



REPORT OF THE
NORTH CAROLINA BOARD OF SCIENCE AND
TECHNOLOGY

TO THE NORTH CAROLINA UTILITIES COMMISSION

PUBLIC HEARING ON UNIVERSAL SERVICE
(DOCKET NO. P-100, SUB 133g)

RALEIGH
MARCH 30, 1998

Introduction

The beginning of the 21st century poses unbounded opportunities for education and the collection and dissemination of information. In the information age, the ability to understand technology and to use that technology to collect information and to communicate effectively is a paramount requirement. If we do not create policies to promote participation in the information age by all members of our society, we are in danger of creating a structural underclass that will be permanently underprepared to participate in the 21st century workforce.

Throughout this decade, North Carolina has been trying, as a state, to enhance the capabilities of our young people to succeed in the information age. In 1992, the State Board of Education approved a computer proficiency requirement which mandates that all students beginning in 2001 must pass a computer competency exam. It would be irresponsible to require children to learn these important skills but not to equip them with opportunities to continue to hone this knowledge once they leave high school. Moreover, it would be tragic to restrict appropriate training for the information age to individuals under the age of 18. This capacity to instruct our population in information age tools must begin in primary and secondary school but also continue through community colleges, universities, and to the community as a whole.

The North Carolina Board of Science and Technology believes that the proliferation of high-speed networks is the key to training a competitive workforce in the 21st century. Community colleges, which are inextricably linked to the industrial and technical part of our economy and are the primary venue for workforce retaining, should not be left out of this communications revolution. Neither should colleges and universities that provide more comprehensive training, nor community-based organizations that serve the least fortunate in our society be passed by. The premise of universal service, to provide all citizens with access to communications technology, should guide policy makers as they strive to keep North Carolina competitive in the 21st century.

North Carolina Board of Science and Technology

The North Carolina General Assembly established the North Carolina Board of Science and Technology (the Board) in 1963. The Board was designed to encourage, promote, and support scientific, engineering, and industrial research applications in North Carolina. The Board works to investigate new areas of emerging science and technology and conducts studies on the competitiveness of state industry and research institutions in these fields. The Board also works with the General Assembly and the Governor to put into place the infrastructure that keeps North Carolina on the cutting edge of science and technology. The Governor chairs the nineteen-member Board, which includes individuals who represent major universities, research institutions, private industry, and government.

The Board believes that education is the key to economic growth in North Carolina and that promoting the penetration of advanced telecommunications networks within the state will ensure that all citizens have access to educational opportunities. Outreach to the citizens of North Carolina concerning the new universal service provisions of the federal Telecommunications Act of 1996 was a logical nexus of these two goals. Accordingly, the Board undertook a public education and comment process in December 1997 holding 11 hearings around North Carolina. The hearings had a two-fold purpose: to educate the public about the new federal rules on universal service, and to provide a forum to collect comments from the public which the Board would later provide in a report to the North Carolina Utilities Commission (NCUC).

Hearing Process

From December 1 – 15, 1997, the Board held hearings on universal service in the following ten locations: Charlotte, Elizabeth City, Fayetteville, Greensboro, Hickory, New Bern, Raleigh, Rocky Mount, Sylva, and Wilmington. In addition, the Board held an additional hearing in Chapel Hill in conjunction with a meeting of the North Carolina Information Highway Policy Committee.

A member of the Board chaired each hearing. Members of the General Assembly including Representatives Ed McMahon, Thomas Wright, Dennis Reynolds, and Maggie Jeffus, and Senators

Roy Cooper and Eric Reeves, assisted the Board by attending and speaking at the hearings. At each hearing, Jane Smith Patterson, Senior Advisor to the Governor for Science and Technology and Executive Director of the North Carolina Board of Science and Technology, made a presentation on the history of universal service and the benefits currently available to: individuals that live in high-cost areas, low-income individuals, schools and libraries, and rural health care providers. After taking questions, the Board opened the floor to public comment. The Board also accepted comments submitted by email or U.S. mail. Approximately 250 individuals attended these hearings representing thousands of others.

Comments Received

The Board received verbal or written comments from more than 100 people. Transcripts of the comments received verbally, as well as all comments transmitted in written form are attached to this report. The comments received can be divided into roughly six categories regarding: Lifeline/Link Up, Schools and Libraries, Community Colleges, Non-Public Colleges and Universities, Non-profit "community networking" Organizations, and Disabled Individuals.

Those who commented were generally positive about the benefits to low-income individuals, schools and libraries, and rural health care providers, that were made available or increased with the federal Telecommunications Act of 1996 (TA96). There was, however, a great deal of concern about groups of people that may have been left out of the TA96 funding. These individuals would not only miss the opportunity to reap the benefits of the information revolution but would be left behind as the computer skills and information access become the keys to success in the 21st century.

The comments received are summarized by category in the subsections listed below. The number of comments the Board received regarding each subsection is listed in the beginning of each subsection. As many individuals' comments pertained to more than one subsection, the total number of comments received is less than the sum of comments received for all the subsections.

1. Lifeline/Link Up-- ___ comments

- The comments received on Lifeline and Link Up were generally positive. Lifeline and Link Up provide discounts low-income households to promote higher telephone penetration. The benefits of having a telephone: to call a teacher, to get a job, to call for emergency assistance are self-evident. [quote here if I have one] North Carolina has participated in these programs at the maximum level since their inception in the mid-1980s.
- Concern was raised about these programs' low subscribership. In 1996 only 563 [check number] households used Link Up discounts when they activated new phone service and only 23,200 [check number] households participated in Lifeline. It is estimated that more than 300,000 households in North Carolina may be eligible to participate in these programs.
- It was suggested that the state North Carolina make a concerted effort to publicize better these programs. [quote here]
- It was further suggested that North Carolina examine the idea of creating a system through which individuals who participate in one or more of the qualifying programs be automatically enrolled in Lifeline and Link Up. [quote here]
- It was also suggested that North Carolina expand the eligibility criteria for Lifeline and Link Up to be consistent with that now endorsed by the FCC. To be eligible for Lifeline or Link Up in North Carolina, one must be a recipient of Supplemental Security Income (SSI), Food Stamps, or TANF/Work First. The FCC recommends that eligibility to receive Lifeline or Linkup be based on participation in the above mentioned programs and also Medicaid, federal public housing assistance or Section 8, or the federal Low Income Home Energy Assistance Program (LIHEAP). [quotes]

2. Schools and Libraries-- ___ comments

- The comments from schools and libraries were also quite positive. Those individuals representing schools and libraries that participated in the Board's hearings came to learn more about the federal E-Rate program for schools and libraries and to express their satisfaction with the opportunities it presented. [quotes].
- Some concern was raised about the complexity of the application process and the availability of funds in subsequent years. [quotes]

3. Rural Health Care—24 comments

- Many health care providers provided comments to the Board on telehealth and the federal rural health care discounts. Many touted the benefits of telehealth programs such as bringing good health care to rural areas and encouraging patients and physicians to remain in rural areas, [Lewis Lature, Wilson County Health Department, Rocky Mount Hearing, *telemedicine "keeps patients in the area, they don't have to go outside to the larger metropolitan areas to receive physician care and the physicians can keep their patients rather than losing them to physicians in larger areas."*]
- However, rural health care representatives were only cautiously optimistic about the federal rural health discount program. [quote] Hearing participants expressed concern about the complexity of the application process and requested assistance from the Board in completing the applications. They also requested greater funds to support their efforts at telehealth as the federal program only provides funds to equalize the cost of telehealth in rural and urban areas, *"I am getting competitive rates with what is available in the urban areas. The big problem is that the county doesn't have the resources to come up with the money even what the urban rates are paying...I am requesting...that rural health efforts in a county get the same consideration for discounts that the libraries and schools get."* [Dr. Christopher _____, Health Director, Halifax County, Rocky Mount Hearing].
- The majority of the comments received centered on the Metropolitan Statistical Area (MSA) issue. Only non-profit health care providers who live in counties that are classified as "rural" according to the Office of Management and Budget (OMB), are eligible to receive discounts from the federal rural health care fund. If OMB classifies a county as within an MSA, then health care providers in that county are ineligible for discounts (and schools and libraries in that county receive the lower "urban" E-Rate discount). _____ North Carolina counties are listed within MSAs. Many of these counties are rural in character but are classified within an MSA due to the percentage of that county's population that commutes into a MSA city for work.
- The Board was urged by many hearing participants to attempt to change the federal OMB/MSA classification of several rural counties from the urban status they currently have. [quote] Alternatively, the Board was asked to recommend that an intrastate universal service fund provide rural health discounts to these counties that the state recognizes as rural but OMB classifies within an MSA. [quote]

4. Community-Based and Community-Networking Organizations—99 comments

- Non-profits, community-based organizations, and community-networking organizations were very visible at the Board's hearings. We also received many letters and emails from individuals representing or served by these organizations.
- Non-profit organizations commented to the Board that it was unreasonable for them to be charged higher business rates for phone service as opposed to lower residential rates. The Orange County Alliance for the Mentally Ill wrote that, *"We explained [to our local phone company] that we need a telephone number only for incoming crisis calls. We were advised that there is no provision in the current tariff for a nonprofit volunteer organization such as OCAMI to be provided incoming service on a reduced basis. Instead, we were told to anticipate a \$100-\$200 installation cost and a month service charge of \$50-\$60.... When dealing with a \$800 - \$100 annual budget I am sure you can understand our inability to absorb the[se] costs."*
- Community Networking Organizations—[Terry's quotes]

- The Board received many comments from individuals that have subsidized internet access through community networking organizations such as [M@in](#) or Charlotte's Web. They requested that the Board recommend to the NCUC that these organizations receive support through an intrastate universal service fund. [quotes]
- 5. Community Colleges—9 comments**
- Many representatives of the North Carolina community colleges system participated in the Board's hearings. Community colleges serve a great deal of citizens in the state, "*Last year over 750,000 adults attended on of the 58 community colleges in North Carolina....we cannot improve quality of life in rural areas without access to information and communications.*" [Steve Scott, President, Southeastern Community College, December 4, 1997]
 - Community colleges do not receive additional state support for their advanced telecommunications needs. They asked to the Board to support E-Rate-type discounts for them from an intrastate universal service fund as they were denied any benefits under the federal universal service fund. "*Last year, Southeastern Community College, a small rural college, spent more than \$120,000 on telecommunications. That expenditure is about 30% of SCC's non-salary operational budget and is a drain on other services.... We urge the N.C. Public Utilities Commission to include community colleges and community-based organizations in [an intrastate universal service fund].*" [Steve Scott, President, Southeastern Community College, December 4, 1997] [add quotes here from other sources]
- 6. Independent Colleges and Universities—7 comments**
- Representatives from several [list or give examples] independent colleges in North Carolina attended and commented at the hearings. These 37 non-profit institutions serve 60,000 students annually. They provide resources to the communities in which they are located such as, "*extensive and rare libraries...cultural and educational programs...community service projects...extensive outreach programs in the public schools of the state. The total economic benefit to the state economy exceeds 5 billion dollars annually.*" [Gordon Charter, Barton College, Rocky Mount Hearing]
 - Independent colleges and universities do not receive state funds to support advanced telecommunications as public universities do. Representatives of independent colleges urged the Board to support the establishment of an intrastate universal service fund that would provide telecommunications discounts to independent colleges. [quote]
- 7. Disabled—11 comments**
- Both disabled individuals and community-based organizations representing them participated in the hearings. They asked the Board to support discounts on telecommunications and Internet access for these individuals through an intrastate universal service fund. "*Virtual Buddies is a state-wide group that is trying to connect individuals with disabilities to the internet using donated computers...Often individuals with disabilities are home-bound...Telecommuting is a viable option for many of these individuals in order for them to go to work...or to get an education. We support that these funds be used to provide individuals with disabilities, both in rural and urban areas, with access to the Internet at a reduced cost.*" [Jim Parhamovich, Virtual Buddies, Charlotte Hearing].
 - In addition, many disabled individuals asked the Board to support community-networking organizations, such as [M@IN](#), that provide subsidized Internet access in rural areas. [quote about without this access these folks are cut off]

Follow-up by the North Carolina Board of Science and Technology

1. Report to the North Carolina Utilities Commission (NCUC)

The Board is filing this report during a public hearing on NUCU Docket No. P-100, Sub 133g, to inform the members of the NCUC of the comments received during the Board's public hearings on universal service in December 1997. The Board will also make recommendations to the NCUC

regarding the establishment of a North Carolina intrastate universal service fund. Those recommendations are provided in the "Recommendations" section below.

2. Workshops for Schools and Libraries and Rural Health Care Providers

In an effort to address the requests for continuing assistance with the E-Rate and rural health discounts process, the Board sponsored workshops on filling out the applications necessary to receive these federal funds. The Board invited to North Carolina, Tom Carroll of the Schools and Libraries Corporation, and Mel Blackwell of the Rural Health Care Corporation. Dr. Carroll held two workshops in late January that were carried to nine locations in the state over the North Carolina Information Highway (NCIH). These two and one half hour workshops covered technology planning and completing Forms 470, 471, and 486. Approximately 250 people participated in the workshops. The Board also distributed videotapes of the workshops to representatives of schools and libraries who could not attend. On April 13, the Board is sponsoring a similar workshop for rural health care providers interested in applying for the federal discounts. This workshop will also be carried over the NCIH to nine locations in the state and will cover completing Forms 465, 466, 467, and 468.

3. Letter from Governor Hunt to the FCC Pursuant to the State of Pennsylvania's Request for a Waiver from the OMB Rural/Urban Designations on Behalf of Nine Counties in Pennsylvania

At the Board's request, Governor Hunt made an *ex parte* filing with the FCC to support a petition by the state of Pennsylvania for a waiver of the OMB definition of "rural" on behalf of nine of its counties (please see attached). Pennsylvania proposes a non-binding, four-part test against which petitions for waivers from the OMB's rural/urban definition can be judged. If Pennsylvania's petition is successful, then other states could apply for waivers of the OMB definition based on the same criteria. According to Pennsylvania's waiver criteria, seventeen North Carolina counties, currently classified as "urban", would be eligible for federal discounts for their non-profit health care providers as well as greater discounts for their schools and libraries. These counties are: Alexander, Brunswick, Caldwell, Chatham, Currituck, Davidson, Davie, Edgecomb, Franklin, Johnston, Lincoln, Madison, Randolph, Rowan, Stokes, Union, and Yadkin.

Recommendations

Based on the comments received in conjunction with its universal service hearings in December 1997, the Board makes the following recommendations to the North Carolina Utilities Commission (NCUC).

1. The goal of universal service at its genesis in the 1930s was to provide all Americans with access to communications networks through nationwide penetration of telephone service—the most sophisticated and accessible communications device available.
2. On the eve of the 21st century, the goal of universal service should be to provide all Americans with access to advanced telecommunications networks through nationwide penetration of high-speed communications capacity.
3. North Carolina has been a leader in supporting the proliferation of high-speed communications networks in all regions of the state.
4. North Carolina has also taken a leading role in enhancing the capabilities of our young people to live in the 21st century's information society by requiring students pass a computer proficiency examination in order to receive a high-school diploma. The federal E-Rate funds will assist the state in achieving these goals by providing students from the time they start kindergarten to the time they leave the twelfth grade with the tools they need to succeed in the 21st century.
5. It would be irresponsible equip students with these important tools but to cease support for them once they leave high school. These tools should be available to children, and to their parents, in all stages of their lives, through their community colleges, colleges, and within their communities. The way to make these tools available is to build out these communications networks in all parts of the state.

Lifeline and Link Up

6. The Board recommends that the Lifeline program that provides discounted telephone service to low-income individuals be more vigorously promoted so that those individuals that are eligible to participate are better informed about the program and encouraged to subscribe.
7. The Board further recommends that the NCUC establish a task force with the goal of establishing a system by which individuals will be automatically enrolled in Lifeline upon enrollment in any of the programs that determine eligibility for Lifeline.
8. The Board also recommends that the eligibility criteria for Lifeline and Link Up be expanded to match that which is advocated by the FCC in its May 8, 1997 Order on universal service. This would require the addition of Medicaid, Section 8, and LIHEAP as eligibility criteria in North Carolina.

Non-Profit Organizations

9. The Board recommends that not-for-profit organizations that serve the poor, disabled, or the community at large, be permitted to purchase basic telephone service at a tariffed rate below that which is charge to commercial businesses.

Intrastate Universal Service Fund

10. The Board recommends that the intrastate universal service fund that will be established to support telephone penetration in high-cost areas in the state, also provide benefits to the following groups so that they can purchase advanced telecommunications services:
 - **Community Colleges**
 - **Non-Profit Health Care Providers in Counties that Receive State Support Due to Their Rural Status but are not Eligible for Federal Universal Service Funds Based on Their Classification as Being Within an MSA**
 - **Community-Based Organizations and Community Networking Organizations**
 - **Independent Universities**
11. These entities would submit proposals through an RFP process to the NCUC or to an entity designated by the NCUC to administer these funds.
12. The Board recommends that this fund be approximately \$5,000,000 in size and that the money be annually recurring.
13. The Board recommends that the fund be divided so that: 40% is available to community colleges; 40% is available to community-based organizations, community networking organizations, and independent universities and; 20% is available to rural health care providers.
14. The Board recommends that the NCUC determine the most appropriate way to collect these funds but that these funds be collected from the same sources and in the same manner as those collected to support high-cost areas in North Carolina. The Board suggests that this fund could be supported by a charge per access line as 911 service is currently funded, or through tax credits in the way that Lifeline is currently funded. *[JSP, should I be so specific, should I mention more about tax credits here, or should it be left completely up to the NCUC?]*

To Be Attached to the Report of the NCBST to the NCUC:

- Redbook/slides?
- List of Board Members
- Hearing Brochure
- Governor's letter to FCC
- All Comments