructure Act of 1994 seeks to prevent this by creating a framework under which the greatest diversity of voices and ideas have access to the communications mechanisms of the future. As the Supreme Court recently stated in *Turner Broadcasting* v. *FCC*, "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes the values central to the First Amendment."[1]

Without the capacity reservation provided for under S. 2195, local governmental institutions, libraries, schools, public broadcasters and other nonprofit organizations will be unable to determine how they can best take advantage of new telecommunications technologies. Instead, their fate will be determined by private gatekeepers who have no economic incentives to permit those institutions without the means to pay commercial rates access to their networks. These institutions will encompass many of the main contributors to and facilitators of a diversity of programming on the NII. We applaud Senator Inouye for his effort and thank the Committee for the opportunity to submit this testimony.

S. 2195 WILL HELP REINVIGORATE DEMOCRATIC PARTICIPATION AND FIRST AMENDMENT VALUES

The information superhighway holds breathtaking opportunities for reviving American democracy and for promoting the values embodied in the First Amendment. S. 2195 would ensure that the NII is properly designed and deployed with

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[1] *Turner Broadcasting* v. *FCC*, Docket No. 93-44 (Decided June 27, 1994) at 40.

the ability to give citizens the capacity both to send and receive text, video, voice, graphic and other multimedia services. While providing valuable applications in education, health care and library services, the new media could also revitalize civic discourse on political, cultural, artistic and other matters and stimulate greater citizen involvement in issues of community concern.

The new telecommunications networks have the potential to re-create the "public square" of the past. With legislation that facilitates both commercial and non-commercial uses of the technology, citizens will be able carry on electronic dialogues with elected officials and gather together in cyberspace versions of New England town meetings to deliberate. A diverse array of Americans will be newly empowered, as they use computerized interactive links to question candidates, download government data and "network" with other citizens around the country. Citizens will no longer be viewed merely as recipients of information. Rather, government will be able to facilitate the creation of networks of information exchange, allowing citizens to be producers as well as consumers. The notion of America as a true participatory democracy with citizen access to diverse information and ideas will be enhanced.

Around the country, many forward-thinking state, local and private non-profit institutions are already developing ways to enhance government services and participation through the use of new technologies. For instance, in several communities around the country, electronic kiosks are being used to facilitate the implementation of important government benefits.[2] These electronic "centers" permit citizens to ask questions and receive information, as well as file applications. In addition, several non-profit organizations are establishing electronic fora in which individuals can engage in important discussions about issues that affect both their local communities and the world. For example, in California, the Center for Governmental Studies has begun a multi-year project to design and build interactive multimedia public interest applications for communications systems of the future.[3] The first phase of this is a "Democracy Network" which will permit individuals to have access to video statements of candidates and participate in discussions on local, national, and international issues.[4]

The information superhighway also holds great promise for the revitalization of education, healthcare and cultural expression. As new communications technologies are implemented, the opportunities will be enumerable. Children and others will be educated at virtual campuses regardless of geographic location and will be able to engage in important cross-cultural discussions. Doctors will provide healthcare services to elderly and homebound citizens simply by sitting at their computers. Artists will find new and important modes of presentation and reach millions of citizens every day, engendering increased appreciation and involvement in cultural expression.

Private industries see the next generation of video chiefly as a medium for pay-per-view movies, home shopping and other entertainment-based purposes. They do not envision the super-highway as means of reviving democracy and encouraging free and diverse speech. Without the mandated public obligations of S. 2195, the information superhighway will not be designed to advance those objectives and they may never be realized.

S. 2195 WILL PREVENT PRIVATE MEDIA GATEKEEPERS FROM CONTROLLING WHAT WE SEE AND HEAR AND HOW WE THINK

Like the Internet, which was created with government subsidization and now exists without the intervention of private media gatekeepers, the information superhighway cannot act as a facilitator of democratic participation, education and cultural diversity without the government's early encouragement and support. Although industry representatives continually make promises of the contributions they intend to make to noncommercial uses of their new technology, the history of communications policy teaches us that these promises will never come to fruition without government intervention. The private sector's blue-sky visions will invariably be overridden by economic forces that have little interest in serving less profitable markets. Although they may be recognized as important, education, civic participation, localism, the arts, the humanities and myriad other nonprofit functions will not be financially attractive to businesses, especially while all we have is a limited channel system. In addition, while industry representatives continually promise to hook up every school and library in this country, not everyone has taken the time

[2] In Tulare County, California, Tulare Touch consists of touch-screen kiosks that help low-income welfare recipients apply for benefits. These services are available in several languages and have been able to reduce delay and errors in benefit allocation.

[3] See, Appendix A describing project sponsored by The Center for Governmental Studies.

[4] Id.

to ask what this really means. What good will it be to be "hooked-up" for free if schools and libraries cannot afford the monthly usages fees? Further, what good will it be to have been connected for free, if those institutions lack the necessary equipment and training to use the system to which they are connected?

S. 2196 IS ALSO MODELLED ON GOVERNMENT ENCOURAGEMENT OF COMMUNICATIONS MEDIA IN THE 20TH CENTURY

Throughout American history, government has encouraged and facilitated the means of communication, education and civic discourse. There has long been a government recognition of the rights of individuals to both receive and send information. Since the earliest days of our nation, Congress guided the development of post roads, the construction of railroads and highways and the formation of land grant colleges. This was accomplished through governmental recognition that every citizen in this country must given the tools with which to communicate, educate and be educated, and engage in public discourse. Further, our national systems of telephone, radio and television broadcast services were developed precisely because of the important role played by Congress in ensuring that the nation's communications media serve public debate and involvement. As the Supreme Court recently said, "[i]t has long been a basic tenet of national communications policy that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public."[5]

Congress has also recognized the importance of the non-commercial and public sectors in encouraging the existence of diverse noncommercial speech over all of our communications mechanisms. Since 1934, designated portions of the radio spectrum have been reserved for non-commercial and educational purposes. And, since the early age of television, the federal government has designated certain television channels for noncommercial programming. In fact, Congress established the Corporation for Public Broadcasting in 1967 in order to ensure that the radio and television spectrum reserved for noncommercial programming was utilized effectively, and that those committed to providing noncommercial programming had the means to reach their goals. And, the Cable Communications Act of 1984 provided for the establishment of access mechanisms for the provision of public, educational and governmental programming on cable television systems.

Similarly, the National Public Telecommunications Infrastructure Act recognizes that as new and innovative communications mechanisms are developed, it is the responsibility of the government to ensure that they are developed so that the past efforts of ensuring access and participation by the public are not undermined by market forces. Space must be set aside for noncommercial uses to encourage and support educational, informational, civic and cultural services if the promises of the information superhighway to reinvigorate democratic and cultivate a diversity of voices are to be realized.

S. 2195 IS NARROWLY TAILORED TO EFFECTUATE IMPORTANT GOVERNMENT INTERESTS

The Public Telecommunications Infrastructure Act was carefully drafted to effectuate the critical goals of ensuring public access and encouraging the flow of a diversity of ideas. The bill recognizes that the expectations of the NII are that capacity will eventually be unlimited, making it easy for all comers to have access. Therefore, S. 2195 provides for capacity reservation only until this ubiquitous world is reached. The bill permits the Federal Communications Commission to determine that networks with sufficiently open architecture, capacity and non-discriminatory access terms should not be required to reserve capacity. As such, S. 2195 is care-fully constructed to impose flexible regulations in a world of rapidly changing technology.

The transitional and flexible nature of the legislation makes it constitutionally sound both on First and Fifth Amendment grounds. While we do not include a fall constitutional analysis here, we believe that it is important to comment on two recent Supreme Court cases that many critics of the legislation claim call its constitutionality into question.

We believe that the Public Telecommunications Infrastructure Act promotes values that are central to the First Amendment. In *Turner Broadcasting* v. *FCC*, the Supreme Court addressed the question of whether the commercial and noncommercial must-carry rules of the Cable Television and Consumer Protection and Competition Act of 1992 ("Cable Act") violate the First Amendment rights of cable operators. The Court for the first time defined the First Amendment framework to apply to regulation of the cable industry, and by inference, to new electronic technologies. The 5-4 decision did not conclusively rule on the cable industry's challenge; but in

[5] *Turner*, at 40 (citations omitted).

ordering the lower court to hold new hearings on the sufficiency of the government's record, the decision reaffirmed the substantial nature of Congress' interest in ensuring diverse cable programming. The Court outlined a constitutional scheme which strengthens the rationale for the public right-of-way bill. The court specifically stated that "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes values central to the First Amendment."

Analyzing the Cable Act, the Court held that the must-carry rules are content neutral and therefore subject to less scrutiny than would be applied to analogous government regulation of a newspaper. The Court applied the "intermediate scrutiny" test it had articulated in *United States* v. *O'Brien*, 391 U.S. 367, which requires that content neutral regulations be sufficiently tailored to serve important governmental interests. The public right-of-way proposal embodied in S. 2195 would meet the test established in Turner. S. 2195 does not favor particular speech on the emerging information infrastructure. Like the must-carry rules, it is not designed "to favor or disadvantage any particular content."[6] Instead, the legislation seeks to ensure that all speakers are given the same opportunity to participate in the new communications media and that the builders of the information superhighway do not exclude entire groups of potential speakers because of financial and other business-related limitations.

The set-aside of capacity for noncommercial use in S. 2195 would in no way mandate particular programming decisions, thereby undermining the content neutral nature of the legislation. The *Turner* Court stated that in the "must-carry" context, it was permissible to choose certain classes of speakers, when the criteria used do not themselves turn on the viewpoint or content of their speech. The Court noted that the law creating public broadcasting, for example, does not use government's "financial support to gain leverage over programming decisions."[7] Similarly, the public right-of-way bill does not seek to replace individual programming decisions with the will of government. It seeks only to create a general requirement that noncommercial speakers be permitted to participate on the NII and to encourage the greatest diversity of programming and voices.

In distinguishing between newspapers' freedom from regulation and the power to impose neutral regulation on cable systems, the *Turner* Court embraced yet another powerful rationale for the public right-of-way legislation, namely the degree of control that the cable industry has over access to its audience:

> the physical connection between the television set and the cable network gives the cable operator bottleneck, or gatekeeper, control over most (if not all) of the television programing that is channeled into the subscriber's home. Hence, simply by virtue of its ownership of the essential pathway for cable speech, a cable operator can prevent its subscribers from obtaining access to programming it chooses to exclude. A cable operator, unlike speakers in other media, can thus silence the voice of competing speakers with a mere flick of a switch.[8]

Similarly, for the transitional period during which S. 2195 will operate, owners and operators of telecommunications networks will completely control access to important new communication mechanisms among citizens and between citizens and government. As technology converges, telecommunications carriers, like the cable operators of today, will occupy an increasingly pervasive presence as the gatekeepers to critical information and services. When that is no longer the case, and telecommunications networks exist virtually without boundaries, the public right-of way bill contemplates that its requirements will be extinguished. For the time being, however, as in *Turner*, the potential for abuse of power by these emerging industry gatekeepers is real, and "[t]he First Amendment's command that government not impede the freedom of speech does not disable the government from taking steps to ensure that private interests not restrict, through physical control of a critical pathway of communication, the free flow of information and ideas."[9]

We believe that the Public Telecommunications Infrastructure Act would also withstand a challenge based on "takings" law. The argument has been raised most recently in the context of the Supreme Court's decision in *Dolan* v. *City of Tigard*.[10] There, the Court held that the government may not require a person to give up a portion of her property in exchange for a discretionary benefit from the government where the property sought by the government has little or no relationship to the benefit. The *Dolan* case applies to situations where the government conditions the

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[6] *Turner*, at 21.
[7] *Turner*, at 26.
[8] *Turner*, at 32.
[9] *Turner*, at 33.
[10] *Dolan* v. *City of Tigard*, Docket No. 93-518 (Decided June 24, 1994).

use or development of private property. However, the proposed legislation imposes a Congressionally mandated condition on the private use of public property. S. 2195 would mandate that in exchange for the right to use pub lic rights-of-way for the provision of advanced telecommunications services, telecommunications carriers set aside a portion of the capacity on those rights-of-way for use by the public. Indeed, the legislative language of S. 2195 makes this clear: the capacity to be used by eligible entities is to be treated as public property for which telecommunications carriers will have no legal responsibility. As articulated above, such regulations are an important part the history of our telecommunications system.

Further, even assuming that the capacity to be reserved under S. 2195 is private property, the legislation clearly satisfies the standards set forth by the Supreme Court. The Supreme Court has established, time and again, that the government may require the surrender of certain properly in exchange for valuable government benefits. It is not the case that the government is attempting merely to change the terms of already existing relationships between telecommunications providers and governmental authorities. Here, telecommunications carriers are being given the right to use public rightsf-way to lay their cable or string their wires in order that they may provide enhanced telecommunications services. Instead, S. 2195 addresses the "information superhighway" of the future.

In analyzing the regulations in *Dolan*, the Supreme Court held that in order for there to be no unconstitutional taking an "essential nexus" must be identifiable between a legitimate state interest and the condition being imposed on the use of property. The Court also held that the conditions imposed bear a "reasonable relationship" to the projected impact of the proposed development of the property. There is clearly an "essential nexus" between the conditions to be imposed by S. 2195 and the government interest in ensuring all Americans access to a diversity of voices through the facilitation of dissemination of noncommercial, governmental, educational, informational, cultural, civic an charitable services. Clearly, the reservation of capacity is a mechanism that promotes this interest. In addition, the reservation of capacity is reasonably related to the interests the legislation promotes—in this case, ensuring access to a diversity of information providers. The extensive findings in S. 2195 illustrate that the reservation of capacity is not only reasonably related, but also the "least restrictive means" to ensure such access.[11]

WITHOUT S. 2195 THE INFORMATION SUPERHIGHWAY WILL DEVELOP IN A PIECEMEAL FASHION AND HINDER RATHER THAN PROMOTE DEMOCRACY

Proponents of rapid deployment of the information superhighway make much of its potential to create a national communications system which can establish critical links between and among citizens and public official, elected and appointed. Built into the notion of enhanced democratic participation is the presumption that the NII will truly be a national system. S. 2195 helps to ensure that this will be so.

Recognzing the important role state, local and tribal governments must play in guiding the development of the NII, S. 2195 also helps effectuate the important federal interest of national deployment. The bill strikes an important balance between the interests of state and local authorities in communications system deployment on a community-by-community basis and ensuring that advanced telecommunications services are available for noncommercial uses consistently regardless of geographic location.

Without the reservation of capacity, promises of a national communications infrastructure with the ability to unite all citizens will become elusive. Instead, we will have a fragmented communications system under which certain state and local authorities will ensure access by local governmental bodies, schools, libraries and other non-commercial entities, while others will not provide for this critical access. Therefore, the ability of citizens to engage in national political dialogues coast-to-coast, of school children in isolated areas like Hawaii to learn about inner-city problems by participating in seminars with inner-city kids, and of citizens in Alaska, for example, to obtain information from the Library of Congress will be hampered not by technological limitations but by the lack of uniformity of access to the NII.

The provisions of S. 2195 would also ensure that public access requirements are uniform across emerging technologies. Existing provisions of the Communications Act apply only to particular technologies or services. As a result, requirements, if any, for ensuring noncommercial access to various telecommunications systems vary from technology to technology. S. 2195 would not only ensure that the NII develops

[11] As in the *Turner* case, the holding in *Dolan* sends a clear message that Congressional findings as well as a clear supporting record are critical for documenting the relationship between the conditions to be imposed by the legislation and the state interest to be furthered.

into truly a national infrastructure, but also that the same standards are applied to various industry participants.

APPENDIX A

THE CENTER FOR GOVERNMENTAL STUDIES' THE DEMOCRACY NETWORK—AN ON-LINE, INTERACTIVE, MULTIMEDIA, POLITICAL COMMUNICATION PROTOTYPE

INTRODUCTION

The Center for Governmental Studies has initiated a multi-year project to design, build and install interactive, multimedia, public interest software and applications for the digitized communications systems of the future. These applications win enable low-income and other users, from their homes and other locations, to obtain free or reduced cost information on health, education, employment, government and political empowerment, as well as participate in interactive "video bulletin and issue boards."

The first phase of this project—"The Democracy Network"—is a voting information and political participation component which will be completed by late 1995. The second phase of the project—"Connect California"—is a low-income, interactive, multimedia, broadband "test bed" in South Central Los Angeles. It win distribute health, education, employment and political information and should be initiated by 1996. The third phase of the project—"Connect America"—is the integration of the first two phases into interactive multimedia systems across the country by 1998 and beyond.

SUMMARY

The Democracy Network is an interactive multimedia program which will be installed in broadband digital test beds and enhanced computer networks by late 1994 and 1995. It win allow users, in their homes or other locations, to review full-motion video statements of candidates for elected office; participate in the discussion of local, national and international issues; log on to video bulletin boards and discuss public policy issues with others; and obtain text, graphic, voice and video information on the activities of federal, state and local government and participating courts.

A fully functioning prototype of The Democracy Network will be available for demonstration purposes by June 1994 on an Apple Quadra 840AV computer with a one gigabit hard disk drive and a Radius Video Card.

The project has been funded by the Mary Reynolds Babcock Foundation of Winston-Salem, North Carolina, the Carnegie Corporation of New York, the Nathan Cummings Foundation of New York, the Wallace Alexander Gerbode Foundation of San Francisco, and the James Irvine Foundation of San Francisco.

The Democracy Network has been created with the assistance of AND Interactive Communications, a pioneering multimedia production company. The Electronic Frontier Foundation, the Center for Politics and Policy of the Claremont Graduate School and several telecommunications companies have provided advice as well.

DESCRIPTION OF THE DEMOCRACY NETWORK

The Democracy Network is an electronic, interactive, multimedia system of political participation, civic empowerment and voter information. It will include:

- *Voting Information*—Viewers will be able to access, in a multimedia format, full-motion video statements by political candidates, candidate press conferences, endorsements, TV ads, issue statements, opponent rebuttals, newspaper stories, TV newscasts and campaign contributions. It will allow users to interact with each other and candidates over key campaign issues. It will include an "electronic sample ballot" for potential future electronic voting.
- *Issue Information*—Viewers will be able to "click" their way through a range of video, textual and graphic information on current political, economic, social and public issues (e.g., multimedia discussions by experts on "gun control," "immigration," "the economy," "employment," "abortion," "Bosnia," "South Africa," "education," "welfare reform," etc.).
- *Town Hall Discussion*—Viewers will be able to participate in on-line multimedia bulletin boards, leaving video, audio or textual messages for political candidates or other users, receiving responses to their questions, and viewing others' questions and answers.
- *Government Information*—Viewers will be able to access information placed in the system by government agencies and departments, including video, audio or textual descriptions of agency services and video coverage of governmental proceedings.

• *Court Information*—Viewers will be able to watch oral arguments before participating appellate courts (California's Supreme Court, for example, allows video coverage of its oral arguments).

After focus group and other user evaluations, The Democracy Network will be placed in working cable and telephone company test beds for further refinement. Bell Atlantic (for Alexandria and Northern Virginia), PacTel (for Milpitas, California), Time Warner (for Orlando, Florida) and Viacom (for Castro Valley, California) have expressed interest in including The Democracy Network in their broadband testbeds. The Democracy Network will also be available to coaxial cable computer networks (e.g., such as that planned by Microsoft/TCI).

AN ILLUSTRATIVE SCENARIO

The Democracy Network will offer this scenario:

A voter will be offered an opening menu on his or her TV/computer screen. Choices would include "1994 Election," "Current Issues," "Town Hall Meeting," "Government" and "Courts";

A "click" on "1994 election" will display choices: Governor, U.S. Senator, Congressman, state legislators, judges, city council, ballot measures, etc. A "click" on "Governor" will further display:

Opening video statements by all candidates;

Video statements on up to 10 specific issues by each candidate;

Rebuttals from candidates on those issues;

Videotaped endorsements from up to 5 individuals or organizations selected by the candidates;

All the candidates' TV, radio and print commercials, with easy access to newspaper "truth boxes" commenting on the accuracy of those commercials;

Videotapes of candidate press conferences;

Excerpts from television newscasts covering the candidates;

On-line access to print materials (newspaper and magazine stories, editorials, research on election issues) on the campaigns;

Campaign contribution data listing the top five contributors;

Biographical information on candidates-education, voting records, achievements;

Electronic bulletin beards for voters to communicate with each other and express their comments; and

Access to "Project Vote Smart" and other organizations with candidate information.

A voice activation feature (built into the remote control unit) will allow users to speak a candidate's name ("Governor Wilson") and an issue ("crime") and have that candidate's statement on crime instantly appear;

A simultaneous translation feature will allow users to obtain voiceovers of candidate statements in Spanish, Chinese or other languages.

BENEFITS OF THE DEMOCRACY NETWORK

The Democracy Network will begin to create the most advanced political communications system yet devised. It will allow voters to cast more informed ballots and communicate with each other on political issues; increase voter participation, especially among poor, young and new voters; mitigate the political campaign costs of paid media; provide easy-to-use multi-lingual political materials to non-English speaking audiences; and develop and suggest policies (equal time, reasonable access, fair use of copyrighted materials, etc.) to encourage full utilization of this technology.

The Democracy Network will also help diminish existing financial disparities between candidates, since voters will be able to view the candidates' materials based on interest, not the candidate's financial strength. Because the system will be largely self-operating, candidates will prepare their own materials (as they have done for the initial prototype) and download them into pre-prepared "windows" in local servers. Users will access those windows, review the candidates' materials and even leave their own comments.

The system will be simple to use and will require no experience other than the ability to use a hand-held remote. The software can be upgraded yearly and can be easily adapted to fit other platforms (e.g., cable or telephone company delivered video, broadband computer networks or CD-ROMs).

The project will demonstrate the desirability of allowing all Americans to participate in their political system without cost. It may encourage policy makers to incorporate the new system into the evolving definition of "service" and thus make it available free to candidates and voters.

THE CENTER FOR GOVERNMENTAL STUDIES

The Center for Governmental Studies, a Los Angeles-based, private, nonprofit organization which works to improve the processes of media and democratic governance, is a pioneer in new media and governance. The Center built "The California Channel," the nation's first "state C-SPAN," a satellite-fed, public affairs television network now available to 4 million homes. The Center has also published seven major books on media and political reform, organized three statewide commissions and stimulated the introduction or adoption of over two dozen political reform laws.

NCTA COMMENTS ON S. 2195

S. 2195 would require private telecommunication companies to allocate up to 20 percent of their network capacity to public entities, such as state and local governments, universities, advocacy groups, and other non-profit institutions. NCTA agrees that the objective of the bill—to ensure widespread access to the information superhighway—is commendable. However, in practical terms, S. 2195 is unnecessary, will produce adverse effects, and is unconstitutional.

S. 2195 is unnecessary, for at least two reasons:

1. The objectives set out in S. 2195 are, in many ways, being addressed today through other, less-intrusive measures. Under current law, for example cable operators must:

- dedicate channels for public, educational, and governmental ("PEG") use;
- provide free carriage to local public broadcasters; and
- set aside additional capacity for commercial leased access.

In addition, current telecommunications bills pending in Congress mandate the following:

- reduced rates for public institutions that use telecommunications networks, and
- other targeted provisions to help educational and health care institutions gain access to telecommunications networks.

2. There is no evidence that the groups favored by S. 2195 require free access to telecommunications services. Targeted measures, such as those in pending legislation, are more effective means to providing access. S. 2195 extends privileges to a broad number of groups, many of whom are substantial users of existing telecommunications networks (including the broadcast spectrum). Many of these groups also have ready access to the funds they would need to purchase capacity on telecommunications networks. If some groups do not have sufficient funds for such purposes, explicit public sector subsidies are much more efficient than broad mandates on private companies.

S. 2195 is unconstitutional. S. 2195 would appear to violate both the First and Fifth Amendment rights of cable operators and other telecommunications providers.

1. Fifth Amendment Violation—Unconstitutional Taking. S. 2195 seems to violate the Fifth Amendment's requirement that the Federal government provide compensation when it takes private property for a public use. The fact that telecommunications networks use public rights-of-way does not eliminate this requirement, for at least two reasons:

- Network facilities are wholly owned by private companies; and
- The government already has been compensated for the use of such rights-of-way in the form of franchise fees, PEG, must-carry and leased-access channel set-asides, universal service obligations, common carrier duties, and other unique public interest obligations imposed upon network providers.

This problem would be aggravated if network owners were required to contribute revenues to an economic support fund for eligible entities. In effect, the bill requires network providers to surrender both a portion of their capital plant and a portion of their annual revenues.

2. First Amendment Violation. S. 2195 provides free use of communications networks to certain groups that use the capacity "only for the provision of educational, informational, cultural, civic, or charitable services." Thus, privileged access would depend upon a speaker's membership in particular groups favored by the government, as well as the content of the group's message. Consequently:

- Speech by a group is favored over speech by an individual.
- Speech that seeks to educate or inform is favored over speech that seeks to entertain or advertise.

The First Amendment does not permit the government to use such distinctions as the basis for granting or denying privileged access to communication media.

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