

Telecommunications, continued from page 6

community organizations, libraries, colleges, and public safety. In 1994 and 1995, TIAP awarded 210 grants in 48 states, the District of Columbia and the U.S. Virgin Islands. Approximately \$60 million in Federal grant funds were matched by \$100 million in non-federal funds. A significant amount went to rural areas generally underserved by information technologies; disadvantaged urban Americans also benefited from projects.

The Impact of TIAP Projects

Two-thirds of the TIAP projects are still underway, but in discussions with project directors and a review of project reports, significant impacts are beginning to emerge.

- **Innovations in Education.** Schools are using the Internet to provide teachers with new teaching tools and students with new educational opportunities. Students in rural areas are using distance learning networks to take advanced placement courses from teachers hundreds of miles away.

- **Increased Access to Lifelong Learning Opportunities.** Rural public libraries are expanding services, schools are using networks to open doors to their communities, and adult learners are improving job skills by taking courses through distance learning networks.

- **More Responsive Public Institutions.** A number of government agencies, schools, libraries, and other community organizations that previously had limited means of reaching their constituencies now provide information over the Internet.

- **Enhanced Economic Development in**

Rural and Disadvantaged Areas. TIAP grants demonstrate non-profit and public service organizations no longer need to be bound by geography and time. For example, several rural businesses with limited resources and technical skills, now market their products over the Internet.

- **Increased Access to Health Care.** Many groups with limited access to health care services, particularly rural communities, now gain greater access through telemedicine networks.

- **Increased Sense of Community.** Workers in government agencies, students, health care providers and others are using e-mail and other electronic messaging to expand the network they reach, improve service delivery, and increase communication with others.

- **Replicable Models and Strategies for Introducing Information Infrastructure into the Public and Non-Profit Sectors.** TIAP projects receive frequent inquiries from people all over the world interested in learning to implement similar projects.

Case Studies

Plugged In of East Palo Alto, CA demonstrated that young people from urban, low-income neighborhoods can become providers of information technology, not just consumers. Plugged In operates a community access center for the community to connect to information technology. Working in a state-of-the-art lab, young people create multi-media slide shows about their community, conduct videoconferences with others,

and operate computer service businesses creating and selling Internet home pages for local and national clients.

Technical Learning Centers and Schools. The Foundation for Educational Innovation (FEI) created a Technical Learning Center in a Washington, D.C. middle school and took students on "virtual visits" to distant museums. Over the course of the project, students participated more and more interactively. FEI developed a three-stage model for integrating virtual visits into a science curriculum.

The Tri-State Network Project of Jackson, MS, showed that an advanced telecommunications infrastructure can help further a community's educational and economic goals. The Tri-State Project assists development initiatives in rural Alabama, Mississippi and Tennessee.

Charlotte's Web, a regional computer network spearheaded by the Public Library of Charlotte and Mecklenburg Counties of North Carolina, demonstrated that schools, libraries, police and fire departments, and community groups can work together to create an electronic information system residents will rely on and use. Classrooms use the educational resources of the Internet and residents search job listings, access a comprehensive weather service, and discuss regional issues on-line.

The Inland Northwest Community Access Network (TINCAN), based in Cheney, WA, has shown that residents in isolated areas can access local and national networks without high costs. TINCAN, a community network, provides six counties in eastern Washington and one in western Idaho with local free-net and access to the Internet.

The United Neighborhood Houses, a settlement house organization, demonstrated that a small social service organization with a tight budget can use the same technology as large corporations to improve delivery of services and efficiency of its workers through a network.

Telecommunications Uniting Native Americans to Develop Rural Alaska (TUNDRA), in Bethel, AK, demonstrated that rural groups can overcome the cost of the "last mile" in delivering services. Working with a consortium of organizations, TUNDRA reduced the cost of reaching a network in western Alaska, allowing people of the Delta region to access the Internet and communicate with other native villages.

SmartCities, a project of the Kansas City

See **Telecommunications**, page 8

