Project Purpose

The rural counties of northeast Tennessee share common characteristics of economic depression: per capita income is low ($13,794, half the US average, in the 5 counties of the Clinch-Powell Enterprise Community: Hancock, Hawkins, Grainger, Claiborne and Union) and many people are poor (31.6% in these same counties.) The rugged terrain makes it difficult to attract and keep industry, and the nationwide problems of small farms are being compounded by the rapid decline of tobacco farming - a 65% cut in tobacco allotments in the last 5 years alone - a key source of income for the region during the last 50 years. The dearth of industry has also meant that most local economic activity, including agriculture and forestry industry, has focused almost exclusively on primary production with almost no processing of tobacco or timber to create a value-added product and provide another source of revenue for poor communities.

Given this situation, Jubilee Project -which began in Hancock County 12 years ago - made several strategic decisions on how to promote economic development. It began focusing on developing small businesses: beginning a handicraft cooperative 10 years ago, small business training 9 years ago, and establishing a small business incubator in 1997. In 1999, the increasing crisis in agriculture led Jubilee Project to begin developing a shared use commercial kitchen for the production of gourmet, specialty and natural foods for high-end markets. In 2003, the kitchen is entering its third year, having processed over 22 tons of food in the last year for 12 different businesses. But significant barriers exist to the success of this economic development effort. Most growers, working full-time low-paid jobs in addition to growing tobacco or raising cattle, are reluctant to take the risks involved in starting a small business. To make it easier to get started, Jubilee Project has put together small business training, loan programs, and is now proposing a major tool to help these businesses: a cooperative of food product businesses. Appalachian Spring Cooperative, a member-owned agricultural cooperative of 40 food product entrepreneurs from a 10-county area of northeast Tennessee and southwest Virginia, is enabling very small startup businesses to work together to save money on purchases like containers, insurance and product labels, and, most importantly, to market their products together. If they can coordinate efforts to provide a range of products, as a single larger company can do, they greatly increase their chances of reaching larger markets. But the same rugged terrain and widely dispersed communities that make other forms of economic development difficult are problems for this food product cooperative as well. Finally, rural small businesses of this kind, especially those based at home as most of these are, face problems of isolation, sourcing, need for legal information, marketing, lack of credibility, and difficulty integrating technology in their businesses (according to a survey conducted by Dr. Beth Duncan, Small Business Specialist, Mississippi State University Extension and reported in April 2003.)

The solution we propose is 3-fold: First, we would establish a system enabling the food product small businesses which are members of the Appalachian Spring Cooperative to collaborate over the Internet; this also means providing them with Internet-capable notebook computers at their offices (in most cases in their homes) in exchange for a signed agreement to attend both initial and regular training programs at one of four Appalachian Technical Education Center (ATEC) computer centers in each of four counties (Hancock, Hawkins, Grainger, and Claiborne); to use
the computer to participate in a minimum level of Cooperative activity; and to bring the
notebook computer in at regular intervals to one of the ATEC Centers for maintenance and
further instruction in participating in the online Cooperative community. One method for this
collaboration system is further development, based on input from Cooperative members, of an
Internet office website where members of the food product cooperative can share calendar and
production schedules, information on orders and order fulfillment, spreadsheets on finances and
inventory, and conduct the formal and informal business of the Cooperative. Second, working
with the Cooperative members as well as experienced consultants, we would establish an
e-commerce strategy for the Cooperative, which would combine the existing Cooperative
website product catalog with shopping cart and credit card capability. Third, we would try to
overcome the geographic and time barriers which keep many entrepreneurs from attending small
business classes, by providing a resource in CD-ROM and web-based form, that would include
the same material covered in Jubilee's small business courses. This would allow the entrepreneur
to cover the material at their own rate and times, at minimal expense, and to email questions to
be answered or parts of their business plan for critique. The business incubation staff of Jubilee
Project would answer or critique these materials, passing them on to experienced business
mentors when appropriate for them to answer either directly or if wished, through Jubilee
Project. This part of the project would benefit not only food product small businesses, but any
small businesses that wished to participate. We believe these measures will increase the success
of small businesses in northeast Tennessee, and particularly the food product small businesses
we work with by strengthening the food product Cooperative as an important tool to help
members reduce costs, reach larger markets, help each other fulfill orders, and learn from each
other to improve their businesses and their ability to compete in the marketplace.

Innovation

This project uses inexpensive hardware, software, and services available on the Internet to do
something very innovative: strengthen the ability of very small businesses to succeed by
cooperating with each other. Despite their obvious potential, establishing successful cooperatives
is a difficult task, since it requires an unusually high level of commitment to the cooperative
venture. Successfully establishing a cooperative of this kind is almost impossible in a rural area
(Jubilee Project has many years of experience helping to keep a craft cooperative going) where
an already difficult process easily bogs down given the distance and time involved in getting
together for collaborative endeavors. But now the availability of inexpensive, easy-to-use
technological tools for expediting communication among Cooperative members gives new hope
for cooperative ventures as a way to increase the odds of success for small rural startup
businesses. The low cost of Internet access, ease of email and file sharing, and accessibility of
collaborative sites like Internet offices hold great promise if these small rural businesses can be
persuaded to make the plunge into using these technologies.

For example, Bill D., a full-time fruit and vegetable producer and manufacturer of value-added
specialty food products, determines on a Monday that his strawberry production for the week
will exceed his capacity for either fresh-market sales or value-added production that week. From
his laptop computer, via an Internet access point in the packing shed, he communicates via email
or instant messaging to his co-packer at the food processing facility the number of units of
strawberry jelly that he wants to produce that week; places orders with vendors for the required
quantities of packaging, labels and secondary inputs; posts a notice to the "Marketplace" page on the Cooperative website that he has excess strawberry production available for sale or trade to other Cooperative members at a price he determines by accessing the current day's market price for strawberries from a web-based crop price reporting service. Estimates of crop volume and jelly production are entered into a spreadsheet application for comparison with actual production figures at the end of the week.

The technology proposed for distribution to qualifying Cooperative members (i.e., state-of-the-art laptop computers with integrated wireless capabilities) has been selected to ensure reliability, capability, mobility, and capacity for integration with currently-owned desktop PCs and existing and future wireless communication networks in the region. Factory-installed Windows XP Professional operating systems and MS Office XP for Small Business applications will enable maximum productivity for users; built-in Intel Centrino wireless (Wi-Fi) capabilities will ensure ease of integration with state-of-the-art wireless networking systems, such as those proposed for deployment by project partner, Appalachian Technical Education Center, and will enable "hot spot" access to the Internet for those members who do not have residential phone service or access to broadband Internet services. Internal 56K modems and Ethernet cards will support access to the best available Internet service options for each user.

Add-on items such as auto/air adapters will enable usability of the equipment provided, even by those members lacking residential electrical service. Laptop-to-PC docking stations will enable, if desired, integration and synchronization with existing PC applications and data storage media.

Digital cameras proposed for the project are intended to enable efficient and high-quality maintenance of the Cooperative website product catalog and production of professional-quality promotional materials for Cooperative marketing efforts. A camera available for loan to Cooperative members will provide the same capabilities for the development of member businesses.

Cell phone service contracts for Coop staff members (two of whom spend substantial amounts of time in the field in the course of their work) will facilitate communication among staff and between staff and member-clients. A cell phone with service plan will be available on an as-needed basis for use in business development by Coop members who do not have residential phone service.

The handheld PC with integrated cell phone proposed for use by the Project Coordinator will serve two purposes:

* It will enhance the Project Coordinator's ability to communicate with members and project service providers in a timely fashion, regardless of location, as well as provide mobile wireless Internet access for assistance to members with sourcing and access to web-based business development and management tools.

* It will serve as a means to test the capabilities of integrated wireless PC/Cellular communication systems, something we see as the probable next step in access-to-technology programs for rural areas like ours.
It is proposed that the Tele-Guild project will provide Quickbooks Professional accounting software to each Cooperative member qualified to receive a laptop computer (with training provided by ATEC) for use in individual member business development and business bookkeeping/accounting. A standardized accounting package such as Quickbooks will facilitate ease of training and enable the eventual development of a member-to-member mentoring program in this critical area of business management.

It is also proposed that the Cooperative be provided with e-commerce capabilities for its website product catalog and the ability to accept credit cards as payment for its products in all sales venues via subscription to the Intuit/Quickbooks E-Commerce service, which will integrate seamlessly with the Coop's existing Quickbooks-based accounting system. We envision that this integrated e-commerce/accounting system will serve as a model for individual member businesses as their growth reaches the point of justifying the addition of credit card payment/e-commerce capabilities.

Adobe Acrobat 6.0 is proposed for use by Coop staff for production of formatted promotional and educational/training materials which can be easily accessed using (the freely available) Adobe Acrobat Reader.

A current version of MS FrontPage (FrontPage 2002) is proposed for use by Coop staff for maintenance and development of the Cooperative website (which was created using an earlier version of FrontPage) and to facilitate the design and construction of individual member business websites hosted by the Cooperative's web server or by other web presence providers.

The Cooperative currently maintains a website at www.apspringcoop.com, which consists of both a public-access area (which includes the Cooperative product catalog) and a member's section for access to Coop documents, a chat room for online discussion, a marketplace for member-to-member labor and product exchange, a links page to online resources for food business entrepreneurs, and a calendar of Cooperative activities and events.

It is proposed that, in addition to the goods and services supplied by the Tele-Guild Project, each qualifying Cooperative member business will be provided with a low- or no-cost personal/business website hosted by the Cooperative's web server and one or more web-based email accounts for business use. Traffic logs will be used to determine the rate of use of these member websites and email accounts, with some minimum level of use required for continued service.

Current plans for further development of the Cooperative website's member section include the addition of file transfer (ftp) capabilities (e.g., business plan templates, spreadsheets, business form templates, and Cooperative publications); expanded member-to-member exchange and mentoring services; capabilities for Internet broadcast trainings and workshops for members; and capabilities for the Coop website to serve as a portal to third-party business support services such as the Tennessee Farm Bureau ACRES program and Pennsylvania State University's Resources for Small Food Processors and Potential Entrepreneurs, to name just two.

Likewise, our choice of one innovative economic development strategy for farming areas -
promoting value-added agriculture - opens up another market to remote small businesses: the Internet, where food sales of $200 million in 1999 are predicted to mushroom to $8.8 billion in 2004. And the majority of online food sales are of high-profit value added food items, including the kind of salsas, jams and jellies, and pickled vegetables which the food product small businesses we work with are interested in producing.

Finally, the low cost of CD-ROM production now gives economic developers interested in promoting entrepreneurship trainers another tool to overcome the geographical and time barriers that reduce class numbers and increase drop-outs from small business classes: the opportunity for entrepreneurs to learn the material at their own rate from remote locations, and to contact the teachers when they want further explanation, critique, or information. In our particular case, the entrepreneurial training we have developed is customized for the low-literacy and low-income participants we serve.

**Diffusion Potential**

While only a few rural communities may choose to develop a shared-use commercial kitchen incubator as a particular way to help small businesses, many rural communities are reaching the same conclusions we are about the importance of some kind of small business development to replace declining agriculture or departing industries. Half of all U.S. small businesses are home-based, and this is the fastest growing segment of businesses in the U.S. economy at 10% per year. Helping these small businesses become stronger by forming cooperatives, business associations, and other collaborative structures and networks is a logical and promising strategy for rural entrepreneurial development. While about 80% of business startups fail, that percentage is reversed for business incubation programs like the one proposed, and for home-based businesses which this project also involves. By the very nature of being rural, many communities face similar problems of geographic barriers that might doom this already difficult task, without the technological tools that this project proposes to showcase. Cooperatives can work in urban areas too, and we hope to show that these same tools can help them work better. While much is known about e-commerce, not as much is known about designing e-commerce for the particular case of cooperating associations of businesses.

Likewise, the potential of entrepreneurial training tools designed to give persons who, because of their rural isolation or for whatever reason, lack access or time to follow through on business training and planning, holds promise for many economic development projects.

We plan to disseminate the results of this project on (1) a website to be created and linked to the existing Appalachian Spring Cooperative website, (2) on CD-ROMs which will be produced to share the experience of the Clinch-Powell Community Kitchens with other communities interested in exploring the possibility of starting value-added food product projects, and (3) at conferences of micro-enterprise practitioners, such as the annual conference of the Association of Enterprise Opportunity.

**Project Feasibility**

All of the technology proposed by this project is off-the-shelf, inexpensive, and easy to learn and
use. The technology proposed is also easily expandable, upgradable and transferable, in the case that success encourages more food product small businesses to join the Cooperative. As food product cooperative members succeed in their businesses, they can afford to purchase their own computers and project-provided equipment can be passed on to newer members of the Cooperative. The project will train entrepreneurs on software (Microsoft Office for Small Business) that is so widely used it will allow them to share files and information easily, not only with each other, but with potential and actual buyers, and others. The choices made will allow inexpensive password protection of sensitive business information shared with the Cooperative. During the planning stage, we considered handheld computers or PDA-type devices. We discarded these alternatives as more difficult for our participants to learn and use, and less conducive to sharing calendars, spreadsheets, and other tools at the center of our strategy. We also considered the idea of wireless networking, but many in our mountainous area are out of the reach of cell phones or pagers, and the high cost of satellite-based networking did not seem economically sustainable.

Various partners in this project bring essential expertise: Kevin Liska, the Director of the Business Media Center at Tennessee Technological University has agreed to be the chief technical advisor to this project, with his significant expertise and proven ability in creating successful e-commerce sites and in designing web- and CD-Rom based training programs; James Dudley of James Dudley Consulting and David Abraham of David Abraham Consulting bring experience in the design and implementation of corporate and organizational networking and training systems: Jubilee Project, Carson Newman College, and the Small Business Development Center have proven ability in teaching entrepreneurship and assisting with award-winning business plans; The Clinch-Powell Enterprise Community and the Center for Profitable Agriculture sponsored by the Tennessee Farm Bureau and University of Tennessee Agricultural Extension Service are contributing serious work in innovation in economic and agricultural development; Appalachian Technical Education Center (ATEC) will contribute invaluable experience in training residents of our rural communities in the use of modern information technology.

**Project Sustainability**

Inasmuch as the proposed Tele-Guild project is intended to promote the economic success and viability of the Cooperative and its individual member businesses, sustainability beyond the life of the project and the economic resources to achieve this are expected to derive primarily from the Cooperative's revenue streams from product sales and fee-for-service programs such as product label printing and business website design.

Coop members who qualify to receive goods and services provided by the Tele-Guild Project will be encouraged but not required to consider "passing on the gift" by relinquishing currently owned desktop computers in exchange for a (probably better) laptop computer so that the relinquished PCs could be passed on to other Coop members who do not presently qualify for participation in the Project and who do not currently own a home computer.

These pass-ons will be incorporated into the Coop's on-going "Connections Project", which distributes, free of charge, donated personal computers to Coop members who do not already
possess one, or who are in possession of outmoded or poorly functioning machines.

While the resources provided through the Tele-Guild Project will be limited to distribution to qualifying members, passing on the gift of no-longer-needed PCs will enable achievement of the "Connections Project" goal of providing every Coop member with basic home/home office access to a personal computer and connection to the Internet. Moreover, as food product cooperative members succeed in their businesses, we expect that some will be able to afford their own computers, enabling project-provided equipment to be passed on to newer members of the Cooperative, beyond the life of the Tele-Guild project.

Similarly, we expect that Tele-Guild Project partners and the services they provide will be available beyond the term of the project on either a voluntary or fee-for-service basis. Indeed, many of them have already made long-term commitments to the Cooperative to provide no-cost mentoring in their areas of expertise to Cooperative member businesses.

**Community Involvement**

In addition to the above partners, the Hancock County Industrial Board and 17 local small businesses have already expressed enthusiastic support for helping with this project, with business mentor services and in other ways. In late 2002 and early 2003, Jubilee Project and the Appalachian Spring Cooperative have surveyed local farmers, and determined significant interest in the project: 30 existing or prospective food product small businesses from a 10-county area have indicated interest in the Kitchen and in cooperative ventures related to it, even before recruitment for this project begins. Extensive community surveys taken in 1994 and 1998 during Empowerment Zone applications show substantial interest in innovative economic development of this kind; community reaction to the Clinch-Powell Community Kitchens has been extremely positive, and the Representative to the Tennessee State Legislature from this area has invited the Project Director to present the project to legislators at the State Capitol.

**Evaluation**

The evaluation of this project will be carried out based mainly on data collected initially by the food product Cooperative itself, and compiled and analyzed by Lindy Turner, Executive Coordinator of the Clinch-Powell Enterprise Community. It is proposed that at the outset of the Tele-Guild Project a survey will be administered to Coop members who qualify for receipt of goods and services to determine current attitudes about Information Technology and its application to business development, as well as to determine initial levels of proficiency with both hardware and software proposed for the project. This survey will be used to identify necessary areas of focus for training provided to project participants.

The survey will be re-administered at 3 to 6 month intervals for the duration of the project, with an expanded version administered at project conclusion designed to assess the success (or lack thereof) of the program and the methods employed in its implementation.

At every stage of administration, the surveys will be designed in such a way as to determine the information above, as well as the degree to which the participants feel that the Project and the
goods and services provided have assisted them in the development of their individual businesses.

A similar survey, re-administered at similar intervals, will be conducted with Cooperative staff with reference to Cooperative business and marketing development. Project Outcomes, Indicators, Data Collection Methods, and Analysis are outlined below: Project Outcome: Small food product businesses become more successful.

Outcome Indicator #1: Increased profitability of food product small businesses through technologically enhanced business cooperative. #1 Standard: 60% of businesses in food product cooperative report a 20% increase in profitability between 1st and 3rd years. #1 Data Collection: Profit/Loss Statements from each business each year are required for use of Clinch-Powell Community Kitchens and involvement in the Cooperative. #1 Analysis: Compare profit reported on Profit/Loss Statements.

Outcome Indicator #2: Increased sales volumes of food product small businesses through technologically enhanced business cooperative. #2 Standard: 60% of businesses in food product cooperative report 50% increase in sales volume between 1st and 3rd years. #2 Data Collection: Profit/Loss Statements from each business each year. #2 Analysis: Compare sales volume reported on Profit/Loss Statements for each business each year.

Project Outcome: More entrepreneurs served by Jubilee Project and its Clinch-Powell Community Kitchens practice business planning as a result of technological tools which enable distributive, remote-access learning systems.

Outcome Indicator #1: The number of entrepreneurs served each year by the small business training (which is oriented toward business plan preparation) of Jubilee Project increases. #1 Standard: The number of entrepreneurs participating in the small business training program of Jubilee Project increases by 20% from the year prior to the 1st year of the project to the 3rd year of the project. #1 Data Collection: Jubilee Project will record numbers of participants enrolled in small business classes and those emailing in assignments and questions from the CD-ROM-based and/or web-based, self-paced version of the small business classes. #1 Analysis: Compare numbers of entrepreneurs participating in project years to the number preceding project years.

Outcome Indicator #2: The number of times members of the food product cooperative use the collaboration system will increase. #2 Standard: The average number of measurable uses of the...
collaboration system will increase 20% from the 1st year to the 3rd year. #2 Data Collection: Emails, contributions to threaded discussions and quick notes, file and calendar modifications, and other changes to the collaboration system will be tabulated. #2 Analysis: the number of these changes will be compared from year to year.

Outcome Indicator #3: The percentage of cooperative sales attributable to the e-commerce program will increase. In the near-term, this will pertain primarily to retail sales made via the Cooperative website. It is likely that such sales will typically involve modest quantities (though perhaps in considerable variety) of products, which can be shipped to customers cost-effectively via common package delivery services such as the US Postal Service and UPS. Delivery charges (clearly detailed in the website catalog) will be paid by the customer.

In the longer term, strategic plans call for the development of business-to-business sales via the Cooperative website (i.e., sales to wholesale/retail outlets) in larger volumes than can be accommodated by package delivery services. It is expected that distribution of volume sales such as these will be primarily via common carrier freight services. Where possible, advantage will be taken of relationships with partner organizations and businesses for distribution of Cooperative products via channels already in existence, such as the distribution network for Appalachian Harvest products to Food City stores in Abingdon, VA and to markets in northern VA and the Washington, D.C. area, or by backhaul arrangements with potential customers/partners such as the Tennessee Farmers Cooperative. This would entail shipment of Cooperative products to the central TFC warehouse on trucks returning from local deliveries to Cooperative retail outlets in the vicinity of the Cooperative's production/warehouse facility in Hancock County. #3 Standard: The percentage of all food product cooperative sales made through the e-commerce program will increase by 20% from the 1st year to the 3rd year. #3 Data Collection: Sales records will be kept for all sales made through the food product cooperative, including through its e-commerce program. #3 Analysis: The percentage of sales made through the e-commerce program will be calculated for each year and compared.