Residents of Alaska's bigger communities pay about $25 per month for unlimited access to the Internet, including unlimited use of email. Residents of smaller/more remote towns (such as Angoon, Pelican, Sand Point, Unalaska, White Mountain, Teller, and Brevig Mission) pay about $45 per month for similar services. Over two dozen different companies within Alaska offer Internet service; some, including GCI, PTI, and Internet Alaska, offer service to many communities statewide. Other ISPs, such as Kenai Net serving the Kenai, Seward Net serving Seward to Moose Pass, and Mosquitonet serving Fairbanks, offer service to a smaller geographic area only.

Members of a few Southeast Alaska communities receive Internet service through a non-commercial ISP: SEAKnet, a regional computer network initially funded by a federal NTIA grant to the Alaska State Library, originally served the communities of Gustavus, Haines, Hoonah, Kake, Petersburg and Wrangell. SEAKnet is now a collaboration between the Alaska State Library, the SEAKnet communities, and the University of Alaska.

Currently, SEAKnet serves four communities since Petersburg and Wrangell elected to continue Internet service through commercial providers. Routers, terminal servers, and modems in each community allow local users to connect their own computers to the University of Alaska's computer network and, in turn, to the Internet by dialing a local telephone number. SEAKnet is currently administered by representatives in each of the four remaining communities and at the Alaska State Library, with network services provided by the University of Alaska and technical support by volunteers and library staff in each community. SEAKnet relies heavily on local libraries and volunteers to sign up users and help them get connected. Users pay a monthly fee of $25 (plus a local contribution in some communities).

In 1999, community members in Hoonah began a spin-off from SEAKnet and now have their own non-profit community-based ISP, HoonahNet. With support from the City of Hoonah and the Liquor Board, the community installed a VSAT satellite and server. Users pay $30 per month plus a $35 installation fee. The organization's website reports that $10 per month goes to administer and maintain the dial-in, web and mail servers and do the organization's bookkeeping; $10 per month is earmarked for the 512k VSAT satellite service fees; $7 per month pays for the dial-in phone lines from PTI; the remaining $3 per month fee, as well as the $35 installation fee, goes towards adding modems and dial-in lines and maintaining existing equipment.

The Federal E-Rate Program and ASTF Grants: Helping to Connect Alaska's Schools

According to Della Matthis, Alaska State Library's E-Rate Coordinator, all school district offices and nearly every school in the state have access to the Internet. She estimates that students in 95% of the school buildings in the state have Internet access; the only schools without Internet access are those located in areas with extreme physical obstacles (e.g., schools at the back of fjords in Southeast Alaska). She reports that some schools still use radio phones and a few have a single copper-grade phone line that allows only a slow connection and a long distance phone call.[7] Ms. Mathis credits two sources of funding—the Alaska Science and Technology Foundation (ASTF) and

[7] Ms. Matthis reports that schools without Internet access include 3 or 4 schools in the Southeast Island School District, 2 schools in the Chugach School District, one school in the Yukon Flats School District, and one in the Yukon-Koyukuk School District.

the E-rate discounts—with the Internet connectivity of Alaska schools.[8] Ms. Matthis believes that "through the influx of Alaska Science and Technology Foundation funding and E-Rate discounts, the districts of Alaska are fast becoming connected to the greater world of Information. Still to be overcome are the enormous monthly costs of such connections and the difficulty of supporting and maintaining networks off the road system."

THE FEDERAL E-RATE PROGRAM

Federal law has long recognized that communication services were vital to all Americans.[9] The Communications Act of 1934 first codified that goal as follows:

> To make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.

These words continue to provide the ideological and legal basis for many U.S. telecommunications laws and programs. The Universal Service Fund (USF) was established in 1983 to ensure that all Americans can afford telephone service wherever they live. Prior to 1983, this was accomplished through AT&T's internal rate structure, but the divestiture of AT&T led to the establishment of the USF to keep telephone service affordable in a competitive telecommunications market.

Until 1996, the fund compensated telecommunications companies providing service to low income areas and rural communities. In 1996, Congress passed the Telecommunications Act of 1996, mandating that the Universal Service Fund also provide support for schools, libraries and rural health care providers.

The USF is comprised of contributions from all telecommunications companies in the United States, including local and long distance phone companies, wireless and paging companies, and payphone providers. All of the country's communities—including public and private schools, public libraries, rural health care providers, low-income neighborhoods, and remote communities—are now eligible to seek discounts for communications services from the Universal Service Fund.

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[8] It should be noted that although praised by most policymakers, the E-rate program has its critics. For example, David Hughes, listed as the contact for "policy and operational questions" at Old Colorado City Communications, a company offering wireless connections to the Internet, points out that "even though there are technologies (no-license wireless or microwave) that would permit a school district to buy the equipment to link all of its schools to the closest ISP, or to each other across a town, and NOT pay for a recurring cost last-mile-link service, month after month, and year after year, the telephone companies who only agreed to do this if THEY were the primary beneficiaries of E-rate, lobbied the FCC to make the rules so that a school could NOT buy the wireless-devices or microwaves they wanted, so, forcing the schools to get their service from the telephone companies or in some small part, maybe the cable companies. Many schools. . . wanted to use the first year's E-rate program funds to make the one-time purchase of [such equipment]. . . but they were prohibited from doing so by the FCC nee Telephone Company, rules. So that wonderful E-rate, that has cost $3.5 billion so far, will cost another $3.5 billion, and another, and another every year for Eternity. So the schools are being held hostage by the telephone companies. Having installed the telephone company 'services' with that recurring annual (which the schools have to apply for every year - add the cost of its administration) subsidy, IF the Congress cuts off that program, or threatens too, all the schools and libraries will scream bloody murder to keep up that 'free' money from Washington. . . The telephone companies, once the services are installed, can't lose. . . .The E-Rate program remains one of the most backward looking public policies in the nation. With a hell of a lot of smoke and mirrors hiding the dirty little secrets. But with plenty of self-congratulations being passed around" (emphasis in original, from an email authored by David Hughes, forwarded to Maria Gladziszewski by Mark Springer, March 4, 2000).

[9] This brief history of universal service is adapted from information contained on the web site of the Universal Service Organization (*http://www.universalservice.org/info/usf.html*).

Under direction from the Federal Communications Commission, the Universal Service Administrative Company (USAC), a private, not-for-profit organization, administers the USF and the following four programs: the High Cost Program, the Low Income Program, the Rural Health Care Program, and the Schools and Libraries Program. The Universal Service Fund for Schools and Libraries—popularly known as the "E-rate" program—has greatly benefited schools in rural Alaska. Table 2 lists the funding received by schools, libraries, and rural health facilities in Alaska for each of the last two federal funding cycles. Alaska's schools and libraries received approximately $12 million in discounts in each of the first two E-rate funding cycles, more per student than any other state.

SCHOOLS AND LIBRARIES

The Schools and Libraries Division of the USAC administers the program offering discounted telecommunications services for eligible schools and libraries. The Telecommunications Act of 1996 expanded the concept of universal service to include a mandate that all telecommunications carriers provide "services to elementary schools, secondary schools, and libraries for educational purposes at rates less than the amounts charged for similar services to other parties." Program funds, capped at $2.25 billion annually, provide discounts of 20 to 90 percent on telecommunications services, Internet access, and internal connections within schools and library buildings. Schools and libraries in low-income areas—as measured by the number of students eligible for the National Free Lunch Program—as well as those in rural areas qualify for the highest discounts. All of Alaska, except the Anchorage area, is considered rural for the purposes of calculating the discount level.

Once approved, discounts are paid directly to the companies providing the telecommunications, Internet access or internal connections; the schools and libraries are responsible for paying the undiscounted portion. According to data published by the Schools and Libraries Division, in each of the first two years of the program, schools and libraries in Alaska received an average discount of over 70 percent for eligible services.[10]

RURAL HEALTH CARE

The Rural Health Care Division of USAC administers the program offering discounted telecommunications services to eligible rural health care providers. Congress mandated that discounted services for rural health care, capped at $400 million annually, be offered so that public or non-profit rural health care providers pay no more than their urban counterparts for telecommunication services. The Rural Health Care Division aims to provide support to rural health care providers for telecommunications services related to the use of telemedicine and telehealth.

In addition, any not-for-profit health care provider—whether in a rural or urban area—qualifies for Internet access assistance if the organization must pay toll charges (long distance) in order to access an Internet Service Provider. In this case, the health care provider may qualify to receive 30 hours or $180 per month, whichever is less, to pay for the toll charges. All of Alaska outside of the Anchorage area is classified as rural for the purposes of this program.

As you can see from Table 2, during the first year funds were available to rural health care providers, Alaska providers received $444,000—nearly 20 percent of the total distributed nationally. Rural health care providers in House Election District 37 (including providers in Ambler, Buckland, Deering, Kivalina, Kobuk, Kiana, Kotzebue, Noatak, Noorvik, Point Hope, Selawik, and Shungnak), received nearly 43 percent of that amount, or $188,000.

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[10] School and library funding data are available on-line at *www.sl.universalservice.org/apply/fcyear1/state.asp* and *www.sl.universalservice.org/apply/fcyear2/state.asp*. The data for Alaska are presented in Table 2 of this report.