

**TIIAP FY 1999**  
Project Narrative

West Virginia University Research Corp.

Grant # 54-60-99032  
Community Networking  
Morgantown, West Virginia

## Nonprofit Collaboratives to Facilitate Rural Community Networking

### PROJECT DEFINITION

#### **Identified Problem**

West Virginia communities and rural areas serve as a laboratory for rural America. The state unemployment rate was 5.9% in October 1998. In 1994, 16.2% of WV youth dropped out of high school (West Virginia Kids Count, 1997). Only 66% of WV women over age 25 in 1990 held a high school diploma and only 11% held bachelors degrees, compared to national averages of 75% and 18% respectively. About 14% of WV men over 25 held bachelors degrees in 1990, compared to 23% nationally. In 1993, West Virginia ranked 48th of the 50 states in the percentage of adults who had completed high school. Having the lowest median income in the nation in 1998, many among West Virginia's citizenry are presently excluded from participation in informational and technological growth. Falling behind technologically, rural areas will become truly second class to urban America. Meeting this population's needs is a multi-layered challenge. Particular problems include:

- West Virginia's rural families, low income families and TANF clients experience exclusion from informational and technological access with this exclusion being a major barrier to their present and future self-sufficiency.
- Local labor pools in rural communities lack informational skills and technological literacy.
- West Virginia's long-term problems of poverty and educational gaps impact community well-being and economic development and are exacerbated by lack of access to information and technologically supported networking.
- Rural towns and small communities need skilled leadership for economic development and informational and technical expertise to extend to their constituencies.
- Rural communities and small community organizations in non-profit human and social services lack active participation in the transition to an information and knowledge-based economy.
- Upper and mid-level managers in nonprofit agencies statewide have identified needs for technology access, community economic development, and community networking skills, particularly those with budgets under \$100,000 which are reported to represent 50% of existing agencies (Appendix A).
- Of the 3800 nonprofit social services agencies (501{c}3) in West Virginia, most are equipped with some type of computer but at least 60% lack network capacity and internet access.
- Per capita population, West Virginia is a leader in distance technology and informational hardware but lacks individual and community-based user education for access and participation.

**The primary focus** of this proposed project is Community Networking and will assist a broad range of nonprofit organizations in building capacities for informational and technological access

throughout rural counties and isolated regions. Utilizing the state-of-the-art Distributive Training Technology Site, scheduled to open by July, 1999, in the School of Social Work and Public Administration, is one of the West Virginia National Guard Distributive Training Technology Sites (see map, Appendix B). This proposed project extends information and technology to communities, administrators, and community citizens. The Governor's Cabinet on Children and Families' Family Resource Networks, Multi-Cap Community Action Against Poverty, Inc., and surrounding nonprofit organizations will be invited to enter Nonprofit Management Administration Certification and reach new levels of community networking, management, funding and community education capacities, and mentoring for community networking. Located in each county, non-profit managers from these agencies will have first priority for admission to the Nonprofit Management Administration Certificate and will be instrumental in the distribution of informational and technical skills. Appendix G lists courses for this certificate including courses in: finance, budgeting, leadership, web site development and management, and human and social service delivery via telecommunications.

**The secondary focus** of this proposed project is Education, Culture and Lifelong Learning. The media for delivery, components of the DTT site, will extend preparedness and learning readiness via computer-based learning, two-way audio-video communication and technological networks, including list serves and web-based communication, to at least three groups of approximately 10,000 end users. End users include: (1) middle-and upper level managers of nonprofit agencies in each of 55 counties, a population of about 3000, (2) community-based service providers statewide in social service agencies including welfare, health, education, community action, employment and corrections agencies, currently 7,000 receive mailings for continuing education from the Division of Social Work, and (3) West Virginia children and families, including welfare-to-work clients, WV National Guard members and families of about 3000 families; and rural elderly and retired who participate in senior and community centers. These end users will be registered, entry-level knowledge and access will be identified, and follow-up evaluation will be conducted with this population.

### **Proposed Solution**

Together, the overall focus can contribute to building and strengthening partnerships and collaboratories at community and state levels. The School of Social Work and Public Administration and collaborative partners will extend educational, informational, technological and networking resources to the state's nonprofit human and social service agencies in association with local Family Resource Networks, which are structured in four regions, and provide planning and coordinating functions in social services. Identified needs for technical, management and development skills will be met through distance delivery of credit and non-credit courses and training for management of nonprofit agencies, electronic community meetings, project web page, funding notes bulletin boards, list serves, and education for accessing available public facilities and electronic training media. The project will:

- Engage members of the project collaboratory and interested nonprofit agency managers in strategic planning phase for the first six-months of the funding period. Advisory board will be constituted, organizing activities, planning for implementation, development of demographic profiles for non-profit agencies' training needs will be accomplished, and recruitment for initial courses along with public awareness of the project will be part of a media campaign.
- Develop demographic profile of nonprofit agencies including personnel training needs, funding sources, technological and informational resources including access capacities.

Although most are equipped with some type of computer, about 60% lack network capacity and internet access and have serious need for data collection and management skills. Access to telecommunications centers in communities will be profiled and will include county libraries, hospitals, businesses, and agencies. County-based data of technology availability will be entered into a data base as baseline information. Where lack of access is identified, refurbished computers from Community Action Agencies will be sought, a resource available from CAC's funding efforts in partnership with the WV National Guard.

- Reduce informational and technological exclusion for many by training West Virginia's citizenry in their communities through the county-wide network of nonprofit human and social services agencies.
- Recruit nonprofit agency personnel for participation in Non-Profit Administration Certification to develop technological, communications, and planning skills of middle and upper managers in the 3800, 501(c) 3, nonprofit agencies. Many of these agencies are at risk of continued lack of access to information and knowledge-based economic opportunities.
- Extend two-way interactive, audio-video communication, interactive computer training and mentoring for agency and community managers.
- Establish planning and implementation model with matching and consulting collaborative partners including: Matching Partners: School of Social Work and Public Administration at West Virginia University; Software Valley Corporation, Inc.; the West Virginia National Guard; WV Governor's Cabinet on Children and Families; Multi-County Community Action Against Poverty, Inc.; and Governor's Office of Technology (See Appendix C –Matching Partners; Appendix K – Letters of Support and Matching Commitments; and the Statement of Match which follows the Budget Narrative.

Consulting Partners to the Collaboratory: Public and nonprofit, West Virginia University units including Office of Extended Learning, Cooperative Extension Service, Information Technology, and other related programs. (See Appendix D).

- Provide major access to real-time, two-way conferencing sites less than 2-hours driving time for most residents and bring information for accessing web-based training modules to desktops in community centers, nonprofit agencies, and homes statewide via WVU's West Virginia National Guard Distributive Training Technology (see Appendix B). The site includes 18 interactive computer stations as well. All ATM, two-way conferencing will be WVARNG and university and college sites. Twelve sites are to be in operation by 9/30/99.

### **Project Outcomes**

- Rural community participation in technology-based networks to support life-long learning for workers living in rural communities and small towns.
- Comprehensive demographic profiles of nonprofit agencies technological infrastructure and preparedness for internet access and changing global information.
- Train at least 80 nonprofit agency managers via two-way interactive multimedia training and conferencing in West Virginia utilizing 10 ATM sites during the life of the project.

- Free access, up to 50 hours, in Years 1, 2 and 3 of the project life, network use for nonprofit organizations and community networking purposes to include interactive video-conferencing and computer –based applications.
- Multi-media delivery of continuing education courses in nonprofit management, professional development in human services, chat rooms and list serves for nonprofit agency personnel, welfare-to-work families, and other community end users.
  - Identification of benchmark achievements for new directions, ongoing progress and sustainability utilizing targeted milestones in timeline, Appendix E, as measurement points
- Nonprofit management mentors assigned to work with smaller agencies and rural communities to build greater self sufficiency and economic development for small towns and communities through computer-assisted access to information on housing, child protection, parenting, budget management, computer literacy, employment counseling and job referral, nonprofit agency development and regional economic growth and regional and national peer-agency information.
- 10,000 end-users in homes, organizations and communities throughout West Virginia for informational access, community building, economic development, and technology utilization.

### **Three Year Implementation Plan**

#### Project Year I:

An advisory team of the collaborative members will be established to advise the project staff. This board will meet at least quarterly. Demographic data will be generated to identify nonprofit agencies and their technological and economic development resources and needs. Nonprofit agencies will be invited to participate in training and instructional opportunities, including for-credit courses and selected training opportunities in nonprofit management via telecommunications delivery. FRN Region I (Appendix F) agencies will be involved in establishing community networking model including list serves, web access, and regional need identification for technology and development agencies so that linkage occurs among nonprofit agencies statewide. Eighty hours of nonprofit management training and education will be conducted (Appendix G). During the first year of the grant, advisory and planning groups will familiarize public and nonprofit agencies in the state with the distance education capacity of the Distributive Training Technology (DTT) Site and provide training to agencies to utilize sites throughout the state. It is expected that public and nonprofit agencies will utilize at least 100 hours of DTT multi-media capacity per year (50 provided by this project). Year 1 will establish a model for community networking in FRN Region I that will be extended statewide in Year 2.

#### Project Year II:

All components of Year I will be extended statewide via FRN Regions II, III, and IV (Appendix F) with the addition of community network and economic development mentoring to occur, i.e., nonprofit management mentors will be assigned to work in less developed organizations. In Year Two, the video-training and conferencing activities of Year One will continue and a capability for inter-agency collaboration will be added through a program of two-way interactive video conferences between the partners in this collaboration and other nonprofit and public services in the state. Electronic town meetings will be held. Participants at all sites participate in a formative evaluation of the project to that point.

#### Project Year III:

In each of four regions, non-profit administrators and mentees will work collaboratively in agency-community-university partnerships to develop funding opportunities and technological opportunities, generating 3 proposals for funding from each of the 4 FRN regions. Each of these phases will involve data gathering, demographic and agency profiling, community network development and identification of such electronic network development, regional and statewide conferencing, and dissemination of progress of informational infrastructure development and utilization. Training seminars, electronic community meetings, and regionally electronic utilization will be continued, at higher levels than in either Year I or Year II of the project. Because of the innovative nature of this project in the context of social work and human services, there are a large number of unknowns which may affect the implementation of this effort. The partners in this effort are committed to accelerating the pace of development and implementation of the effort wherever and whenever possible. For example, should it become feasible to conduct a multi-site electronic conference involving remote DLN sites in the first year of the project, we will do so.

### **EVALUATION**

The overall project goal of building community networking capacities throughout rural counties in an underserved and historically poor state will be accomplished through specific activities listed in Project Outcomes at the beginning of this proposal. Collection, organization, and analyses of data for formative and summative program evaluation, grounded in an extensive measurement effort initiated in Year One of the project, will be a major and on-going activity.

(1) Pre-post profiles of end-users: Software Valley, Inc., and WV National Guard will assist in developing a data base, along with the Governor's Office of Technology of technology access for communities and for end users. Research design, pending funding of this project, will involve a sample of WV citizenry and will identify population demographics along with education, technology access, technical skills and information, and long-term interests in lifelong learning.

(2) Access: The numbers of individuals, households, training activities and courses taken, telecommunications conferences held, community centers involved, increase in percentage of computers in community centers, agencies, and end-users will be documented.

(3) Electronic counts: Technological assistance will be sought to establish counts of actual system access by numbers of end-users, involvement in chat rooms and list serves. Self-paced learning and utilization of job-preparedness software will be measured by actual computer count reports electronically generated. Assessment of progress and accomplishments of nonprofit managers in training and service as mentors will be measured by products identified by participants of the projects and will include activities such as increased use of technology for agency development and training, budget capacity growth, and funded proposal development and submission.

(4) Quantitative and qualitative impact: Public and nonprofit agencies will continue to enter the collaboratory as evaluative partners responding to preliminary reports and ranking major achievements in a statewide, electronic town meeting carried out to demonstrate further the capabilities of this effort. Pre and post evaluation of computer literacy will be conducted with a sample of end users, and a qualitative study of impact in rural households of this project will be conducted with a small sample. Demographic profiles and usage rates will be reported and will include bivariate and Likert Scale responses to identify user response to technology utilized, to gaps and resources identified, and to particular attributes experienced.

(5) End-user satisfaction: Customer satisfaction inventories will be generated from end-users and will include life-long interest scale as well.

(6) Overall impact: Pre and post evaluation of computer literacy will be conducted with a sample of end users, and a qualitative study of impact in rural households of this project will be conducted with a small sample. Demographic profiles and usage rates will be reported. A qualitative study involving 4 hours of structured interviewing of 2 staff and 2 consumers in 10 community centers will be conducted to determine the impact of the project and their interaction with technology on the quality of life. Inferential data analyses will be reported as appropriate.

(7) Process and content of implementation: Steered by Advisory Board, formative and summative program evaluation will assess the process and content of program delivery and its overall success. Formative evaluation will be treated systematically and fed back to inform project delivery and program response to identified needs and opportunities for improving programming and determining appropriateness and timeliness of project milestones defined and achieved. All project evaluation will be conducted by project faculty and experts external to the project. Measurements, statistical sampling, data collection, data management, data analyses, and findings will be protected for reliability and validity. Satisfaction and retooling of the proposed project's substance and delivery process will be reported.

### **SIGNIFICANCE**

In the arena of high technology "state of the art," "rural," "human service" are terms which are seldom used in the same sentence. Rural areas and human services have lagged notoriously in their respective technology adoption curves. Yet the partners in this effort are committed and having the knowledge, experience and track records of solid accomplishment to bring the project to fruition. West Virginia University is a public, land-grant university with an enduring mission of providing teaching, research and service. The School of Social Work and Public Administration is a pioneer in professional education for rural practices and non-profit agencies. Software Valley promotes solid public-private partnerships for economic development and creative business adoption of technology. The West Virginia National Guard is an established presence in communities and among workers and employers throughout West Virginia and links with national DTT Sites. The Governor's Cabinet on Children and Families supports agencies in every county in the state. Local funding and jurisdiction are part of the Governor's effort to generate community competence and preparedness for training, education, and employment. Delivery of distance education through Asynchronous Transfer Mode Switch (ATM) directly to the rural community classroom, agency, and community library will become a reality in this project. Multi-County Community Action Against Poverty, Inc., serves counties in central West Virginia and has a major focus to deliver services to communities within designated enterprise zones including the Upper Kanawha Valley Enterprise Community along with the Central Appalachian Empowerment Zone serving 5 counties (see Appendix C for support and service statement).

Serving as a rural model, West Virginia is a national leader in its installation of sophisticated technological transfer systems. Targeting community preparedness of its population for technological information and infrastructure usage is important to West Virginia just as it is to the nation's population as we learn to participate in the world's changing communication system. Building on state, regional, county, and community dispersion of information and technology, this proposed project can be effectively and efficiently replicated, and principal investigators and partners involved will serve as capacity and development consultants to such end.

## **PROJECT FEASIBILITY**

Feasibility stems from commitments of project partners to bring efficient, effective high technology distance education capabilities to rural West Virginia. The project's feasibility is based on deployment of the DTT and other two-way interactive video sites around the state; and development of capacity to teach utilizing this resource among the faculty and various adjunct instructors as well as the community-based managers and mentors.

### **Technical Approach**

The proposal takes resources of DTT, WVU, and Software Valley to the nonprofit agency sector and community levels. The current WVU network is based on a campus-wide fiber optic network capable of transporting high-speed data, video and voice communications. WVU was a pioneer in the implementation of ISDN. Campus ethernet LANS connect to the internet via WVNET, one of the earliest statewide electronic networks, and on to SEPSCOR through T-1 and ISDN lines. (See Appendix H for a fuller explanation of the technology configuration at WVU). Interoperability is already in place through university linkages and DTT sites in the state and will extend to colleges, businesses, hospitals, medical schools, and public and nonprofit human services in the state. All video teleconferencing systems interconnect. This project proposes to utilize and further develop state of the art networking technology to enhance the communication infrastructure and human capital of a small, rural state. The project is highly scalable with more than 30 potential delivery sites in the state, including colleges, hospitals, and industry.

### **Applicant Qualifications**

With the advice, support and resources of the other units of West Virginia University, the School of Social Work and Public Administration is well prepared and qualified to undertake this collaboratory and brings expertise of West Virginia University such as the Office of Extended Learning, Cooperative Extension Service, Department of Computer Science and Electrical Engineering, and Office of Sponsored Programs to the purpose of this project. The project team includes the assistant dean of the School of Social Work and Public Administration who directs nonprofit management curricula, and has served the state in multiple public and nonprofit research capacities while at WVU for more than two decades. Senior faculty member in the Division of Social Work, the co-principal investigator holds masters and doctoral degrees, has 24 years of teaching, research and administrative experience and has collaborated extensively with non-profit agencies and state and federal funders. Consultants to the project include Drs. R. Lohman, B. Locke, G. Pops, and C. Plein from social work and public administration. All have trained managers in more than 100 nonprofit agencies and hold teaching and research experience, including involvement in projects to bring technology to human services. These faculty will be joined by a project manager with strong credentials in distance education and/or multimedia instruction who will be employed for the life of the project. See Appendices I and J, organizational structure of the project and curriculum vitae for project staff.

An expert advisory committee will operate throughout the life of the project. This will include partners of the collaboratory along with representatives of the Office of Academic Computing, Extended Learning Office, and Cooperative Extension Service at WVU, and other technical experts who may be identified and recruited during the course of this collaborative effort.

### **Budget, Implementation Schedule and Timeline**

Collaborative partners provide in-kind resources to support this project in a timely and cost-efficient manner. Implementation of the project will be supported throughout the as proposed. Scheduled to open by mid-summer, the Distributive Technology Telecommunications Site, a dual,

multi-media classroom with 18 computer stations and audio-video two-way capability is being established in the School of Social Work and Public Administration, WVU. See Appendices E and C for project timelines, letters of commitment, including explanation of matching support

In years two and three, information about this replicable project will be extended to locations having similar interests and will offer a model for other rural areas in at least ten states. The project is sustainable as revenue funding streams will be shifted to organizations desiring training beyond year 3. Continued efforts will target both private and public sources of funding such as the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA) and Department of Health and Human Services, Administration for Children and Families, for delivery of curricula related to child welfare at community and agency levels.

### **COMMUNITY INVOLVEMENT**

In support of community involvement, important partners have joined together to extend learning and application opportunities to rural communities, community networks established in response to state leadership, and end-users in rural and small towns and businesses. Governor's Cabinet on Children and Families has a statewide function to link, network, support, build, and lead partnerships in interprofessional services for health and human services.

A Community Action agency, Multi-Cap, Inc., links with multiple enterprise and empowerment zones and provides a variety of headstart, transportation, and housing services under the direction of managers, many of whom will participate in the project and will lead mentoring efforts in related agencies. Multi-Cap, Inc., is a matching partner. WV Office of Technology supports statewide connectivity and has provided a cash match in support of this effort. Software Valley Corporation, a statewide non-profit company with the mission to promote job growth in WV through the application of advanced technologies will support computer literacy and job preparedness centers with software and expertise. A DTT Site manager will be present for community end-users access to computer hardware and software onsite at the DTT Site on WVU campus.

### **Community Capacity**

It is noted that Family Resource Network Agencies have been established in all 55 counties of WV. Community Action Agency Association has agency members in all 55 counties as well. In West Virginia, this project has the potential to reach 3800 nonprofit agencies and invite planning and professional partners for identified tasks. West Virginia University and the West Virginia National Guard are two of many statewide public institutions in a state widely known for its regional cleavages and localism. WVARNG is consulting collaboratory partner providing an awarded Distributive Technology Telecommunications Site and ready to provide technical support should the occasion arise.

### **Support and Privacy for End Users**

Protecting the privacy of individual clients and maintaining the confidentiality of information are central ethical and legal concerns. Safeguards will be established to prevent the unauthorized use of project data, whether individual or organizational. Controlled site access will accommodate in-service and supervisory sessions and other training sessions.

### **REDUCING DISPARITIES**

Although the United States leads the world in the deployment of advanced technology in government, business and the community, there are great disparities in the actual deployment of that technology. In rural areas, nonprofit organizations and small communities have lagged

seriously behind in the technology adoption curve. Having a history of poverty and being rural, WV is 48th in providing access to technology. Working with the Governor's Office for Technology, Co-Principal Investigators will build a database of existing access skill inventory of a selected sample that will be incorporated into pre- and post-project measures and quantitative assessments.

Located in the center of Appalachia, West Virginia's subcultural disparities associated with poverty and rural isolation have received national attention since the 1960s. Livelihoods have been touched by extractive coal mining and lumbering industries. Folklore, stereotypes and traditional values have influenced the lives of men and women in the region. About 43% of women are employed and represent 37% of the state's labor force. Of women employees, 50% work in service industries. Computer literacy, communication skills, and access to life-long learning are not realities for most rural areas. Pre-post tests will be conducted with stratified random samples of managers, welfare clients, employed adults, rural women, and others to be identified.

This project will assist rural communities. Inadequate information to access technology is removed through community-networking growth in access and utilization. Chat-rooms, list-serves, capacity to access internet, two-way interactive video education and training delivery will be available. We anticipate that in years two and three of this proposal, these and other capabilities will extend across state lines to bring in partners from rural regions of other states.

Faculty in the School of Social Work and of Public Administration have a long history of experience overcoming the barriers to access to service experienced by clients in rural communities, and are recognized principal national leaders in the rural social work movement and management of nonprofit organizations. Through Nonprofit Management Academy, Continuing Education Program and formal course work, new technology has been introduced into the human services community. At least 100 hours in Year 1 in the DTT site will be for use by agencies for inservice training sessions, multi-site meetings and conferences and will be expanded statewide.

This project, a natural pathway to life-long learning, will afford the opportunity to establish baseline data for longitudinal studies for future efforts in evaluating continued involvement in learning. Interestingly, in this rural state, the push toward continued learning, recertification, and participation in global information and networks is recognized, evidenced, and measurable. Students are known to continue as consumers of information, yet, this phenomenon is rarely measured. This project will bring assessment to informational access and utilization.

## **DOCUMENTATION AND DISSEMINATION**

### **Project Dissemination**

Information on this project will be disseminated to three distinct communities: the West Virginia University community, informing other departments and units of the two-way interactive video/multi-media classroom approaches to off-campus education; citizens and community leaders of the state of West Virginia and collaborating states; and the professional communities interested in human services, primarily social work, public administration and research in nonprofit organizations. Dissemination of project implementation and outcomes will be shared at professional conferences, in both invitational and refereed arenas. Media coverage will be sought for visibility throughout West Virginia and the nation. Scholarly and professional journals, news articles, web-based reports, and national and international list serves with nonprofit organizations and electronic media such as web-based publications, discussion lists and chat rooms will be used as means for broad dissemination.