

STRENGTHENING RURAL ECONOMIES:

Programs that Target Promising Sectors of a Local Economy

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Foreword

Economic success poses its own dilemmas. For example, while the U.S. economy is creating new skilled and semi-skilled jobs at an unprecedented rate, those new jobs are not equally accessible to all Americans, both in terms of where one lives and of the skills and income one needs to claim those jobs. In short, people in rural areas and areas in which manufacturing firms (and jobs) have fled do not have equal access to the new employment; neither do those persons with less skills, less education, lower income. A related dilemma is that, although some communities have arrived at remarkably innovative and successful means, frequently with support from the U.S. Department of Housing and Urban Development, to address the first dilemma, those initiatives have not been systematically described and widely disseminated. As the result, even highly successful initiatives have not claimed wide currency.

The four studies that comprise this effort go some way to addressing the second dilemma. They explore in detail four strategies that have shown marked success in producing and maintaining economic opportunities and jobs and also in making them available to people with low incomes. The four studies were conducted by the Center for Community Change with support by the Office of Policy Development and Research of the U.S. Department of Housing and Urban Development, the Pew Charitable Trusts and its Fund for Urban Neighborhood Development and by the Center for Community Change itself. The four reports are:

Making Connections: A Study of Employment Linkage Programs considers efforts by local governments to leverage their fiscal and zoning powers to gain the commitment of employers to connect low income people with private sector employment. Such initiatives share certain features: They create ties to employers through the use of development incentives and offering employers an expensive system for locating quality employees, provide timely access to information on job opportunities and establish formal means for screening, referring and placing job candidates. In the report, three long-standing employment linkage programs are reviewed to determine how well they link residents of economically isolated communities to jobs.

Saving and Creating Good Jobs: A Study of Industrial Retention and Expansion Programs focuses on programs designed to assist manufacturing firms already in a given location to stay and grow. The underlying presumption is that some manufacturing firms in any locality would prefer to stay, and even expand, if special mechanisms were in place that improve the manufacturer's capacity to compete by providing assistance in such areas as marketing, technology and finding qualified workers. This study assesses the value of industrial retention and expansion as a strategy with particular emphasis on the experience of four organizations for whom that strategy is their principal mission.

New Avenues into Jobs: Early Lessons from Nonprofit Temp Agencies and Employment Brokers explores an economic development model in which job seekers are placed by employment brokers into non-permanent positions where they build work experience while receiving varying degrees of retention assistance and other kinds of post-placement support. The report documents the efforts for six nonprofit organization to help disadvantaged workers gain access to employment through temporary work and surveys the lessons, positive and negative, learned from these local initiatives.

Strengthening Rural Economics: Programs that Target Promising Sectors of a Local Economy examines how a strategy of concentrating economic developing effort on a sector of businesses that are located near each other and share other common features can expand economic opportunities and produce jobs in rural areas. The report describes four diverse cases in which such a strategy has been used at least in part with the intention of increasing employment among low income people – and with some success.

Taken together, these reports, and related studies available directly from the Center for Community Change, offer those in local governments and both non- and for-profit organizations who want to stimulate more and better jobs for residents of their communities insights into the potential for growth implicit in local economic development strategies that can be replicated and customized to meet local needs.

Xavier de Souza Briggs

Preface

Across the country, nonprofit organizations and government agencies are trying new approaches to problems that contribute to poverty, including unemployment, underemployment and low wage jobs. Many of these model projects are highly creative and promising, but they are scattered and seldom evaluated. It has thus been impossible for other organizations or the Federal government to learn from these models in order to adapt and use them elsewhere.

This is particularly unfortunate today, when this country's steadily expanding economy has created a tremendous demand for both skilled and semi-skilled employees. This demand has led to an extraordinary opportunity for low income people with limited skills and job histories to get a sturdy foothold in the world of work.

To help close this information gap about job-related programs that work, the Center for Community Change has prepared a series of reports on four approaches to economic development, all of which are providing jobs and economic opportunities to low income people. Each report is based on a series of case studies of successful local projects, along with additional research and data analysis. Each was done for the Office of Policy Development and Research of the Department of Housing and Urban Development.

All the reports are driven by four key assumptions:

- ◆ **The market has the capacity** to generate jobs and create economic opportunities on a large scale, which public and private interventions can extend but not replace.
- ◆ Mechanisms are needed to make sure that **low income, low-skilled people benefit from these jobs and opportunities** that the market is producing. Too often, these people reap few if any of the benefits of a growing economy. Thus, in selecting programs to study, we looked for those that either directly or indirectly tar-

geted their benefits to those with the greatest needs.

- Efforts to provide jobs and other opportunities for low income people should not focus solely on the neighborhoods in which they live. Instead, these efforts need to **focus on the broader geographic area**, finding ways to connect residents in low income communities with jobs that are located throughout the region.
- Given the tremendous need for decent jobs for residents of most low income communities, efforts to create jobs need to be large enough to have **a measurable impact** on these communities, or at least have the potential to have such an impact.

The primary goal of our research has been to give community-based and other nonprofit organizations — as well as public officials and others concerned about jobs — useful information about economic development strategies that are effective in these ways. We hope this research will stimulate others to adopt strategies that have been developed over many years of hard work, and that it will also lead to government policies that encourage more use of these strategies.

This report focuses on the rural sectoral strategy. This strategy focuses on local businesses, attempting both to save jobs by preventing local firms from closing or moving as well as to stimulate new jobs by helping these firms expand or by creating new businesses. The strategy focuses on certain industry *sectors*, groups of firms that have some commonality, such as a similar product or market.

To examine this strategy, we intensively studied four rural sector programs, picking those that appeared to be successful and thus could function as models. We also studied two additional sites less intensively. One was Itawamba Community College in Tupolo, Mississippi, which has started a Furni

“The primary goal of our research has been to give community-based and other nonprofit organizations — as well as public officials and others concerned about jobs — useful information about economic development strategies that are effective.”

ture Technology Center to help local furniture manufacturers train their workers to compete more effectively. The second was the Arkansas Land and Farm Development Corporation in Brinkley, Arkansas, which is working on ways to add value to the products of local farmers, such as turning fruit into jams and jellies.

For our primary sites, we analyzed local data, interviewed dozens of people at each site, read local documents, studied the existing literature and wrote case studies. We wanted to answer four main questions:

- ◆ How are these programs designed and structured?
- ◆ What have they accomplished?
- ◆ Why have they been successful?
- ◆ How can they be replicated?

The other three reports in this series are:

- ◆ ***Making Connections: A Study of Employment Linkage Programs***, which examines three

programs that try various ways of linking inner-city residents with jobs in the mainstream economy.

- ◆ ***New Avenues into Jobs: Early Lessons from Nonprofit Temp Agencies and Employment Brokers***, which focuses on nonprofits that have used temporary work as a way to integrate low income people into the world of work.
- ◆ ***Saving and Creating Good Jobs: A Study of Industrial Retention and Expansion Programs***, which examines organizations that help local manufacturing businesses save and create jobs.

Taken together, we hope these studies provide useful information for those who want to stimulate more and better jobs for residents of their communities. We also hope they underscore the vital role that the lack of decent jobs plays in the economic struggles of many people living in low income communities.

“Taken together, we hope these studies underscore the vital role that the lack of decent jobs plays in the economic struggles of many people living in low income communities.”

ACKNOWLEDGEMENTS

This report is the culmination of more than two years of research and development. Over the course of the study, many people gave their time and assistance. The Center for Community Change is very grateful to the Office of Policy Development and Research within the U.S. Department of Housing and Urban Development, and the Pew Charitable Trust’s Fund for Urban Neighborhood Development, for providing financial resources to underwrite the research.

In addition to the authors, other researchers participated actively in gathering information about project sites, writing case study reports, and gleaned lessons from them. Center staff member Luis Miguel Vasquez wrote the Ganados del Valle case study and provided valuable comments on the cross-site study. Frieda Molina of the Center was a vital participant as an advisor and colleague who, though occupied principally with another study component, not only helped design the overall study but also frequently challenged us all to tighten our thinking in useful ways. A pioneer in the sectoral development field, Frieda shaped this study in its early stages by forming research questions, selecting sites, and visiting the Alaska Village Initiatives and Hosiery Technology Center.

The research team is especially grateful to the staff of the sectoral initiatives we examined, particularly Dan St. Louis, Ray Daffner, Maria Varela

and Perry Eaton, who, as heads of the sector programs we studied, gave generously of their time and thinking and agreed to submit their programs to close scrutiny, principally so that others could learn about best practices in their fields. We also thank the Arkansas Land and Farm Development Corporation and the Itawamba Community College Furniture Technology Center for sharing information and perspectives with us. In every case, these leaders’ staffs and program partners and clients were similarly gracious.

Special appreciation goes to Andrew Mott at the Center for his consistent support, thoughtful insights and questions, and flexibility in organizing project work to maximize its value. His enthusiasm for the effort and commitment to serving low-income people were key to keeping it moving. He, along with HUD staff Kevin Neary and Todd Richardson, provided valuable comments on drafts of this report. Margery Turner, formerly of HUD, and Andy Mott collaborated in the initial flexible definition of this project.

This report was edited by Tim Saasta, who also managed its production and drafted the summary. His work contributed greatly to the clarity of presentation and content. *Jorge Luis Somarriba created the cover drawing.*

Executive Summary

Despite the urban image of poverty held by many people, some of the poorest parts of the country are rural. Per capita income in rural areas was 28 percent lower than in metropolitan areas in 1995. The poverty rate was 2.5 percent higher.

One big cause is the scarcity and poor quality of jobs in many rural areas. This problem is related to many factors that make business development difficult in these areas, such as the distance from markets, poor infrastructure, lack of access to services (such as legal, marketing and accounting help), lack of access to capital for financing new ventures and expansion, and lack of trained employees.

For years, people have tried to confront the rural jobs problem, trying a variety of approaches. Governments have sometimes provided enormous subsidies to try to entice large businesses to build manufacturing plants in depressed rural areas. Community groups have sometimes tried to help existing, mostly small, businesses. A few have started businesses. Others have started small loan funds to encourage “micro-enterprises,” or created “incubators” that provide office space and services to a variety of small businesses. Results of these rural economic development efforts have been decidedly mixed.

For more than 30 years, there has been growing interest in another approach to rural economic development. This one focuses on a “cluster” of businesses that are located near each other and often have other features in common. Or this strategy focuses on a “sector” of businesses which produces similar products, uses the same raw materials or technology, shares a market or has other similarities. Often these businesses have more than one of these commonalities.

A business development strategy that focuses on a particular sector has many possible advantages:

- ◆ By focusing on one type of business, a sector program can develop a much more in-depth knowledge of that sector’s needs and potential.

- ◆ A sector program can maintain its focus on a clear and limited set of goals.
- ◆ It can be easier to build a strong network among businesses with similar challenges. A network can provide a base for achieving economies-of-scale in serving businesses, making it easier to get enough people to do specialized training, for example. A network can also develop the political leverage to effectively push for resources and policies that can help the sector grow.
- ◆ Focusing on an existing group of businesses allows a program to build on the factors that led to development of these businesses in the first place, such as access to a raw material.

An important question is whether these possible advantages of a rural sector strategy translate to success. Have existing sector programs helped the sector grow, or at least kept a threatened group of businesses alive? If they have been successful, have these programs benefitted low income people, those who most need the jobs that these programs are trying to save and create? And what makes a rural sector program effective?

This study was undertaken to answer these questions. The first step was to choose the sector programs to study. After looking at programs across the country, we selected four. We wanted to study programs that were large enough to have an impact on the rural area being targeted. Because of our desire to identify practical lessons to guide others, we looked for programs that appeared to be effective in creating and retaining jobs, especially for low income people. We wanted to study programs that had existed long enough to have a record. And we wanted programs that were diverse in terms of where they were located, the economic and political conditions that provided the environments in which the programs operated, and the people being helped. We selected:

“Most sector-related strategies have been in the mainstream of economic development, with little explicit concern with poverty or economic opportunity.”

- ◆ **Wood Products Competitiveness Corporation**, an organization concentrating on secondary wood products manufacturing in the Northwest and headquartered in Bend, Oregon. WPCCC has a diverse set of programs and has developed a state-wide worker-training system that affords lower-skilled, low income workers access to quality manufacturing jobs. It is helping save its sector by making it more competitive and export-oriented.
- ◆ **Ganados del Valle**, a nonprofit organization promoting agriculture-based development for Hispanic and Native American families of the Chama Valley in north central New Mexico. GDV was chosen because of its anti-poverty mission and its development strategy, which focuses on business ventures that are culturally-based.
- ◆ **Hosiery Technology Center**, located in Hickory, North Carolina, which supports the hosiery industry statewide. HTC was chosen because it has helped its industry modernize and has developed ways by which low income populations can be linked to its business development efforts.
- ◆ **Alaska Village Initiatives**, based in Anchorage, focuses on culturally-based tourism in remote parts of Alaska. AVI was chosen because of its expertise in sector-based business development and its experience working in extremely remote areas with people who have limited connection to mainstream economies.

History of Sector Strategies

Sector strategies began in the early 1960s, when local economic development officials began to formalize efforts to recruit firms from specific industries, based on their area's comparative advantages. In the 1980s, Japan's economic success led some people to advocate a national industrial policy, which involves the government focusing its re-

sources on certain industries with high potential. While industrial policy proposals died nationally, more states and local governments began experimenting with strategies that targeted key sectors of their economies. These programs provided a variety of services, especially job training and information or technical assistance, often on marketing.

In the 1980s and into the 1990s, various efforts promoted technology modernization in manufacturing, while others focused on ways to retain manufacturing firms that were in danger of closing or moving (“industrial retention”).

In Europe, “flexible manufacturing networks” came into vogue in the late 1980s. These involve many small, related firms working closely together to compete against large firms in international markets. In the 1990s, interest has grown in industry “clusters,” which are groups of businesses located near each other that are in the same business or complementary businesses, such as suppliers for a car manufacturer. Clusters often include many supporting institutions, such as colleges that have programs to train people to work in the industry.

Most sector-related strategies have been in the mainstream of economic development, with little explicit concern with poverty or economic opportunity. They have been used as ways to economically boost *regions*. The idea was that economic growth in a region would help every resident. But that often has not been true. Low income people often get few if any of the new jobs. And the quality of the jobs they *do* get has often continued to be poor.

But poverty and the competitiveness of local businesses are linked. Sector programs often identify shortages of skilled workers as a major barrier for their sector's growth. Especially today, with relatively low unemployment, sector programs often target low income and disadvantaged residents for training.

“Before developing any services, a good sector program carefully analyzes regional and global trends.”

Several low income community organizations have tried sector strategies. A good example is Mountain Association for Community Economic Development, or MACED, in Kentucky. In the early 1980s it moved from providing general business assistance and financing help into a program that focused on one sector: the local lumber industry. It found that efforts to improve marketing could significantly help the region’s many small lumber mills, potentially increasing jobs for MACED’s constituents. Several other nonprofit and community organizations also have experimented with sector strategies.

What makes sector strategies effective?

Sector strategies show promise in part because, if done right, they are based on some sound economic principles.

1. **Start with a good strategic analysis.** Before developing any services, a good sector program carefully analyzes regional and global trends. For example, a great job-training program is not going to help low income people much in the long-term if they are trained for jobs that will disappear in five years because a local industry can no longer compete or its technology changes radically.
2. **Develop an in-depth, specialized knowledge of a particular sector.** To affect a sector, a program must find ways to add value to the sector’s businesses. To do this, the program’s staff must know the sector well enough to see what is needed to help the sector compete and grow.
3. **Find ways to significantly affect an industry,** such as providing needed training to workers or organizing new marketing strategies.
4. **Develop credibility and legitimacy.** As a program develops in-depth knowledge of an industry,

it becomes easier to establish credibility with people in the industry. The key is finding ways to develop ties with these people.

5. **Explicitly link a program’s benefits with low income people and communities.** Most sector programs do not incorporate this principle. But those that most benefit low income people weave this principle into their programs in many ways.

How were these four programs begun and what do they do?

The programs we studied are different in many ways, including their origins, their analyses of their industries and regions, and what exactly they are doing to improve their regions economically.

There are many ways for programs to intervene in a sector. Altogether, the programs we studied undertook 10 activities. Of these 10, only two are done by all four programs: “Management Training” and “Networking & Communications.” All but one program undertakes “Lobbying/Advocacy,” “Marketing,” “Finance” and “Worker Training.” Only one or two programs do “Research & Development,” “Modernization,” “Supply Enhancement” or “Small Business Development.”

In relation to reaching low income people, all four programs do job placement, job training and/or job creation, all of which involve training and hiring disadvantaged people. Alaska Village Initiatives (AVI) and Ganados del Valle (GDV) have direct links to low income people in the businesses they target, the people they employ and who sits on their boards. Their missions are to assist low income people. Hosiery Technology Center (HTC) and Wood Products Competitiveness Corporation (WPCC) don’t share this mission, but they do train many low income people.

All four programs are small, ranging in annual budget from \$300,000 to nearly \$600,000, ranging in full-time staff size from three to eight. The type

“The Hosiery Technology Center has stressed the need for its firms to modernize, helping them adopt new technologies. It emphasizes the need for trained workers.”

of staff varies. HTC, for example, has an engineer as its director and employs several people with long experience in its industry. GDV, which has a strong commitment to developing staff from within its communities, employs mostly local Hispanic and Native American women.

The **Hosiery Technology Center**, while funded by state government and operated by a community college, was initiated by an industry association, which was concerned about issues that threatened the industry’s competitiveness and ability to survive.

Its analysis found that, while the hosiery industry had lost fewer jobs than other parts of the textile industry, it was facing serious challenges, including global competition and new technology. Computerized knitting machines from Italy and Japan had revolutionized sock production, but the small to medium-sized firms in North Carolina had been slow to respond. Finally, major discount retailers had begun buying directly from mills, pushing prices down even more and demanding a greater variety of styles delivered directly to stores across the country.

HTC has stressed the need for its firms to modernize, helping them adopt new technologies. It emphasizes the need for trained workers, and HTC has worked with community colleges to develop training programs. HTC has also emphasized the need to modernize not just equipment, but also the manufacturing process (such as just-in-time delivery) and management practices.

HTC has worked to make both management and worker training responsive to the firms’ needs. And it has tried to create more career interest in its industry, which had a negative image, especially among many young people and teachers.

The **Wood Product Competitiveness Corporation** was begun by state government, a reaction to severe job losses in logging and

lumber mills in Oregon. WPCC’s analysis highlighted the differences between the wood products industry’s two segments: “primary” and “secondary.” The primary segment does the timber cutting, transportation and lumber milling. The secondary segment manufactures the wood into products such as flooring, cabinets, doors and windows. While the first part of the industry was declining, wood products manufacturing was growing. The analysis made it clear that this was the part of the industry on which to focus.

But these manufacturing firms faced several problems, including a decline in the supply of high quality wood. WPCC has confronted this problem by showing the firms how they could use new types of wood, such as juniper. The mostly small, widely scattered wood products firms also had to survive with very diverse markets, mainly by finding ways to increase their range of products and their ability to customize products. And they needed new markets and the ability to compete globally.

WPCC believed the key was to get these firms to work together as part of a network. By working together, they could share the costs of marketing, modernization and training, as well as combine production, develop joint product lines, improve access to credit and more. Much of WPCC’s work has involved changing the way its firms interact. It has been creating a “flexible manufacturing network,” with firms sharing marketing and training.

WPCC has also been pushing modernization, helping firms adopt new technologies. Part of this process is training workers to use new equipment, so WPCC has worked closely with community colleges to develop training programs. To attract people to this training, WPCC has also worked to change the image of the industry as dying.

To modernize, firms need access to capital. In response, WPCC has helped create a state-funded program that guarantees bank loans to firms. It also has a system for referring firms to lenders.

“Ganados del Valle’s analysis reflected its mission, which is to increase the sense of cultural identity and history among Native American and Hispanic communities.”

To expand markets, WPCC provides information on markets and sales opportunities and strengthens relationships between producers and buyers through its annual Buyers/Sellers Conference. It has also created a “Made in Oregon” program as a marketing tool for the entire industry.

Ganados del Valle (GDV) emerged from a grassroots organizing effort around land use, health problems, poverty and the need for economic opportunities that wouldn’t threaten the community’s environment and culture.

Its analysis reflected its mission, which is to increase the sense of cultural identity and history among Native American and Hispanic communities. Because their identity and history is so tied to the land, GDV’s economic strategy had to be based in the land.

It chose to focus on ways to strengthen the agricultural economy. Its strategy was a vertical one: finding ways to build back a nearly extinct breed of sheep, assisting weavers and other artisans in a variety of ways, and then finding ways to market their products.

At the same time, it emphasized community action around land use questions, as well as the need to build strong community leaders. In essence, GDV was consciously mixing sector-focused economic development with community development in a very sparsely populated rural region.

To carry out its vertical economic strategy, GDV had to not only assist *existing* businesses, but also create new ones, several of which it operates itself. These ventures are intended to help create a market for sheep herders and artisans, buying their products and then re-selling them to retailers, wholesalers and individuals. Creating new businesses has required a range of support services, including marketing, financing and business technical assistance. It also requires capital, so GDV operates a small revolving loan fund.

Alaska Village Initiatives (AVI) dates back to the 1960s and an effort to confront poverty. It began as a Community Development Corporation funded by the state’s Community Action Program. Today it has more than 140 members. Its clients are rural, native Alaskan communities. Its sector program serves mainly community-based, tourist-oriented businesses in the state’s rural villages, including tours and bed and breakfasts.

In the mid-1980s, AVI’s analysis saw that Alaska’s tourism industry was growing rapidly while more traditional rural industries, such as fishing, were declining. It became involved with tourism in 1987. This helped it see other important changes within the industry, such as the demise of many small tour operators and the growing dominance of regional marketing organizations, which were channeling tourism to the more accessible and populated parts of the state.

AVI saw another key change: more and more visitors were buying tour packages before they came to Alaska. Attracting these people to remote areas meant you had to market them *before* they left home. AVI saw that the only way to build tourism in remote Alaska was to jointly market village tourism businesses and find something unique to market, which was native culture. This fit very well with a key AVI goal, preserving native culture.

Like GDV, AVI is working with many small, fledgling businesses, so it has tried to provide basic assistance in feasibility analysis, business planning and management. It also operates a revolving loan fund to give the businesses access to some capital.

Because of the remoteness of many of the businesses, rather than arranging training programs, AVI has mostly trained local people to train local workers.

AVI’s joint marketing effort is done through the Alaska Native Tourism Council, a cooperative marketing association for community-owned tourist businesses in 12-15 villages.

“All four programs are helping local businesses survive and grow. Their work is also having other impacts, such as helping preserve local culture and helping change an industry’s understanding of how to be competitive.”

What Have the Programs Accomplished?

When we chose programs to study, we looked for ones that appeared to both strengthen their targeted business sector as well as directly benefit low income people. After studying these four programs, we concluded that all four achieved both objectives. They are helping businesses in all four regions survive and grow. Their work is also having other impacts, such as helping preserve local culture and helping change an industry’s understanding of how to be competitive and its openness to hiring low income workers.

While we judged all four program to be successful, their impact varies considerably, and is often hard to measure. We were able to find considerable data about the impact of WPCC and HTC. In contrast, there is very little hard data available for GDV.

What constitutes “success” also varies. It depends mostly on the region being targeted, the resources available to the program and the goals of each program. For example, in terms of sheer scale of impact, GDV has influenced far fewer businesses and jobs than has HTC. But in terms of impact on a particular community, GDV has transformed Los Ojos, the small town where it is based. Every business in this town has been created by GDV or helped by the fact that GDV has stimulated much more economic activity.

The regions targeted by GDV and HTC are very different. GDV’s region is considerably poorer, has far fewer existing businesses, is much more sparsely populated and much more isolated. GDV’s task is far more difficult. Also, GDV as an organization has a very different, much broader mission than HTC. It wants not only to spur its local economy and increase jobs, it also wants to develop community leaders and preserve local culture. The fact that the local businesses it has helped are controlled by local people is very important to GDV’s larger mis-

sion. Measuring GDV’s impact by counting the number of jobs and income it has generated is not an adequate way to determine its success.

In relation to hard, quantitative measures of success, the two programs with enough data to measure both costs and benefits (HTC and WPCC) appear to be very cost effective. For HTC, benefits exceeded costs by about an 8:1 ratio in 1995-96. For WPCC, benefits for its programs (other than training) exceeded costs by about a 2:1 ratio.

A critical measure of success for the researchers was whether the programs are providing decent jobs to low income and other disadvantaged people. In North Carolina, the jobs HTC has helped save or create pay well, as much as other local industries and more than retail, services and government jobs. In Oregon, jobs in the wood products industry pay less well. The average wage keeps a family around the poverty line. Workers in the industry are paid less than people in five other occupations in the state. However, in many rural towns, these jobs are the best ones available. The jobs appeal to many Oregon workers because they involve working with wood. The jobs often offer benefits, and the industry seems to offer upward mobility. It is unclear how much the jobs saved or created by AVI and GDV pay, though any income in the isolated areas these programs serve is important.

Both WPCC and HTC serve disadvantaged local residents, minorities and women at rates significantly higher than the percentage of each of these groups currently in industry jobs. The people HTC trains are almost entirely low income. The people WPCC trains for jobs are two to three times more likely to be females than their current representation in the industry. The same is true for minorities. Nearly all the people aided by GDV are women and minorities.

In relation to modernization, the **Hosiery Technology Center** and a partner helped 19 firms modernize in one year (fiscal 1994-95), yielding

“WPCC has also helped change the way industry people think about many issues, including the need to modernize, the potential of the export market and the need for alternative sources and types of wood.”

\$3.9 million of benefits. In relation to employment training and placement, HTC has trained more than 100 existing workers in technical skills, such as how to run and repair new computerized equipment. Ninety-nine percent completed the training. Ninety percent of entry-level trainees completed the course, and 90 percent of them got jobs in the industry, both excellent records. By 1995, HTC was training nearly 200 people a year.

It is impossible to estimate how many jobs HTC has saved or created, though again, it appears to be a considerable number. Employment levels in the industry have remained high despite strong competition and many changes in technology, marketing and distribution. HTC can take considerable credit for keeping employment high, in part because it serves a relatively large percentage of local hosiery firms. HTC's Catawba site, for example, “actively” serves 57 percent of the hosiery firms in its 3-county region. The early work HTC did in working very closely with a few firms to help them modernize appears to have affected its entire industry by convincing many firms that modernization and worker training could pay off.

HTC has also helped change negative perceptions of industry jobs as being dirty, low-paying and without much future. It has also been able to build relationships between the industry and many other institutions, including community colleges, state agencies and a private nonprofit group working with immigrants. Its work with community colleges has helped push them to respond more quickly and flexibly to the needs of local industries.

The **Wood Products Competitiveness Corporation** estimates that it has significantly helped 15 firms acquire new technology and train workers how to use it. Altogether, it trained 648 workers from 48 companies in 1996, training that led to nearly \$400,000 in benefits.

Its training of entry-level workers has been somewhat less successful, with 60 percent of graduates of one program being placed in industry jobs and only 35 percent of graduates of another program being placed. Several employers told us, however, that they were pleased that the people they hire from the training programs stay with their companies.

WPCC also has good data on other impacts. In relation to material supply, WPCC helped 15 firms obtain new supplies of wood in 1996. In relation to marketing, it has significantly helped 55 firms. One tripled its sales thanks to a contact it made at a WPCC conference. Firms that WPCC brought to a Japanese trade show came away with \$800,000 worth of orders. WPCC helped 15 firms find financing in 1996.

There is no solid data on how many jobs WPCC has saved or created, though it is probably a significant number. We base this conclusion on the fact that employment levels in this industry have remained high despite the many problems it faces. WPCC should get at least some credit for this because its programs affect a significant part of its industry. In 1996, its programs significantly affected 36 percent of its members' employees, or 12 percent of all wood products industry employees. (“Significant impact” means that a program concretely helped a firm's bottom line, by directly increasing its revenues, generating a new contract or developing a new supplier of wood.)

WPCC has also helped change the way industry people think about many issues, including the need to modernize, the potential of the export market and the need for alternative sources and types of wood. In developing a flexible manufacturing network, it has gotten Oregon's traditionally independent wood products firms to work together on issues such as these.

It has made progress in changing the negative perceptions of the industry and its future, perceptions that kept many potential workers from enter-

“Focus is the essence of a sector strategy: focusing on a certain sector will make economic development efforts more effective.”

ing the industry. As these perceptions have changed, WPCC has been able to build relationships between the industry and state agencies, colleges and financial institutions.

Because it has helped create new ventures, it is possible to estimate the number of jobs that **Alaska Village Initiatives** has helped create. These include more than 50 jobs through its Alaska Village Tours Project, eight jobs in manufacturing products to sell mostly to tourists, and 201 jobs through the Alaska Native Tourism Council (ANTC).

Many of these 201 jobs were created before ANTC's formation in 1993, by the tourist businesses that ANTC markets. In ANTC's first year, it helped create 27.5 new jobs, which include tour guides, cultural performers and maintenance workers. Most of these jobs were part-time, ending when the tourist season ended.

AVI's tourism work no doubt helped preserve many of the jobs created before ANTC was begun. Its work has provided these isolated businesses considerable assistance in how to run a business, and its joint marketing efforts have helped overcome their isolation.

It's not possible to estimate how much income was generated by the jobs that AVI helped create or preserve. But in many remote places, this income was one of the few sources of cash. The businesses also have helped preserve culture by teaching residents how to perform native dances and produce crafts.

There is very little data that can be used to measure **Ganados del Valle's** accomplishments. Its businesses employ about 52 people, most of whom probably work part-time. We can only estimate what they were paid by looking at the total revenue of GDV's businesses, a crude measure of wages.

GDV has put much emphasis on marketing, but

its impact is very hard to estimate because of lack of data. The main impact appears to be on Tierra Wools, which has increased sales from \$200,000 in 1990 to \$324,000 in 1995.

As with AVI, GDV's goals go beyond improving its community's economic life. It also is trying to preserve culture and history and develop community leaders, all of which it appears to be doing.

What Factors Make These Programs Succeed?

The differences among these programs makes it a little hard to generalize about what factors have helped them succeed. But, perhaps surprisingly, we found several factors that were important to all four programs, such as the quality of staff and the need to add value to the products or services of the local businesses being helped.

In some cases, we could see the importance of a factor by seeing how it complicated a program's work. A good example is the need for focus. GDV struggles some because its broad mission and range of businesses makes having a clear focus very difficult for it. Similarly, the wide range of activities undertaken by WPCC makes it difficult for it to do everything well. In both cases, the broad focus is a result of having few other local institutions with which GDV or WPCC could partner. This fact means that, if GDV or WPCC does not take on an activity, it will not get done.

The key factors include:

Having a clear focus. Focus is the essence of a sector strategy: focusing on a certain sector will make economic development efforts more effective. The most focused of these four programs is HTC, which is dealing with a sub-sector of the textiles industry: hosiery. It works only with certain firms: small and medium-sized. Its work is focused on two goals: increasing modernization and training workers.

“One key is to find effective ways to bring valuable expertise to individual businesses, such as knowledge about marketing, finance and research and development.”

In contrast, WPCC focuses on a sector that is quite diverse in both products and markets. WPCC also has a very broad set of activities, including developing new markets, diversifying supplies of wood, increasing modernization, training workers, building a network and increasing access to financing. Maintaining focus is much more difficult.

Being connected to the industry. To have an impact on an industry, a sectoral program needs to be strongly connected to that industry. These connections can help build the program’s credibility as well as its ability to respond to the industry’s needs and, ultimately, to influence its future. The connections are based on the specialized knowledge of the industry developed by program staff. This knowledge allows staff to work with industry leaders on activities such as joint marketing campaigns, organizing events and training programs, and developing relationships with outside partners such as community colleges.

HTC and WPCC have both achieved this goal, being industry-driven, industry-led and very well connected to the industry. Their boards include many industry leaders. They provide services requested by the industry and they involve the industry in designing and delivering these services. Both have become part of their industries’ infrastructure.

Being able to marshal expertise. One key way to build credibility within an industry is to find effective ways to bring valuable expertise to individual businesses, such as knowledge about marketing, finance and research and development. Developing and delivering expertise is particularly important in rural areas, which are often distant from sources of expertise.

All four programs have been able to marshal expertise, some more effectively than others. HTC has been very effective at mobilizing the expertise of others. WPCC has been effective in using and sharing the knowledge and expertise of its member

firms. AVI has hired outside consultants, but it mainly draws on its own expertise. GDV has often relied on outside consultants. It has struggled to find good consultants and sometimes has assigned very complex business development tasks to inexperienced staff members.

These problems underscore how difficult it is to do any kind of economic development in such sparsely populated rural areas. It is both hard to find local people with expertise and hard to get experts to the businesses because of the isolation and/or great distances. GDV’s emphasis on developing community leaders — and AVI’s emphasis on developing local entrepreneurs and trainers — may be exactly what an economic development program working in such an area must do.

The importance of the economic context. Local economic conditions play an important role in both why sector programs are begun and how well they succeed. In North Carolina, for example, the economic threat of global competition forced hosiery firms to act to improve their competitiveness, which led to HTC. In Oregon, the steady loss of jobs in timber harvesting and milling forced the state to look for alternatives, which led to WPCC.

Economic context not only led to GDV’s and AVI’s sector programs, it has also made their work even harder. Both programs work in areas that are considerably poorer and more isolated than those in which HTC and WPCC work. This greater distance and smaller populations make it harder to find expertise, training opportunities, potential partners and opportunities to bring people together to share information and ideas. All of this can be done, but often it takes more time and requires a broader range of expertise.

At the same time, transformations in information and shipping are decreasing the disadvantages of distance. Rural areas can be much more connected because of e-mail and the Internet. Competition in

“Transformations in information and shipping are decreasing the disadvantages of distance. Rural areas can be much more connected.”

the shipping industry has made it possible to send goods to distant markets quickly and relatively inexpensively.

The importance of historical, cultural and geographic contexts. All four projects have drawn on local history and culture to add value to products, galvanize community participation, and influence what organizations do and how businesses are set up. For example, a long history of organizing in New Mexico’s Chama Valley led to GDV’s community-based structure, as well as its emphasis on developing community leaders and building socially responsible, community-owned businesses. For HTC, its ability to build a long-lasting network reflects the tradition of the family-owned businesses in North Carolina, which have long shared information and helped each other in difficult times.

The key is that a strategic analysis needs to focus not just on a region’s industries and economic potential, but also the ways its history, culture and geography influence the economy.

Building supportive partnerships and generating investment. All four programs are small. To have an impact, all but GDV developed partnerships with other institutions, which have provided expertise, training or resources. HTC has partnered with at least eight institutions. WPCC has worked closely with community colleges and banks. In relation to investment, HTC, WPCC and AVI have received some state funding.

Recognizing the impact of institutional cultures on partnerships. While building partnerships is critical, it often isn’t easy. One reason concerns the culture and traditions of various partners.

In relation to building a network among firms, the experiences of HTC and WPCC demonstrate how important tradition can be. In North Carolina, the mostly family-owned firms had a tradition of working together. In Oregon, the tradition was one

of rugged independence. Getting firms to overcome their independence and secrecy and seeing the benefits of collaboration was much more challenging.

The challenges of different institutional cultures can also be seen in HTC’s and WPCC’s partnerships with community colleges. Businesspeople and college administrators have very different cultures, languages, bureaucracies, patience with process and meeting styles. The very structure of the community colleges, with their semester-long schedules, can cause problems. In Oregon, the schedules didn’t correspond with local production cycles, so jobs often weren’t available when people completed their training. In North Carolina, the emphasis on structured classroom training didn’t correspond with the mills’ needs for quick, flexible, hands-on, small-group training. Bridging these cultural differences is often a key role for a sector program.

Being able to find the added value. Ultimately, a sector program succeeds by being able to add enough value to its member’s products or services that these firms survive and grow. For HTC and WPCC, the key has been being flexible and responsive to the firms they serve.

Having quality staff. Staff have been critical to the success of all four programs. They have been able to work across different cultures, build broad partnerships, deliver useful services, get their industries to prepare for the future, involve business leaders, be creative and entrepreneurial, and cut through red tape.

Knowledge and experience of the industry were crucial for several staff leaders. But their ability to recruit partners who had complementary skills was also important. The key is building a team with a range of skills and experiences: knowledge of the industry, marketing, business management, engineering, political savvy, ability to work with a variety of people and cultures and more.

“These four programs demonstrate that this approach to strengthening rural economies shows considerable promise. These initiatives are worth expanding and replicating in other rural areas.”

Conclusions and Recommendations

The four rural sector initiatives we examined demonstrate that this approach to strengthening rural economies shows considerable promise. These initiatives are worth expanding and replicating in other rural areas. The four programs differ in many ways, and each rural area presents its own challenges and potentials. But certain lessons would apply to most efforts to build or expand a rural sector initiative.

Help businesses adopt appropriate technologies and obtain R&D Support. Most firms in rural areas are relatively small. Because of this, most need help gaining access to modern manufacturing technology, communications technology and management techniques.

Focus on the intersection of technology and training. New technology requires well-trained employees who can use it. Many businesses in rural areas had not needed highly trained employees. Sector programs have helped these businesses see the need for training, then helped develop effective training. This training has helped increase job quality.

Focus on marketing. Being able to sell more products and services is the bottom line. With increasing competition, specialization and market complexity, most firms need and want marketing help. This is especially true in rural areas, which are often distant from large markets.

Find ways to provide needed expertise. Developing a business requires a lot of expertise and knowledge. Many firms need help with advertising, finance, marketing, accounting, legal issues and much more. Finding ways to connect rural businesses with this expertise is crucial.

Work to expand job training and placement. Training workers to operate new machinery is just one challenge involving employees. Both the ho-

siery and wood products industries needed to overcome a negative image about jobs in their industries. AVI and HTC had to get people ready for work, helping them acquire basic skills and/or English proficiency. Getting trained people placed in industry jobs is another challenge, one made easier by the relationships the sector programs already had with employers.

Work to build strong networks. The isolation of rural areas increases the need to find ways for businesses to share information and work together on common problems. HTC, WPCC and AVI all have helped build business networks with regular meetings, events, newsletters and collaborative projects. These networks are valuable because they can decrease the cost of providing needed technical assistance and training, increase the flow of information and increase the industry's political ability to push for needed policies and resources.

Work to create and support viable new businesses in areas that need them. For many rural sector programs, such as HTC and WPCC, it is enough to work with existing businesses, helping them better compete and grow. But for programs working in many other low income rural communities, a different strategy might be needed. GDV had to create businesses to carry out its community-based economic strategy. AVI had to find and nurture local entrepreneurs and very small businesses to carry out its strategy. Building businesses in this way is extremely challenging work, even in areas with far higher incomes.

But income and jobs should not be the *only* way we judge programs like these. Both programs have generated other significant benefits, including helping communities develop new leaders and entrepreneurs, helping rural communities preserve their history and cultures, and helping more residents get job training and job experience. It may be that the only economic program that could succeed in these very low income, isolated communities is one that

“To maintain its focus on low income people and communities, a sector program must make targeting an explicit part of its mission, staff, board and programs.”

finds a way to combine solid business skills, a good business strategy *and* a strong community base.

Achieve economies-of-scale by expanding geographic reach, increasing the number of businesses being reached, or finding ways to provide services more efficiently. WPCC has expanded by becoming involved in three states that border Oregon. HTC has opened a new center servicing eight more counties. AVI has been trying ways to help village-based businesses that cut down on expensive, time-consuming travel.

A larger scale allows a program to assist more businesses, potentially increasing jobs for residents. Having more firms with the same technology, training needs, marketing goals and purchasing requirements can justify the joint programs that can save money. The training can be more specialized, the kind of training most firms want.

Understand and respond to the consequences of “welfare reform.” Welfare changes require people to find jobs. Rural sector programs are natural job generators. Many of these jobs are local, require little experience, pay decently, provide benefits and have some upward mobility. Many existing sector programs could be expanded to help meet this need for jobs. They could reach out to more businesses and to welfare recipients, perhaps also providing (or connecting with) support services such as day care.

How can sector programs targeting the disadvantaged be replicated?

While most sector programs do not focus on low income people and communities, this study has found that those that do so can be quite successful. This suggests that more sector programs should adopt this goal.

For this to happen, people involved with these programs need to try to increase this strategy’s visibility. Funders need to increase support for these programs because of their potential to provide decent jobs to low income people. And policymakers and economic development professionals need to be educated about the strong connection between poverty and the need for economic development.

To maintain its focus on low income people and communities, a sector program must make targeting an explicit part of its mission, staff, board and programs. Programs also need to find and train staff who understand business, workforce development and low income community development. Because existing training programs don’t cover this spectrum or try to integrate these skills, a new training program is needed. Short of this, people who do this work — and people who want to start new programs — need more opportunities to interact and learn from one another.

When starting a new program, the focus needs to be on a geographic area that is large enough — and has enough industry concentration — to make a sector or cluster strategy work. This strategy simply won’t work in a small neighborhood or town. If there is a choice, a program should focus on a sector that is producing decent jobs. Working with a sector that is already decent to its workers is much easier than trying to change a sector.

A program needs resources. This includes support for basic operations, staff and board training, and adequate technical assistance for local businesses. It also includes pulling in many partners who can both provide key services and increase a program’s ability to push governments to support this work.

Introduction

Why Focus on Rural Development?

The Center for Community Change investigated rural sectoral development strategies for several reasons. First, poverty is more prevalent and often more chronic in rural areas than urban ones. As a whole, rural areas have lower incomes, lower employment levels and somewhat higher poverty levels than metropolitan areas. Average earnings per nonfarm job were \$30,678 in metro areas compared to \$22,314 for non-metro areas. Per capita income in rural areas was 28 percent below that of metropolitan areas in 1995. The poverty rate is about 2.5 percent higher in rural areas compared to metropolitan areas.

Second, rural areas often are more challenging to develop economically than are urban areas. Business development and job creation in rural areas is often complicated by their geographic distance from markets and by inadequate, underdeveloped physical infrastructure. Businesses in rural areas suffer from limited access to professional and technical services (legal, engineering, marketing, advertising, financial and accounting) and easy, face-to-face contact with marketing channels (buyers, brokers, wholesalers, sales representatives). Capital markets often poorly serve rural areas. Finally, many natural resource-dependent communities lack an entrepreneurial tradition, and smaller communities have insufficient populations to create viably large local markets. Given these barriers to economic growth, it is not surprising that rural areas tend to be poorer than urban areas.

In these difficult environments, sectoral economic development strategies show promise. While sectoral strategies have been applied in urban and rural settings, some of the most intriguing, well-known projects operate in rural communities, including several which explicitly work to reduce poverty. As the name implies, sector strategies focus on an *industry sector*. A *sector* can be defined as a group of firms that share some commonality. The commonality might be a shared market (e.g.,

hardware stores), a product (wood molding), a technology (wood-working equipment), a resource (trees) or even a workforce need (wood workers).

By focusing on a sector, a development organization can devise an intervention strategy that responds to the specific barriers and opportunities of the targeted businesses. By working intensively with a group of employers who share common issues, the development organization is able to develop deeper relations with these firms and work with them to advance common goals.

Accordingly, a sectoral economic development project has the following attributes:

- ◆ A clearly defined “sector” that is explicitly targeted.
- ◆ A clear vision and goals that are established from the outset.
- ◆ An effort to understand the dynamics of the targeted sector.
- ◆ A collaborative process that includes relevant “stakeholders.”
- ◆ A comprehensive approach that seeks to create systematic change within the sector through changing relationships among businesses, between business and labor, and among business, government and training providers.¹

Why Choose These Four Programs?

The Center conducted a broad scan of rural sector development efforts across the country before it selected four programs to study intensively. In choosing these four, we applied five criteria:

1. The industry chosen by the program was large enough to have an impact on its target area.
2. The program was effective in strengthening that economic sector, thereby creating or retaining jobs.
3. The program was effective in channeling benefits to low income people.

“Rural areas often are more challenging to develop economically than are urban areas. Development in rural areas is often complicated by their geographic distance from markets and by inadequate physical infrastructure.”

4. The program had existed long enough to have a record.
5. The programs were geographically diverse, representing different parts of the country with varied economic conditions, target populations and social and political environments.

The four programs selected are:

- ◆ **Hosiery Technology Center**, located in Hickory, North Carolina, supports the hosiery industry statewide. HTC was chosen because it has worked to retain its industry by helping it modernize and increase the skills of its workforce. HTC also links low income populations to its business development efforts.
- ◆ **Wood Products Competitiveness Corporation** is an organization concentrating on secondary wood products manufacturing in the Northwest and headquartered in Bend, Oregon. WPCC is business-driven, has a diverse set of programs and has prompted community colleges throughout the state to develop a worker-training system that affords lower-skilled, low income workers access to quality manufacturing jobs. It is helping save its sector by making it more competitive and export-oriented.
- ◆ **Ganados Del Valle** is a nonprofit organization promoting agriculture-based development for Hispanic and Native American families of the Chama Valley in north central New Mexico. GDV was chosen because of its anti-poverty

mission and its development strategy, which focuses on business ventures that are culturally-based.

- ◆ **Alaska Village Initiatives**, based in Anchorage, focuses on culturally-based tourism in remote parts of Alaska. AVI was chosen because of its expertise in sector-based business development and its experiences working in extremely remote areas with people who have little connection to mainstream economies.

How Is This Report Organized?

This report has five major sections. Chapter 1 presents a history of sector-based economic development strategies and identifies some *key principles* underlying their effectiveness. Chapter 2 compares and contrasts the four programs studied in terms of their *design and structure*. Chapter 3 describes the economic development and economic opportunity *outcomes* of the four sector programs. Chapter 4 analyzes some of the *factors which explain program outcomes*. Chapter 5 discusses *expansion, replication and policy issues* for sectoral interventions.

Endnotes

¹ Beth Siegel and Peter Kwass. *Jobs and the Urban Poor: Publicly Initiated Sectoral Strategies* (Somerville, MA: Mount Auburn Associates, 1995) p 3.



History and Principles of Sector Strategies

This chapter reviews the history, literature and practical experience with economic development strategies that focus on particular sectors. This review helped identify several factors or attributes of sector programs that make them powerful economic development tools. We pay particular attention to how these strategies can target benefits to low income people and communities.

History of Sector Strategies

Sector strategies began in the early 1960s, when local economic development officials began recruiting firms from specific industries, based on an area's perceived comparative advantages.¹ This represented a more sophisticated approach to *industrial recruiting*, which along with various forms of public subsidies (tax abatements, infrastructure, low-cost financing) constituted the primary way that state and local governments tried to stimulate economic development into the 1980s.

In the late 1970s and early 1980s, Japan's success in targeting and developing certain manufacturing industries led to various proposals in this country for a *national industrial policy*, which included both sector-specific and cross-sector initiatives. Although these national policy proposals died in the mid-1980s, states and localities began experimenting with development strategies which targeted key industries or sectors of their economies.

While the sectors targeted depended on the state or local economy, two types of targeting were prevalent. First, many initiatives targeted *mature manufacturing industries* that were threatened by international competition or by pressures to relocate to areas with lower labor costs. Conversely, other efforts targeted *emerging technology-oriented industries* such as bio-technology or micro-electronics because they were perceived to have high growth potential.

The distinguishing feature of these sectoral ef-

forts was not so much the use of new programmatic tools, but the fact that they started with an analysis of the state or local economy, identified key sectors, and organized services around those sectors. As they were originally conceived, sectoral programs could theoretically offer a wide range of assistance depending on the sector's needs. In a paper published in 1987, Mount Auburn Associates listed the following program tools:²

- 1. Organizing and Promoting Cooperation:** Creating new relationships among businesses in the same industry, among businesses in different industries (promoting increased linkages in the local economy), and between management and labor.
- 2. Developing "Enterprise Centers":** Specialized industrial parks, which, like incubators, provide small businesses in the same or related industries with a facility and shared services.
- 3. Technology Transfer:** Programs that aim to diffuse knowledge about modern production technologies can target firms in a particular industry.
- 4. New Product Development:** Programs that match local manufacturers with sources of new product ideas, evaluate the feasibility of potential products, or finance new product development through innovative "royalty financing" mechanisms.
- 5. Employment and Training:** Programs that address labor shortages that inhibit the growth of an industry, or the cost of retraining workers for new production processes.
- 6. Research and Development:** Investments by states in applied research and development, often to universities to establish research centers focused on particular technologies or industries.
- 7. Financing Investment in New Production Technologies:** Financing for automated equipment which could enhance the competitiveness of small firms.

“The distinguishing feature of these early sectoral efforts was that they started with an analysis of the state or local economy, identified key sectors, and organized services around those sectors.”

8. **Addressing Specific Competitiveness Issues:**

Analyses of particular industries to reveal issues that limit the competitiveness of local firms. Such issues may be poor access to transportation or the high cost of energy.

While a number of sectoral programs set out to provide a broad spectrum of services, in practice, the actual services delivered were generally much more limited. In a report published in 1995, Mt. Auburn found that job training and related support services were “by far the most frequently used” tool of the sector programs it examined. The second most common tool was “providing information or technical assistance directly to businesses in targeted sectors.” This assistance usually involved technology modernization, but sometimes covered other aspects of business operations, such as marketing, financing and management practices. The more aggressive tools of sector development – e.g., innovative financing mechanisms, new product development and new market development – appear to have been utilized much less frequently.

In addition to these self-described “sector” programs, several other strategies or approaches emerged in the 1980s that implicitly entailed some sector specialization. Various state and federally-supported efforts were undertaken to **promote technology modernization** in manufacturing industries, with services typically provided through a technology “extension service” staffed largely by engineers.⁴ One of the most comprehensive programs was the Michigan Modernization Service, which assisted firms with selecting and installing computer-based production technologies, workforce development, market development and “educational services,” including workshops for managers, entrepreneurs and union leaders.⁴

Some cities adopted **industrial retention programs** to retard the flight of manufacturing firms to the suburbs or the sun belt. Retention programs

generally offered assistance with technology modernization, development of high-quality manufacturing space (industrial real estate), workforce training programs, marketing and export programs, assistance with government procurement contracts, and low-interest or otherwise favorable financing.⁵

While technology modernization and industrial retention programs may not qualify as sector strategies as defined above, many of these efforts did specialize on certain sectors and offered services similar to those provided through sectoral programs.

In the latter 1980s, **flexible manufacturing networks** came into vogue. This trend was inspired by some widely publicized examples from Europe, such as small firm industrial districts in Italy, where networks of firms produce shoes, textiles, leather goods, furniture and ceramic tiles. In Italy, Denmark and other European countries, many small, related firms work together to be able to compete against large firms in international markets. Carl Rist and Puchka Sahay describe flexible manufacturing networks as follows:⁶

“The concept of inter-firm networking refers to groups of smaller firms that cooperate in order to compete – that collaborate to achieve what each cannot alone. In urban and rural areas across the U.S., the formation of these kinds of networks is an emerging economic development strategy. Inter-firm networking allows participating firms to retain the flexibility of smaller firms, while at the same time capturing the benefits of scale that larger firms enjoy. Network cooperation may take many forms, from joint purchases of materials or services to the exchange of strategic information to joint ventures for product development and commercialization.”

By one estimate, there have been at least 150 networks organized in the U.S. The major skepticism about flexible manufacturing networks has

“Economic development in the United States typically focuses on job creation and the overall strengthening of an economy. It is rarely explicitly concerned with poverty.”

revolved around the independent, individualistic mindset of American business leaders. Collaboration is less a part of the American business culture than in other countries, where networks often evolve more naturally, with less impetus from government or other outside actors. In fact, many networks in the United States have struggled in recruiting and retaining members, and thus far, few networks have reached the close levels of collaboration found among firms in European networks. Nevertheless, networks have become a dominant sectoral strategy.⁷

In the 1990s, another evolution of sectoral strategies emerged: **industry clusters**. Cluster strategies draw heavily on the work of Harvard business professor Michael Porter, especially his book *The Competitive Advantage of Nations*, published in 1990. In researching over 100 industries located in 10 important trading nations, Porter found that a nation's most successful industries consisted of related groups of firms rather than single, isolated companies. These groups were often located in the same city or region. Consequently, Porter concluded that:⁸

“Nations [and regions within nations] succeed not in isolated industries, however, but in clusters of industries connected through vertical and horizontal relationships. A nation's economy contains a mix of clusters, whose makeup and sources of competitive advantage (or disadvantage) reflect the state of the economy's development.”

The terms “clusters,” “networks” and “sectors” are often used interchangeably. However, the distinguishing characteristics of clusters are:

- ◆ **Clusters emphasize geography**, particularly the competitive advantages gained by related industries locating near each other.
- ◆ **Firms in a cluster, unlike networks, may have no formal relationship to each other.** In fact, the strength of a cluster is that competition between firms sparks innovation.

- ◆ **Clusters include a broad range of supporting institutions:** educational institutions, venture capitalists and other financing entities, research facilities and occupational training programs.

- ◆ **Clusters can span multiple industries or sectors.** Clusters can include complementary or related industries that share common technology, markets or support infrastructure (horizontal relationships), or that are linked by buyer/seller connections (vertical relationships).

Since the approach is new, actual operating experience with cluster-directed strategies is limited. The cluster concept can be difficult to operationalize into a set of programmatic activities. In fact, at this time, the greatest value of cluster strategies has been as a way to understand a local or regional economy, rather than as a distinctive body of strategies, program designs and practice.

For purposes of this report, sectoral strategy is broadly defined to include the “traditional” sectoral strategies that emerged in the early 1980s, flexible networks and cluster strategies.

How Sectoral Strategies Can Benefit Low Income Communities

As this history suggests, sectoral strategies have been within the mainstream of economic development, with limited connection to poverty or economic opportunity issues. Economic development in the United States typically focuses on job creation and the overall strengthening of an economy; it is rarely explicitly concerned with poverty. A 1993 survey by the National League of Cities found that “although local officials believe reducing poverty is critically important, only 10 percent considered it one of their top three economic development goals.”¹⁰

The primary constituency of economic development agencies is businesses, which are interested in profitability, not alleviating poverty or creating employment opportunities for the disadvantaged.

“Community Development Corporations have made important, under-recognized contributions to the field, using sectoral strategies to benefit poor rural areas.”

As one would expect, economic development strategy gravitates towards providing services which are most valued by business. Taking flexible manufacturing networks as an example, Mt. Auburn has noted that:

*“Networks, by definition, are industry-driven mechanisms. Their function is to meet the needs defined by industry. Government’s role has been to support the creation and maintenance of these networks, but not to define the agenda. Thus, ... the work of industrial networks is not directly informed by issues ... such as who gets what jobs and the quality of those jobs.”*¹¹

Nevertheless, sectoral economic development strategies and anti-poverty interests do share common ground. Many, if not most, sectoral programs identify *shortages of skilled workers* as a major barrier for their sectors’ growth. Consequently, workforce development programs are frequently a major component of a sectoral strategy. Some of these programs target a specific low income community or economically disadvantaged population for specialized occupational training programs to prepare them to work in that sector. Such programs utilize economic development to create greater opportunity for less advantaged populations.

The Role of CDCs

The other connection between sector strategies and anti-poverty efforts is historic. Community Development Corporations (CDCs) — community-controlled, nonprofit development organizations operating in urban and rural low income areas — have a strong tradition of sectoral development approaches. They have made important, under-recognized contributions to the field. William Duncan, president of the Mountain Association for Community Economic Development (MACED) in Berea, Kentucky, described the use of sectoral strategies to benefit poor rural areas in a widely

quoted paper published in 1986. According to Duncan, the fallacy of “generalized” small business assistance and financing programs was their inability to accumulate specialized expertise.

*“A small business developer can hardly be expected to make informed investment judgments about a cut-and-sew one day, a supermarket the next, and a machine shop the next, which is one reason business development practitioners have accomplished less.”*¹²

In the early 1980s, MACED’s generalized business assistance and financing programs evolved into sector-specialized programs. Their efforts in the timber industry are most illustrative. MACED first established a Forest Products Center in late 1981, staffed by a person experienced in the hardwood lumber industry. Contact with business owners in that sector convinced MACED it could have an impact.

Initially, MACED tried to promote secondary manufacturing to create jobs, but found few entrepreneurs experienced with that part of the industry. Instead, MACED discovered that small, local lumber mills all faced similar problems in gaining access to markets. These mills were selling to buyers who paid the same price for all lumber, regardless of its grade. Thus, the small Kentucky mills were not capturing the premium price (and profit) from their high-grade product. If MACED could improve their access to markets for higher grades of lumber, many mills could expand “under their own steam.”

Subsequently, MACED formed a subsidiary to buy, agglomerate, process and resell the high grade lumber of these small mills. The subsidiary attempted to develop the industry in other ways, including promoting joint ventures and making financial analysis software available to the larger mills. Thus, the core of MACED’s strategy was to intervene *vertically* in the wood product supply chain to create a new, higher margin marketing channel for existing lumber mills.

“The goal is to make the industry more viable because sawmills and loggers are critically important employers of poor people in the most rural parts of the area.”

MACED’s experience with sectoral strategies was not unique among CDCs. In the mid-1970s, Community Enterprise Development Corporation of Alaska (later Alaska Village Initiatives) focused its business development efforts in three industries: fisheries, consumer cooperatives for retail trade, and native arts and crafts. Similarly, Coastal Enterprises, Inc. in Maine targeted two natural resource industries—fisheries and forest products. Jane Addams Resource Corporation in Chicago selected metal fabrication firms in North Chicago’s Ravenswood manufacturing corridor. These CDC-initiated sectoral programs were generally similar in approach and strategy to those implemented by mainstream economic development agencies. The critical difference is that CDCs have a fundamental goal of using economic development to impact poverty. As Duncan writes,

“The goal here is to use a number of mechanisms to make the industry more viable, not because it offers high pay rates or growth potential, but because sawmills and loggers are critically important employers of poor people in the most rural parts of the area.”¹³

Principles that Make Sectoral Development Effective

Sector development is a broad field that has evolved several distinct strategic approaches based on somewhat different conceptions of how these programs can work and have an impact. In order to interpret the four case studies in this report, we have distilled some principles that help make rural sector programs effective. These principles fall into four categories.

1. Sector programs are based on a:

- ◆ **Strategic Analysis:** Sector strategies begin with an analysis of the structure and market dynamics of the industry and the economic and public policy leverage points. Sector

strategies are based on knowing the barriers, strengths, opportunities, resources and competitive factors of the targeted businesses. They must explain what’s needed for these businesses to become more competitive and grow.

2. Sector programs embrace two operational principles:

- ◆ **Specialized Knowledge:** By focusing on a sector, program staff can gain in-depth, specialized knowledge relevant to their sector. This knowledge can encompass market trends, market channels, production technology, materials supplies, governmental regulation, financial analysis, pricing, packaging, logistics and transportation, capital and finance, facilities and real estate, and workforce quality and availability—the entire spectrum of business concerns. This knowledge enables a program to *add value* at a depth which conventional “generalist” business service providers cannot.

- ◆ **Industry Relationships and Legitimacy:** Sector programs will work with many of the same businesses over and over again. If those interactions are positive, a sector program can establish long-term, enduring relationships with important firms in the sector, enhancing its legitimacy and credibility. Legitimacy is essential to being effective in economic development because businesses are so often suspicious of such programs, especially if they are initiated by government or other “outside” actors. Specialized knowledge plus industry credibility also gives a sector program the power to initiate new activities. Rather than always reacting to industry needs, the sector program can be more proactive and take a leadership role.

3. Sector programs achieve their impact through one or more generic strategies.

These strategies include:

“In today’s economic world, superior knowledge and innovation are the basis of competitive advantage. Thus the greatest power of a cluster strategy can be its ability to promote the exchange of information.”

◆ **Direct Service Delivery:** The program may directly provide services to firms in its sector. For example, a sector program may have a staff engineer who works directly with firms to assess their production equipment and recommend upgrades. Another program may run a training that feeds technically-skilled workers into the industry. “First generation” sector programs were often built around direct delivery of specialized services identified by their constituent businesses.

◆ **Strengthening the Support Infrastructures:** Strong sectors (or clusters of firms) are generally served by a specialized infrastructure. This infrastructure can include business services (e.g., product and material testing, customized workforce training, legal and business support services), support businesses (equipment and material suppliers, job shops, prototype shops, warehousing, packaging and transportation firms), financing institutions that understand the industry, and educational institutions that train both professional and production workers. Strong *clusters* will normally drive the creation of a strong support infrastructure. However, in the absence of adequate infrastructure, many sector programs have helped develop it. They may advocate for more public investment, or network with key private sector firms that can provide needed services.

◆ **Promoting Greater Inter-Firm Cooperation:** Many sector programs try to promote firm-to-firm collaboration on projects. This collaboration often involves *flexible specialization* or flexible manufacturing networks. Several smaller firms can bid on a contract that is too large and complex for any one firm. Alternatively, a group of smaller firms can cooperate on a workforce training program, or a research and development program, which none could afford individually.

In effect, cooperation enables smaller firms to achieve economies of scale.

◆ **Creating New Patterns of Information Flow and Learning:** Research on successful *clusters* has demonstrated a high level of information exchange between firms. In a vertically-strong cluster, better information flow yields information on new product and technology developments, knowledge of the most cost-effective inputs, and better (and more cost-effective) coordination between buyers and suppliers. In a cluster rich in horizontal relationships, better information flow creates opportunities for innovations in one industry to benefit firms in other industries, for development of complementary products or services, for development of common support infrastructure, and for strategic alliances which cross industry lines.

In today’s economic world, superior knowledge and innovation are the basis of competitive advantage. Consequently, the greatest power of a cluster strategy can be its ability to promote the exchange of information, which promotes new knowledge, enables innovation and helps firms identify and capitalize on new market opportunities.

4. Finally, a sector’s strategy can yield benefits to low income people or communities if it has:

◆ **Ways to Link to Poverty Populations:** As with the CDC-initiated sector strategies, we are interested in how a sector program channels economic development benefits to low income persons. These benefits can take different forms — job creation, job placement, higher wages, skill-building, political empowerment, or even preservation of indigenous cultures. The benefits will largely emanate from the program’s services. But citizens whose organizing efforts helped create and

“To have a strong impact on poverty, the anti-poverty mission needs to be woven into the program at many levels.”

develop a program may also benefit by participating in that program’s governance, operations or advocacy.

Many ways have been used to link a sector program to low income concerns. These include the program’s mission, who governs it, the constituencies it serves, its analysis of the strategic issues, and how the program is designed and staffed. Sector programs with strong impact on poverty will utilize many of these linkage mechanisms; the anti-poverty mission becomes woven into the program and organization at many levels. These sector programs are as concerned with the market for the sector’s workers as they are with the market for the sector’s products and services.

Endnotes

¹ This history draws primarily on Beth Siegel and Peter Kwass’ *Jobs and the Urban Poor: Publicly Initiated Sectoral Strategies*. Somerville, MA: Mt Auburn Associates, November 1995. pp. 5-9.

² Mt. Auburn Associates. *Sectoral Targeting: A Tool for Strengthening State and Local Economies*. Washington, D.C.: Council of State Community Affairs Agencies, June 1987. pp. 12-14.

³ Several such programs are described in Marianne K. Clarke. *Revitalizing State Economies: A Review of State Economic Development Policies and Programs*. (Washington, D.C.: National Governors Association, 1986). pp. 65-68.

⁴ Michigan Modernization Service is profiled in David Osborne. *Laboratories of Democracy: A New Breed of Governor Creates Models for National Growth*. (Boston, MA: Harvard Business School Press, 1988) pp. 165-167.

⁵ See Matt Kane and Peggy Sand. *Economic Development: What Works at the Local Level*. (Washington, D.C.: National League of Cities, 1988). pp. 57-88.

⁶ Carl Rist and Puchka Sahay. *Community-Based Organizations and Business Networks: New Ideas for Creating Job Opportunities for inner-city Residents*. Corporation for Enterprise Development. Washington, D.C.: 1996.

⁷ Siegel and Kwass, p. 7.

⁸ Michael Porter. *The Competitive Advantage of Nations*. The Free Press. New York: 1990. p 73.

⁹ Vertical relationships refer to firms who buy or sell to each other. The vertical “supply chain” typically starts with raw materials *supply* and moves upward to manufacturing material into a *product* to distribution by a *wholesaler* to *retail* outlets for sale to an *end-customer*. Horizontally-related firms do not buy and sell from each other, but share some other commonality: product, market, technology, infrastructure.

¹⁰ As cited in Phyllis A. Furdell (project manager) *Paths to Economic Opportunity: Case Studies of Local Development Strategies to Reduce Poverty* (Washington, D.C.: National League of Cities, 1995) p v.

¹¹ Siegel and Kwass, p 7.

¹² William A. Duncan. “An Economic Development Strategy” Social Policy. Spring 1986 p 20.

¹³ William A. Duncan. “An Economic Development Strategy” Social Policy. Spring 1986, p 22.

2

How Are the Programs Designed and Structured?

This chapter compares the planning, design and implementation of the four rural sector development programs we studied in depth: Alaska Village Initiatives (AVI), Ganados del Valle (GDV), Hosiery Technology Center (HTC) and Wood Products Competitiveness Corporation (WPCC). The analysis is organized around each program's:

- ◆ Origins, Mission and Constituencies
- ◆ Strategic Analysis
- ◆ Program Design
- ◆ Specific Program Components
- ◆ Linkage to Low Income Populations
- ◆ Budget and Staffing

Origins, Mission and Constituencies

These four sector programs have different origins and, accordingly, different missions.

The **Wood Product Competitiveness Corporation** was initiated and originally funded by *state government*. The wood products industry, long recognized as one of the most important segments of the Oregon economy, suffered severe job loss in the 1970s and 1980s, especially in primary timber-cutting and sawmill operations. The Oregon state legislature responded by establishing the Interim Legislative Committee on Forest Products to examine the issue, particularly the potential for increased value-added processing to create or retain jobs. The Interim Committee recommended creation of the WPCC and the Oregon legislature appropriated \$2.3 million for it in July 1991.

WPCC is now an independent, self-financed 502-c-6 trade association. Its membership consisted of 104 secondary wood products firms in 1995, 13 percent of the 800 secondary wood products firms

in Oregon. Its purpose is to devise and coordinate strategies to improve and promote the competitiveness of the secondary wood products industry. WPCC particularly targets small to medium-sized firms (between 10 to 70 employees).

The **Hosiery Technology Center** is funded by state government (through the community college system), but its genesis lies in an *industry association* – the Carolina Hosiery Association (CHA). CHA is a network of 200 North Carolina hosiery firms formed in 1963.

The idea for the Technology Center arose at a CHA retreat as a means to address several issues confronting the industry: modernization, upgrading employee skills and retaining good workers (who were leaving for jobs in other industries). The HTC was to be modeled after the existing Furniture Technology Center at Catawba Valley Community College.

The CHA successfully lobbied the state legislature to channel community college funds directly to Catawba Valley Community College for the HTC, and the HTC was established in 1990. Most firms served by HTC employ between 25 and 100 employees.

Ganados del Valle's mission has been to assist long-time residents of the Chama Valley – mostly Hispanic and Native American families – attain economic self-sufficiency. Its sectoral efforts have centered on developing agriculturally-based businesses. The organization has also sought to retain local control over land, water and other scarce natural resources. GDV attempts to combat poverty by intervening directly in the economy and by promoting equitable, sustainable development solutions.

GDV traces its origins to grassroots *community organizing* rather than state government or an industry association. Northern New Mexico experienced a groundswell of community organizing in

“These activists came to realize that the health issues of this community were a symptom of people’s poverty, and that actions to address the root causes of poverty were needed.”

the late 1960s, especially around land control and land use issues. Later, Chicano activists in the Chama Valley founded a community health clinic called La Clinica del Pueblo.

Those activists came to realize that the health issues of this community were a symptom of people’s poverty, and that actions to address the root causes of poverty were needed. Consequently, community activism focused on issues related to control and use of land, water and other natural resources, in addition to the struggle for economic self-sufficiency.

One event, a proposal to develop a large ski resort, galvanized this group. Activists argued the ski resort would bring low-paying seasonal employment for local people, would cause land prices to escalate, and would cause water pollution and water scarcity. This effort to stop the ski resort led to the formation of GDV in 1983.

GDV sees its constituency as the long-term Native American and Hispanic residents and families of the Chama Valley, rather than a set of businesses.

Alaska Village Initiatives is not a sectoral program per se, but rather a multi-faceted development organization in which tourism development is one industry of focus. AVI is similar to GDV in serving low income people, but it emerges from the community development corporation (CDC) tradition rather than community organizing.

AVI was begun as the Community Enterprise Development Corporation of Alaska (CEDC) by the Alaska Community Action Program in 1968. It became an independent nonprofit in 1969. In its early years, CEDC was funded by the old federal Office of Economic Opportunity, the main governmental funding source for CDCs in the late 1960s and 1970s.

AVI now has more than 140 member organizations, representing more than 50,000 Alaska resi-

dents. It is governed by a representative 23-member board. Its mission is “improving the well-being of rural Alaska communities, families and individuals by embracing their cultural values, and strengthening their self-reliance through training, technical assistance, loan programs, training and leadership development, and demonstration economic development projects.” Thus, AVI’s ultimate clients are rural, native Alaska communities, families and individuals.

However, in its tourism program, AVI mainly serves community-based or community-owned businesses in Alaska’s rural villages. It also serves some for-profit companies, including subsidiaries of the native regional corporations.

The origins, missions and constituencies of the four organizations are summarized in Table 1. In terms of mission and clientele, HTC and WPCC are similar. Both are industry-driven programs concerned principally with industry competitiveness. Impacting poverty is not an explicit part of either organization’s mission.

HTC and WPCC target similarly sized, small-to-medium manufacturing firms. Such targeting is common among manufacturing sector programs. Firms larger than 100 employees generally have sufficient internal expertise so as to not need a sector program’s services.

AVI’s tourism program and GDV both grew out of anti-poverty efforts, although from different traditions: community economic development and community organizing. Both retain an anti-poverty mission, and significantly, both also work to preserve indigenous cultures. This is clearly a function of the native and ethnic communities in which they work.

GDV is more localized and thus is able to focus on a fairly small group of families and residents. AVI is more of an intermediary, serving small villages scattered over a large area. AVI serves community-based businesses that, in turn, directly

“AVI’s tourism program and GDV both grew out of anti-poverty efforts, although from different traditions: community economic development and community organizing. Both also work to preserve indigenous cultures.”

**TABLE 1
ORIGINS, MISSION & CONSTITUENCY**

	Origins	Mission	Constituency
AVI	Program of an established CDC	Improve well-being of rural Alaska communities; embrace cultural values; strengthen self-sufficiency	Community-based and private, for-profit tourism-related businesses
GDV	Community organizing	Economic self-sufficiency of residents; traditional agriculture-based business	Hispanic and Native American families
HTC	Industry association	Improve skills of workforce; hosiery sector competitiveness	Small, mid-sized firms (25-100 employees)
WPCC	State legislature	Devise and coordinate strategies for industry competitiveness	Small, mid-sized firms (10-70 employees)

benefit families and individuals. It does retain a close relationship with the leaders of those businesses (who are often community leaders as well).

How Did Each Program Analyze Its Industry’s Needs and Potential?

The programs of all four institutions are based on a strategic analysis of their sectors.

The strategic analysis was probably more formal for the Wood Products Competitiveness Corporation and the Hosiery Technology Center. The Oregon Interim Committee on Forest Products commissioned a study of the wood products industry by the Northwest Policy Center at the University of Washington, which provided the blueprint for the design of the WPCC.

Over the years, HTC has added more sophistication and depth to its knowledge of the industry by

adding partners with technical expertise in market analysis, state-of-the-art competitive business practices, research and development. For example, HTC worked with the Carolina Hosiery Association, the National Association of Hosiery Manufacturers and the North Carolina Alliance for Competitive Technologies (a state agency which coordinates research and technology transfer) on a study (*Plan for the Preservation of Hosiery*) that has guided HTC’s programming.

While Alaska Village Initiatives and Ganados del Valle may not have commissioned formal studies, clear strategic analyses of their sectors have emerged. AVI draws on state-conducted analyses of tourist industry trends as well.

Wood Products Competitiveness Corporation

The wood products industry is a significant contributor to the Oregon economy. About 37 percent of Oregon’s overall employment (as much as 63 percent in wood-producing counties) is generated

“Small and medium-sized rural businesses often do not have the resources to conduct research and development, customize products, or stay abreast of market trends.”

by the wood products industry.¹ The industry has two segments. The *primary* wood products sector harvests trees, transports logs to mills and mills logs into lumber. The *secondary* wood products industry adds value to timber by manufacturing it into finished items such as flooring and moldings, kitchen and vanity cabinets, doors and windows, and yurts and canoe paddles.

The Northwest Policy Center’s analysis highlighted several key issues shaping the future of each segment:

- ◆ While employment in primary wood products was declining precipitously, the secondary products industry saw employment growth in the 1970s and 1980s. Environmental restrictions on harvesting old growth trees will lead to continued employment losses in primary products.
- ◆ Reductions in old growth timber harvesting will reduce the supply of the high quality wood that provides the secondary wood product industry’s competitive advantage. Thus, the industry needed to learn how to use lower and alternative grades of wood and tree waste products.
- ◆ Rather than a single large commodity market, there are hundreds of small niche markets in the secondary wood products industry. To be competitive, manufacturers must increase their range of products and their ability to customize products for buyers.
- ◆ In order to grow, the industry must find new ways to expand markets and compete globally.
- ◆ Small and medium-sized rural businesses often do not have the resources to conduct research and development, customize products, or stay abreast of market trends. Firms in remote areas may also be isolated from capital sources and face higher transportation costs.

As part of its sector analysis, NPC identified organizations in the United States and overseas that

were increasing the competitiveness of the secondary wood products industry in their areas. The most promising approach appeared to be the flexible manufacturing network, modeled after a network that NPC and Oregon and Washington policymakers visited in Skelleftea, Sweden. Accordingly, NPC recommended a state-funded program to stimulate a manufacturing network. Through such a network, Oregon secondary wood product manufacturers could:

- ◆ Share the high cost of market research — vital to the development of niche market businesses and procuring alternative sources of wood.
- ◆ Cut the cost of research and business assistance services for the transfer of new technology.
- ◆ Combine production in order to pursue larger contracts and markets.
- ◆ Organize training and services in clusters rather than individually to lower per-firm costs.
- ◆ Develop joint product lines to take advantage of separate products that are complementary.
- ◆ Increase market share and export earnings.
- ◆ Improve access to capital from lenders who, at the time, were uncomfortable extending credit to what they believed was a declining industry, largely because of the controversy around timber cutting and its effect on saw mills.

To summarize, market and supply issues are critical to the growth of the Oregon secondary wood products industry. Market issues are shaped by two factors: a highly fragmented, “niched” market structure, and the need to capture Pacific Rim export opportunities. Impending wood supply shortages necessitate diversifying supply sources and adopting new technologies that utilize lower grades of wood. Flexible networks are a promising approach for smaller firms to pool resources and gain economies of scale in R&D, marketing, worker training and product development.

“To remain competitive, the hosiery industry must increase its productivity through upgraded technology, draw from a trained workforce to operate computer-driven equipment, and deliver more specialized products quickly.”

Hosiery Technology Center

North Carolina is home to over 300 hosiery mills producing nearly 60 percent of all hosiery manufactured in the US.² These mills employed 38,400 people in 1995, most whom are women (92 percent) and minorities.³ While much of the North Carolina textile industry has lost plants to Asia and Latin America, the hosiery industry has been relatively stable, suffering a relatively modest loss of employment over the last 10 years (69,500 to 65,000).⁴ Three forces are driving change in the hosiery industry:

- ◆ Global competition.
- ◆ Computer technology.
- ◆ Shift in power from wholesalers to retailers.

These forces have several implications. First, the hosiery industry got established in North Carolina because that state was a source of cheap, non-unionized labor. With global competition, North Carolina is no longer a cheap source of labor. Second, computerized knitting machines from Italy and Japan have revolutionized sock production speed, design and color variability — dramatically expanding consumer choices in styles, colors and patterns.

Small-to-medium sized firms in North Carolina have been slow to adopt these new technologies. This computer technology demands higher-skilled workers to operate the new equipment. In North Carolina, hosiery firms compete for skilled production labor with the furniture manufacturing and the fiber optics industries, which often pay better wages. The industry also has less clout than other larger or more “glamorous” industries in getting public dollars for the research and development of new technologies needed to increase industry competitiveness.

Finally, major discount retailers such as Wal-Mart and K-Mart began buying directly from the mills in the 1980s and exert great market power. Retailers

want more customized ordering and delivery services: they demand smaller lots of a greater variety of styles, delivered to more locations, at lower prices. With their huge buying power, such retailers exert great pressure on mills to meet or beat the prices of other manufacturers, whether in Mexico or North Carolina.

In summary, the hosiery industry has changed because of global competition, new technology and shifts in buyer power favoring large discount retailers. To remain competitive, the industry must increase its productivity through upgraded technology, draw from a trained workforce to operate computer-driven equipment, and deliver more specialized products quickly. The industry’s trade association kept abreast of and correctly recognized the sharp changes in market circumstances, studied and tracked the changes as they unfolded, and supported development of tools for responding.

Alaska Village Initiatives

AVI entered the tourism sector in 1987 with the creation of Alaska Village Tours. It recognized that tourism had become the fourth largest industry in Alaska and is experiencing tremendous growth — 5-7 percent annually through the early 1990s. Moreover, tourism is growing while traditional rural industries — such as fishing — are declining.

As with HTC, AVI’s strategic analysis reflects changes in the structure and dynamics of its sector. These changes include:

- ◆ Tourism marketing in Alaska is increasingly dominated by Regional Destination Marketing Organizations (DMOs) located in the more accessible and populated main corridor. Remote areas in central and northwest Alaska are not served by DMOs.
- ◆ Most visitors now purchase their tour packages prior to leaving on their trip. To generate visits

“AVI’s tourism strategy promotes a theme (native culture) rather than a particular destination. This approach is consistent with another of AVI’s goals: preserving native culture.”

to remote Alaskan villages, a marketing mechanism for reaching visitors prior to their departure was needed.

- ◆ Tourism to Alaskan villages had historically been a niche business served by small, independent tour operators. Vertical integration by cruise and airline companies has squeezed out many smaller independents and focused more tourism in the central corridor, reducing tourism through native villages.

AVI’s tourism strategy promotes a theme (native culture) rather than a particular destination. This approach is consistent with another of AVI’s goals: the preservation of native culture. AVI’s tourism strategy is based on establishing a “vertical” intermediary that consolidates marketing and promotion for a range of community-based tourism businesses. This marketing function is supplemented by finance, technical assistance and training to strengthen and expand existing community-based tourism businesses, including tours, performances, hospitality, and cottage-scale manufacturing of gifts and artifacts. This strategy parallels MACED’s strategy of strengthening market access through a “vertical intermediary” and providing financing and technical assistance to help the lumber mills grow.

Ganados del Valle

GDV is the exception in that agriculture, its target sector, is not statistically a major employer in the local economy. Less than 4 percent of employees worked in agriculture in Rio Arriba County between 1981 and 1989,⁵ yet 41 percent of the county’s land is devoted to agriculture and it had 964 farms in 1992.

GDV’s strategic rationale is social, cultural and historical as well as economic. GDV maintains that the Native American and Hispanic communities’ sense of cultural identity and ethnic pride is rooted in traditional practices tied to the land. The region had been settled since at least 800 A.D., and Mexi-

can and Spanish settlers arriving in the early 1600s brought a form of communal land ownership, land grants and a way of life based on sheep herding.

GDV’s economic development strategy has four components. First, it has attempted to build vertically from the existing agriculture-based activity: sheep raising and weaving. The organization believed that through vertical development, GDV could make maximum use of available resources and build economic structures to retain more dollars in the community. Second, GDV has embraced economic development based on weaving and other artisan skills, which in addition to producing income, helps maintain the cultural identity of the Native American and Hispanic community. Third, community activism and advocacy remain a part of the overall development strategy, particularly around issues of land use and control and environmentally sustainable economic development. Finally, leadership and human capital development are important parts of GDV’s overall development strategy.

The major elements of each strategic analysis are summarized in Table 2.

How Are the Programs Designed?

Table 3 summarizes the program components of the four projects. The general patterns illustrate some interesting relationships among mission, strategic analysis and the industry being served.

HTC and WPCC face somewhat related competitiveness issues as a result of globalization, technology change and labor quality and supply shortages. Of these two, HTC is clearly the more tightly focused. Although Table 3 lists seven functions for HTC, HTC fundamentally addresses just two industry issues:

- ◆ Technology modernization
- ◆ Workforce supply and quality

“GDV’s strategy is social, cultural and historical as well as economic. GDV maintains that the Native American and Hispanic communities’ sense of cultural identity and ethnic pride is rooted in traditional practices tied to the land.”

**TABLE 2
MAJOR ELEMENTS OF STRATEGIC ANALYSIS**

	Major Strategic Elements
AVI	<ul style="list-style-type: none"> • Vertical integration by large tour wholesalers into retail tour operations • Need for direct marketing capacity • Cultural preservation • Lack of business capacity in villages
GDV	<ul style="list-style-type: none"> • Traditional agriculture and craft-based activities as starting point • Vertical development strategy • Cultural preservation • Advocacy and leadership development
HTC	<ul style="list-style-type: none"> • Global competition creates price pressure • Market restructuring demands more customization of products and service • Need to adopt computer-based technologies • Cheap labor no longer a competitive advantage • Need to develop new technologies • Need to recruit workers during labor shortage, change public image of the industry • Workforce not prepared for changes in technology
WPCC	<ul style="list-style-type: none"> • Highly niched market demanding customized products • International market development necessary • Diminishing supply of high quality wood stock • Flexible manufacturing network to address multiple issues • Need to recruit workers during labor shortage, change public image of the industry • Workforce not prepared for changes in technology

HTC’s R&D, technology transfer and management-training functions relate to technology modernization, while “employment and training” relate to both objectives (workers must be trained to use the new technology). Networking and lobbying/advocacy support both objectives.

WPCC addresses six issues:

- ◆ Technology modernization
- ◆ Workforce supply and quality
- ◆ Market development
- ◆ Resource supply development
- ◆ Access to financing

- ◆ Creation of a flexible manufacturing network

WPCC attempts to infuse this last issue — creation of a flexible manufacturing network — throughout its programming, but it is also specifically encompassed within the Networking and Communication function.

These differences in scope reflect several factors, including the industry’s existing institutional infrastructure as well as the leadership of the sector programs themselves. The North Carolina hosiery industry is a mature industry with well-established firms, products and markets; the challenge it faces is upgrading productivity and quality of service (e.g., product customization and

“The North Carolina hosiery industry is a mature industry with well-established firms, products and markets. The challenge is upgrading productivity and quality of service to retain its competitive position.”

**TABLE 3
MAJOR PROGRAM ELEMENTS**

	AVI	GDV	HTC	WPCC
Networking & Communications	X	X	X	X
Lobbying/Advocacy		X	X	X
Research & Development			X	
Technology Transfer			X	X
Management Training	X	X	X	X
Employment and Training	X		X	X
Finance	X	X		X
Supply Development		X		X
Marketing	X	X		X
Venture/Small Business Development	X	X		

just-in-time delivery) to retain its competitive position.

On the other hand, the secondary wood products industry in Oregon is less mature. Oregon’s secondary products industry is still growing in both the number of firms and employees. Many firms are still searching to find more viable, lucrative niches; others are operating at a “craft” or “artisan-level” with minimal business sophistication; still others are starting-up. In addition, market knowledge is more fragmented in the secondary wood products industry than the hosiery market, which is structured around a relatively small number of wholesalers and large, direct-purchase retailers. Consequently, the market development function is more critical for WPCC.

The environments in which HTC and WPCC operate also differ in that the hosiery industry in North Carolina has been networked since 1963 through the Carolina Hosiery Association (formally the Catawba Valley Hosiery Association). WPCC is relatively new as a network, formed in 1991. The

North Carolina firms have a long history of collaboration on which HTC can build, while WPCC is starting nearly from scratch.

WPCC is trying to change the relationships between firms in the cluster and promote a high level of interchange in accordance with its flexible manufacturing network model. In fact, WPCC staff say they spend the majority of their time networking: setting up forums and mechanisms for businesses to cooperate and link up with suppliers, buyers, bankers and other resources.

WPCC’s broader scope is also related to the particular circumstances of its sector and, possibly, to management discipline. Clearly, WPCC’s involvement in resource supply reflects Oregon’s wood products sector. In contrast, raw material supply does not appear to be a problem facing North Carolina’s hosiery firms. WPCC’s early emphasis on financing was partly a coincidence of timing: WPCC was created when banks were decreasing commercial lending. In addition, lenders at that time thought the wood products industry was de-

“WPCC staff spend the majority of their time networking: setting up forums and mechanisms for businesses to cooperate and link up with suppliers, buyers, bankers and other resources.”

clining. The reasons for HTC's lack of attention to capital issues are less clear. It may be because capital access is not an issue for its industry, or because HTC wants to maintain its focus. HTC says that the “effort cannot be too broad. There is so much to learn and know in order to make a difference in the industry.” By contrast, one criticism of WPCC has been that it tries to do too much and lacks focus.

AVI and GDV also have some programmatic similarities stemming partly from their missions of strengthening low income communities and families, and their commitment to indigenous traditions and culture. AVI and GDV have six common program components.

Perhaps the most important similarity is their emphasis on direct venture creation and small business development. AVI and GDV are driven towards these business creation strategies because both have very limited existing industry bases. While HTC and WPCC work with established business clusters consisting of several hundred firms and tens of thousands of employees, AVI and GDV are, in effect, trying to create new sectors or clusters. Such a strategy entails more direct intervention in creating new firms, nurturing fledgling ones, and providing marketing, finance and business technical assistance supports. Given the size and stage of these businesses' development, technology modernization and workforce supply (employment and training) may be somewhat lesser issues at this point. (Although, according to AVI, many Native workers are unfamiliar with the culture of structured work: attendance, timelines, etc.)

In choosing a vertical development strategy, GDV has made new venture creation the centerpiece of its economic development program. Rio Arriba County has primary producers — sheep growers and artisans — but little in the way of businesses that can add value to raw product or sell finished goods to wider markets. Since those

processing and marketing businesses do not exist, GDV is compelled to create them. Like AVI, GDV's strategy resembles MACED's timber industry strategy in creating ventures which provide new market channels for existing businesses.

AVI has a bit more of an existing business constituency: community-owned or locally-owned tourism businesses in more than a dozen villages employing about 200 people, many begun with AVI's help. As a result, it puts more emphasis on marketing, financing and technical assistance to support their development. The basic elements of AVI's program are:

- ◆ A joint marketing program with the message “include native tour products on your upcoming Alaska visit” to prospective visitors, the travel press and to tour wholesalers and specialty cruise companies.
- ◆ Technical assistance and finance to existing rural, community-owned tourism operators to strengthen management skills and product viability.
- ◆ Feasibility analysis, business planning, financing and related technical assistance to new or nascent tourism enterprises. These include small entrepreneurial efforts and a small but steady flow of major projects, often appearing through AVI's general business assistance program rather than the tourism-specific programs.
- ◆ On-the-job training for tour guides, leaders of local activities, performers, crafts people and managers.

Finally, GDV's explicit advocacy work is important to note. Its development strategy features both economic development and political empowerment. Its advocacy work is qualitatively different from that of the other three organizations in its persistence, depth and desire to address broader issues. The organization has a strong commitment to and long history of developing leaders from its community.

“AVI and GDV are trying to create new sectors or clusters. This entails more direct intervention in creating new firms, nurturing fledgling ones, and providing marketing, finance and business technical assistance.”

How Do The Programs Compare?

While these four rural sector projects share common program elements, these elements are often designed and implemented in different ways.

Networking and Communications

Networking and communications are at the heart of any sector strategy, and all four organizations engage in them, though their purpose and design differs significantly. With WPCC, communications is an explicit core activity intended to build an interactive manufacturing network. WPCC sponsors annual conferences and local meetings so businesses can share problems and solutions and start working together as an industry. WPCC publishes a monthly newsletter, *Wood Industry News*, which circulates to 100 members and a quarterly, *The Cutting Edge*, to 2600 businesses, policymakers, small business development consultants and other people connected to the secondary wood products industry.

HTC is extremely well-networked with firms in its industry, primarily through its close ties with the Carolina Hosiery Association (CHA), a formal network of hosiery firms. HTC has also forged strong relationships with other state and federal agencies relevant to the hosiery industry. Although separate entities, CHA conceived the idea for HTC, advocated for it in the state legislature, and chose HTC's director. CHA has 200 member firms. It publishes a newsletter, *Legwear Trends*, which is distributed to over 2700 manufacturers, retail buyers, suppliers and government officials. CHA is the conduit for industry participation in HTC. CHA's technology committee in particular works closely with HTC to recruit firms to modernize and train their workers. CHA publicizes HTC events and successes to member firms, and HTC staff use CHA events (meetings, conferences, softball games) to network with and reach out to firms.

HTC has facilitated *firm-to-firm* communication through an on-line network called Hosiery Information Production Services (HIPS). Operated through the Clemson University Apparel Research Center, HIPS links 42 firms throughout the United States. Companies can post messages for product sourcing, upcoming events, seminars and OSHA requirements.

For AVI, the networking and communications function is probably most strongly embedded within the Alaska Native Tourism Council, a cooperative marketing association for community-owned tourism ventures. Cooperative marketing for 12 to 15 Alaska villages necessitates a high level of networking and communications. ANTC members meet formally and agree on costs, marketing and distribution strategy. Each member makes a substantial cash contribution to joint marketing efforts.

Networking and communications appear to be a more informal activity with GDV, which does not have a formal networking and communications program. However, it does have strong community roots, with community residents on its board and involved with its businesses, programs and services. Networking and communications are woven into its daily business rather than being a distinct activity.

Lobbying/Advocacy

Lobbying and advocacy, although important for all of the organizations, do not appear to be a top priority for them. Most of HTC's and AVI's lobbying appears to involve securing continued public resources for its projects and operations. WPCC sponsored an "Industry Day" in 1995 to lobby the legislature for continued funding and to alert them to the community college's need for continued training dollars. Early in its history, WPCC tried to affect forest-harvesting policies, but soon realized that there were too many larger interests involved for them to be effective.

“HTC and WPCC have stressed the connection between equipment modernization and worker training. The former cannot proceed without the latter.”

Similarly, GDV has advocated for grazing rights on federal lands, but has found that to be difficult. GDV has been an advocate for an environmentally sustainable economy, primarily by educating state and local leaders about how old grazing practices can improve wildlife habitat.

Research & Development

HTC is the only organization actively engaged in technology research and development. Its R&D priorities were specified in the *Plan for the Preservation of Hosiery* and are carried out in partnership with North Carolina State University. HTC is responsible for developing new boarding technologies,⁶ serving as a clearinghouse for resources (e.g., software development, industrial engineering) that enable businesses to shift to knit-to-order processes, and acquiring new technologies in dyeing and finishing.

Technology Transfer/Modernization

HTC and WPCC transfer technology to firms (such as knowledge about new and improved computerized machines and better management techniques). Their activities have several themes.

- ◆ HTC and WPCC have stressed the connection between equipment modernization and worker training. The former cannot proceed without the latter.
- ◆ Modernization can involve *process or management* upgrades rather than just technological improvement. Examples of process modernization include: conformance with international quality standards, implementation of just-in-time delivery systems, Total Quality Management, and compliance with occupational safety and health standards.
- ◆ Technology transfer often takes place as part of each organization’s management-training activities.

HTC’s approach to technology transfer has been deep and heavily “partnered.” Table 4 itemizes its technology transfer activities and their number of participants.

Much of HTC’s technology transfer work has been conducted with the Southeast Manufacturing Technology Center, a federally-funded organization which helps small and mid-size manufacturing companies modernize their business practices, find technology solutions and strengthen workforce skills. SMTC entered the hosiery industry by conducting “competitive reviews” of 13 firms, examining performance indicators in management, quality, technical, delivery and cost/competitiveness. The competitive reviews resulted in a snapshot of current business and manufacturing operations and an action plan identifying strengths, areas for improvement and recommendations. Firms could request further assistance from SMTC and HTC to help implement recommendations.

HTC also holds courses and seminars on modernization. Topics have included: ISO 9000 (meet-

**TABLE 4
HTC’s TECHNOLOGY TRANSFER
ACTIVITIES, 1995-96**

Activity	Number of Participants
<i>Technology Transfer</i>	
Seminars	126
Occupational Safety	66
Total Quality Management	33
Machine demonstrations	170
HIPS Network (firms)	42
One-on-one business assistance (firms)	6
Total	443

“AVI often works with potential start-ups, for which basic feasibility issues are critical. Much effort goes into helping people learn to assess what is needed for success besides an ‘attraction.’”

ing international technology/quality standards); whether it is better to lease or buy upgraded machines; Bar Coding; and Just-in-Time Training (HTC simulates how firms can get socks to buyers very quickly without keeping them stocked). HTC sponsored three well-attended machine demonstrations in 1995-96 (so managers can “kick the tires without the salesman around”).

Technology transfer activities are not as extensive in WPCC as they are in HTC, but WPCC transfers technology to firms at its seminars and its annual Woodworking Conference, and trains workers to operate new, computer-aided machinery. The training has covered topics such as new technologies and utilizing lower grades and alternative types of wood without compromising product quality. At the 1996 Woodworking Conference, WPCC demonstrated new gluing, sanding and molding machinery and led 50 people on a tour of secondary manufacturing plants.

Management Training

All four organizations do some management training. For WPCC and HTC, this training focuses on technology transfer and is carried out through the technical seminars and conferences described earlier. HTC has also run courses for managers on occupational safety and works directly with firms on Total Quality Management.

Management training has a somewhat different meaning for GDV because the “firms” it works with are either microenterprises or cooperatives. Consequently, GDV’s training covers all areas of business development rather than specialized, technical topics. GDV has relied heavily on consultants. It has arranged for the regional community college to give GDV members credits towards an associate of arts degree for the training.

AVI works with small businesses as well as micro-scale enterprises and cooperatives in tourism. It often works with potential start-ups, for which ba-

sic feasibility issues are critical. Much effort goes into helping people learn to assess what is needed for success besides an “attraction.” For many start-ups and others, it is basic training on running a tourism business that is key, including issues of product definition, marketing, service expectations, the culture of dealing with a corporate cash economy outside people’s villages, etc.

Employment and Training

HTC, WPCC and AVI have worker employment and training components. WPCC has focused on establishing a Secondary Wood Products Training System for the industry. WPCC staff facilitated a process involving community colleges and wood product manufacturers to develop such a system. WPCC and its partners designed and tested three basic training courses. In April 1995, state funding enabled the creation of the Training System, and courses began at three community colleges. The System offers several types of training:

- ◆ Entry-level, geared toward recent high school graduates, the unemployed and dislocated workers. The most important issues covered are work ethics and team building.
- ◆ Enhanced entry-level, with more emphasis on work readiness, targeted to welfare recipients.
- ◆ Tailored training courses, for supervisors, managers and technicians in technologies such as computer-aided design.
- ◆ Specialized training, to teach existing workers how to operate specific machines.
- ◆ Youth apprenticeship, in conjunction with high school wood shops. (This program was still in development in 1996.)

Increasingly, computers are crucial in the production of secondary wood products. They do such tasks as organize the cuts in a piece of lumber to maximize the productive area and minimize the amount lost due to knots and the like. WPCC train-

“HTC’s training focuses on acquiring hard skills. Classes are small so students can stand around a machine with the instructor. They are also short-term and sometimes put together quickly on demand.”

ing helps workers become comfortable with computers and controlling more sophisticated machines.

Similar to WPCC’s tailored and specialized training, HTC’s employment and training activities focus on acquiring hard skills. Courses are taught in knitting, seaming, dyeing, finishing and machine maintenance and repair. Classes are small – four to five people — so students can stand around a machine with the instructor. They are also short-term: production worker classes are 30 hours and technician classes are 60 to 80 hours. HTC sponsors classes on demand. It takes a “just-in-time” approach, with people being trained when businesses express a need and HTC knows it can place graduates quickly. HTC can respond very quickly, sometimes putting together a class in as little as 48 hours.

One purpose of HTC’s and WPCC’s employment training is to generate more career interest among people entering the labor force. To encourage people to enter the industry, HTC gives presentations about the industry and jobs in a hosiery mill at schools and promotional events. In its six-year history, HTC has reached more than 700 people, including more than 200 students and teachers in 1995.

For HTC especially, and for WPCC as well, the focus on training emerges from the need to help its industries modernize to keep competitive in changing markets. That means training workers to do more with flexible, rapidly adjustable machinery, allowing efficiencies and responsiveness in production processes, and serving changing markets more effectively. The new technologies and processes mandate additional skills for workers.

Employment and training are a smaller part of AVI’s activities, and have a different focus. From the start of its tourism efforts, and in its prior work on small business development, AVI has trained entrepreneurs — both those with ideas and those

with fledgling businesses. In the past, its own staff has conducted on-the-job-training for business leaders and others in villages in which it was helping promote tourism. Training entrepreneurs remains important. But for efficiency in a geographically enormous and thinly populated place, AVI now tries to do it as a combination of group workshops, phone contacts and on-site technical assistance.

Now that some more tourist-directed businesses are up and running, there is increased need to prepare young people from individual villages to work for these local tourist efforts. AVI has found that many residents are inexperienced with basic aspects of the cash economy, including consistent attendance at the workplace, regular and precise working hours, customer service orientation, etc. AVI cannot deliver on-site training to deal with those issues. Instead, it trains local people to be the trainers and leaders. This approach both deals with the challenge of rural dispersion and helps develop local leaders.

Finance

AVI, GDV and WPCC conduct activities devoted to gaining access to capital and financing. AVI and GDV operate revolving loan funds. One purpose of GDV’s fund has been to capitalize GDV’s own businesses: Tierra Wools, for example, was established and expanded with financing from the fund. Another purpose has been micro-loans to artisans for purchasing equipment and materials, and working capital.

Rather than operate its own lending program, WPCC helped create a \$35 million, state-funded Credit Enhancement Fund that guarantees bank loans on inventory and accounts receivable. The state legislated a \$7 million fund, which was leveraged five times to \$35 million. The company pays an insurance fee to the Oregon Economic Development Department (OEDD), which guarantees receivables and inventory between 80-95 percent.

“GDV tries to expand and improve the quality of local sheep herds, particularly the nearly extinct Churro sheep, which was initially brought into the region by Mexican and Spanish settlers.”

Private banks make the loans and the OEDD guarantees them.

WPCC also has a system for referring its member businesses to appropriate lenders. WPCC keeps a list of capital sources. Its finance consultant can help individual businesses.

Supply Development

WPCC and GDV have programs to increase or enhance the supply of raw material. With diminishing supplies of Douglas Fir, long the region's dominant wood type, WPCC has explored alternative sources and types of wood. In 1994, WPCC founded the Juniper Forum, which meets regularly to learn more about processing juniper wood as an alternative to fir. To encourage firms to diversify the types and grades of wood they use, WPCC publishes information about the use of alternative hardwoods and links producers to new sources of wood overseas.

WPCC also maintains the Wood Exchange, a forum through which primary mills can list their lumber and secondary manufacturers can list their downfall and residual items for sale. More than 20 companies post 100 products monthly, and the listing is mailed to all WPCC members.

GDV's supply development activities try to expand and improve the quality of local sheep herds, particularly the nearly extinct Churro sheep, which was initially brought into the region by Mexican and Spanish settlers. GDV has organized a sheep grower's cooperative, which works on sheep breeding, grazing rights and general development of the Churro sheep. To expand the size of the herds, GDV has a "livestock loan" program. Growers are given a "loan" of 10-15 sheep, which are returned to the fund in six years. The borrower also agrees to return one sheep per year as "interest."

Marketing

While AVI, GDV and WPCC offer marketing assistance, the three organizations have taken dramatically different approaches. AVI promotes Alaska village and cultural tourism to the public through its Alaska Native Tourism Council (ANTC), a cooperative marketing association for community-owned tourism ventures in 12-15 native villages. Marketing efforts include mailings to over 100,000 prospective visitors annually (based on a sophisticated analysis of postcards sent in by potential visitors requesting information from the state tourism office), advertisements in travel magazines, promotion in the travel media, finding and then selling Native tour products to specialty tour groups, and creating awareness of village tours in the general tourism industry. In addition, ANTC helps its member cooperatives market their own tourism products.

WPCC's marketing program is designed to increase information flow and strengthen relationships between producers and buyers of secondary wood products. Its publications contain trade leads and specific, detailed information about marketing ideas and growing markets. WPCC sponsors an annual Buyers/Sellers Conference, where buyers can describe their needs to manufacturers. WPCC has also organized a Pacific Rim Exports conference about the growing Asian furniture and housing markets, and organizes member participation in trade shows. Unlike AVI, WPCC does not *market* specific products, but rather makes *information* on markets and sales opportunities available to manufacturers.

WPCC also created the Made in Oregon program, a marketing tool similar to the Good Housekeeping seal of approval. This designation informs buyers that they are getting a product that meets standards of quality, workmanship and "environmental stewardship." Members must sign a contract guaranteeing that the product is made of wood, is at least 50 percent manufactured or as-

“WPCC created the Made in Oregon program, a marketing tool similar to the Good Housekeeping seal of approval. Buyers know they are getting a product that meets standards of quality, workmanship and environmental stewardship.”

sembled in Oregon, and that 35 percent of its wood came from Oregon. The campaign uses Oregon’s environmentally-friendly forestry practices as a marketing tool to appeal to environmentally conscious consumers.

In contrast to AVI and WPCC, GDV has birthed several business ventures that purchase products from local sheep growers, artisans and microenterprises and re-sells them to retailers, wholesalers and individual customers. Thus, GDV’s enterprises function as *market channels* for sheep growers, artisans and microbusinesses. Tierra Wools markets wool products for weavers and spinners, Pastores Lambs is a marketing channel for sheep growers, and Pastores Feed and General Store is a retail outlet for local artists, artisans and indigenous food makers.

HTC does not have a marketing program, but its involvement with HIPS on-line network helps some firms access more market information. Because retail store consolidations provide fewer vendors, the industry needs new marketing approaches and new market networks. The HIPs network potentially opens new markets for firms, reduces mailing and telephone costs, and strengthens collaboration among firms.

Venture and Small Business Development

While small business and venture development are crucial to GDV’s and AVI’s strategies, the two organizations have taken contrasting approaches. GDV creates new business ventures, which it owns and manages. Its process for venture creation is:

**TABLE 5
GANADOS DEL VALLE
NEW VENTURE START-UPS**

Enterprise	Year	Description
Tierra Wools	1983	Separately incorporated wool weaving cooperative producing mats, wall hangings, sweaters, jackets and other products.
Sheep Growers Cooperative	1983	Cooperative: members retain individual ownership of sheep but share responsibilities for caring for the flocks.
Pastores Lambs	1989	Unincorporated subsidiary of GDV. Produces and distributes organic lamb and specialty meat products.
Rio Arriba Wool Washing	1990	Unincorporated subsidiary of GDV. Wool washing plant. Plant closed pending repairs to septic system.
Pastores Feed and General Store	1990	Unincorporated subsidiary of GDV. Retail store for residents and tourists; arts, crafts, books, foods, perishables.
Pastores Artisans	1994	Unincorporated subsidiary of GDV. Wholesaling service for local artisans.
Otra Vuelta	1996	Unincorporated subsidiary of GDV. Produces floor and vehicle mats from discarded tires.

“Rather than creating, owning and managing its own ventures, AVI generally provides resources and services to help community-based organizations and individuals start-up or grow their own enterprises.”

- ◆ GDV staff conceptualizes businesses that add value to local resources and, wherever possible, contribute to Hispanic cultural revitalization.
- ◆ GDV secures funds, largely from private foundations, for research, start-up and market testing.
- ◆ Community members are hired and trained to do production, marketing and management.
- ◆ In one case so far (Tierra Wools), the business has been spun off as a separate corporation owned by a cooperative of local women.

The ventures GDV has created are described in Table 5. GDV's vertical expansion strategy is evident in the chronological progression shown in this table. GDV's first enterprise was Tierra Wools (1983). The sheep grower's cooperative (1983) provides raw material (wool from the Churro sheep) for Tierra Wools. Pastores Lamb (1989) processes and sells lamb products from the sheep growers cooperative. The Rio Arriba washing plant (1990) washed wool, which had been done mostly by hand. Pastores Feed and General Store (1990) provides a direct retail outlet for products from Tierra Wools and other artisans, while Pastores Artisans (1994) wholesales such products. Otra Vuelta produces industrial quality mats, many of which are also retailed through the General Store.

In addition to its own start-up ventures, GDV works with individual entrepreneurs concerning product development, presentation and basic business procedures. GDV can sometimes provide financing through its revolving loan fund. Products from many of these microenterprises are sold through Pastores Artisans or the General Store.

AVI's venture development strategy mostly involves finance, technical assistance and market development services. Rather than creating, owning and managing its own ventures (which it did earlier with a highly successful string of stores), AVI generally provides resources and services to help community-based organizations and individuals start-up or grow their own enterprises. AVI's

staff includes finance and business development specialists and trainers to help these enterprises grow. AVI's approach to venture development grows out of its experience in developing community fishing cooperatives, general merchandise retail cooperatives and native arts cooperatives. That in-house expertise is now being applied to the tourism industry.

AVI has created specialized programs for developing tourism businesses. In earlier years, Alaska Village Tours helped develop local tourist "attractions" in very hands-on ways. More recently, the AVI program under the Rural Tourism Center helps people do an initial reality check of ideas for businesses, runs training seminars for entrepreneurs and provides technical assistance. But it does less hand-holding than before for new, small-scale efforts. In addition, the overall AVI business development division helps assess and get financing for several big deals, including a \$150 million Marine Science Center being put together for Seward, Alaska.

How Do the Programs Reach Low Income People?

These programs were chosen for this study because of their commitment to training and employing disadvantaged people. All four feature a job placement, job training and/or job creation effort.

Given their missions, the businesses they target and the people those businesses employ, AVI and GDV have clear links to low income populations. The links extend to their boards and, in GDV's case, to staff recruitment as well.

Although HTC and WPCC have no explicit mission to aid low income people, they do have ways of targeting and training low income populations. HTC has partnered with the North Carolina Department of Labor (NCDOL) and Lutheran Family Services (LFS) to recruit welfare recipients, displaced

“HTC and its partners have recruited welfare recipients, displaced workers and recent immigrants for its worker training and placement services.”

workers and recent immigrants for its worker training and placement services. NCDOL asks nonprofit and public agencies to refer such people, and it covers training costs. NCDOL also educates employers about cultural diversity, discrimination and new state welfare policies. In order to connect social service agencies to the new HTC site at Randolph Community College, NCDOL representatives conducted workshops that brought together state welfare personnel, hosiery mill managers and supervisors. Employers have been eager to participate because “they’re desperate for workers.” Finally, Randolph’s HTC director speaks to welfare recipients at the Department of Social Service once a month to recruit people into the training program. The relationship works in part because HTC training programs are quick, inexpensive and do not require much previous schooling for trainees to succeed.

WPCC also has a way to link with low income populations, but because its training program is much younger, the links are less well-developed. Its “Enhanced entry-level” training course places more emphasis on work readiness and targets welfare recipients. In its first year, 10 people were trained through this course, with six being placed into jobs. WPCC’s entry-level training also serves low income persons, though it does not explicitly target them.

**TABLE 6
BUDGETS AND STAFF SIZE**

	Year	Budget	Staff Size
AVI	1996	\$300,000 ¹	4
GDV	FY 1996-97	\$563,000	8
HTC	1996	\$325,000	3
WPCC	FY 1995-96	\$597,181	4

¹ Tourism sector only.

How Much Money and Staff Do These Programs Require?

Budgets and staffing for each organization are summarized in Table 6. Clearly the organizations are all of very modest scale and lean staffing.

HTC’s budget has grown rapidly from a very modest \$37,500 in 1990 to its present size. Additional resources have come from equipment vendors, which have provided HTC with state-of-the-art machines, the state labor department (Job Training Partnership Act funds) and the Southeast Manufacturing Technology Center (SMTC). HTC’s staff has engineering and technical expertise as well as long experience in the industry. The director, Dan St. Louis, is an engineer with several years of experience in state-of-the-art manufacturing corporations. HTC has a Total Quality Management expert on staff. The Catawba center’s full-time instructor (recently retired from the industry) has over 50 years of experience. HTC’s budget does not include the budget of its partners, such as CHA and SMTC.

WPCC was initially funded by the legislature for \$2.3 million for its first two years. It has had to downsize after deciding not to seek further general state support. The budget contracted from \$735,000 to \$597,000 between FY1993-94 and FY1995-96. The staff has varied skills and is made up of committed people who are knowledgeable about business. Several worked in the wood products industry for many years. WPCC’s staff director has a background in industrial networks and entrepreneurial public/private ventures, and exhibits politically savvy and strong business management skills. WPCC’s training representative is a long-time manager in the wood products industry and a former high school teacher who “knows every name, every face in the business.” It has suffered some turnover in its marketing staff, which has interrupted its momentum. In general, WPCC’s staff has less engineering expertise, but strong marketing, networking and advocacy skills. WPCC’s budget does not

“In general, WPCC’s staff has less engineering expertise than HTC’s staff, but strong marketing, networking and advocacy skills.”

include the community colleges’ budget for training, nearly 800 workers.

GDV’s staff consists mostly of local Hispanic and Native American women. Since it is located in a remote area, people highly-trained in marketing and business development are scarce. Consequently, GDV has been committed to developing “from within,” including a formal staff development program which links staff with college credits.

AVI’s Deputy Director runs the tourism effort. There are about three additional staff positions in the tourism programs (the number varies over time), with the business development staff helping in individual cases. Outside consultants provide services in public relations and marketing. The tourism budget at AVI, a bit tough to isolate from other expenditures, is roughly \$300,000 annually, not including the business development group.

Endnotes

¹ Beuter (1996) *Legacy and Promise: Oregon’s Forest and Wood Products Industry*.

² Rosenfeld (1995) *Industrial-Strength Strategies: Regional Business Cluster and Public Policy*.

³ CHA and NAHM (1995) *Preserving Hosiery Manufacturing in North Carolina: Strategies for Modernization Through Technologies*.

⁴ Ibid.

⁵ 1990 U.S. Census for Rio Arriba County shows 4 percent of persons in the agriculture, forestry and fisheries sectors combined.

⁶ Boarding is the industry term for steam ironing socks to prepare them for packaging.

3

What Have the Programs Accomplished?

The sectoral programs we examined provide at least some assistance to a significant share of local businesses each year. The key questions, however, are whether their activities actually keep firms in the area by increasing their competitiveness and fostering growth, and whether they increase job opportunities for disadvantaged people. Our conclusion is that the programs, particularly in the cases of HTC and WPCC (which collect substantial outcome data), are having major impacts on competitiveness and job opportunities, and at a low cost per job.

Have the Programs Provided Significant Services?

Technology Modernization

HTC has the most aggressive technology transfer and equipment modernization activities, while WPCC is active in this area as well. Working with the Southeast Manufacturing Technology Center (SMTC), HTC assisted firms on many modernization issues from 1994 to 1996, including:

- ◆ Computer-aided draft design (CADD) and computer-aided manufacturing modeling (CAMP)
- ◆ Integrated purchasing and cost systems
- ◆ Improved inventory control and quick delivery systems
- ◆ Strategic planning
- ◆ Total Quality Management (TQM)
- ◆ Improved personnel management methods

In FY 1994-95, HTC and SMTC provided direct modernization assistance to 19 firms yielding \$3.9 million of benefit. In 1994-95, firms saved money by upgrading to more efficient weaving machines. Firms also avoided OSHA fines because of safety upgrades and benefited from HTC's worker training. In FY 1995-96, SMTC began phasing out its work with HTC, and HTC shifted more towards seminars and courses for firms rather than one-on-one technical assistance. HTC estimates that its technology transfer activities resulted in \$2.7 million of benefits to firms in 1995-96 as shown in Table 7, substantially less than for FY 1994-95. The largest impact came from HTC's program to

**TABLE 7
HTC TECHNOLOGY TRANSFER IMPACTS 1995-96**

Course	Firms or People Trained	\$ Impact	Total
Worker skills upgrade	175	Varies by occupation	\$2,274,885
Occupational Safety (firms)	9	\$9,160	\$82,440
One-on-one Firm Modernization (firms)	6	Varies by firm ¹	\$366,140
Seminars	126	N/A	
Total Quality Management	33	N/A	
Machine Demonstrations	170	N/A	
HIPS Network (firms)	42	N/A	
Total	456		\$2,723,465

¹ The variance was \$13,500 to \$250,000. The median was \$29,440.

“Once a few firms were convinced that modernization was profitable, other firms followed suit. Without intensive work with the first few, others would probably not have become as committed to modernizing.”

teach workers how to operate and repair new machines.

SMTC conducted competitive reviews which gave them intimate knowledge of the hosiery industry and a refined methodology for assessing firms and making recommendations. SMTC used a “hand-holding” approach to help firms modernize technology, production and management systems. This one-on-one approach can be expensive, as can be inferred by the small number of firms served (six) in FY 1995-96. However, it was very effective because, once a few firms were convinced that modernization was profitable, other firms followed suit. Without this intensive work with the first few firms, other businesses — particularly the smaller ones — would probably not have become as committed to modernizing.

Because of jurisdictional issues, SMTC’s functions are being handed over to the North Carolina Manufacturing Extension Program (MEP). It works one-on-one with firms, but has more of an “in-quick, out-quick” technical assistance style. However, in working closely with SMTC, HTC built substantial in-house technical expertise with which to provide more intensive assistance. In addition, HTC hired a full-time manager for dyeing and finishing, a priority in the Preservation Plan, in order to train manufacturers and retailers in new dyeing and finishing technologies.

Although its technology transfer program is still young, WPCC estimates that it has significantly impacted 15 firms with technology transfer and training programs.¹ From among the 150 people who participated in the Pacific Woodworking Conference, WPCC estimated that at least five companies benefited by adopting new techniques and technologies. Training people to become better supervisors has been more successful than initially planned and has already well exceeded the goal of 250 persons. In 1996, 648 workers have received supervisory and technical training. The firms estimated that this training has led to \$395,928 in benefits (\$611 per worker trained). Firms wanted the training to upgrade the skills of their existing workers and allow them to handle new technology and production methods.

Employment Training and Placement

HTC and WPCC have invested heavily in developing worker training and placement programs. Their impacts are examined below along three dimensions:

- ◆ The number who are trained, graduate and get placed in jobs
- ◆ Wages and job quality
- ◆ Targeting to minority and disadvantaged populations

**TABLE 8
WPCC TECHNOLOGY TRANSFER IMPACTS**

Technology transfer and training	People Trained	Companies Involved	Firms Impacted
Pacific Woodworking Conference	150	N/A	5
Secondary Wood Products Training System	648	53	10
Total	796	N/A	15

“HTC has an exemplary record in placing its entry-level trainees: 90 percent of graduates were placed. Only 10 percent of trainees did not complete the course.”

**TABLE 9
TRAINING AND PLACEMENT OF UNEMPLOYED AND HOSIERY PRODUCTION
AND TECHNICIAN WORKERS, 1995-96**

Course	New Workers Trained	Existing Workers Trained	Workers Placed
Production (dyeing and finishing)	8		7
Production (seaming and knitting)	65		59
Technician (repairer)		79	–
Technician (electronics)		23	–
Total	73	102	66

Number of people trained, graduated and placed

HTC and WPCC do extensive training for individual workers. HTC’s longer-running programs are highly efficient, while WPCC’s training is, understandably, experiencing growing pains. Yet WPCC has already trained four times more people than HTC.

HTC’s training and placement record is summarized in Table 9. The bulk of HTC trainees (102) have been incumbent production workers retrained as technicians, or technicians upgrading their skills in order to repair new computerized equipment. Ninety-nine percent of the technicians completed training. HTC has an exemplary record in placing

**TABLE 10
SECONDARY WOOD PRODUCTS
TRAINING SYSTEM OUTCOMES, 1996**

	People Trained	People Placed In Wood Products	Companies Involved
Enhanced Entry-level training	10	6	5
Entry-level Training	69	24	4
Tailored Training (existing workers)	648	N/A	48
Specialty Training	9	N/A	5
Total Students	736		
Total Companies¹			≈60

¹ Some firms were involved in more than one type of training, so an accurate total number was difficult to determine.

“HTC and WPCC appear to be training and placing people for high quality jobs relative to opportunities and conditions in their local economies.”

its entry-level trainees: 90 percent of graduates were placed. Only 10 percent of trainees did not complete the course. Finally, HTC’s training capacity has grown considerably, from about 30 in its first year to nearly 200 in 1995.

WPCC’s training and placement efforts are much younger (classes for entry-level workers were first held in 1996) and some results reflect this. Program results are summarized in Table 10.

WPCC’s most impressive impacts involve its tailored training of existing workers. Serving 48 companies and training 648 workers is a substantial accomplishment. Impacts for the entry-level and specialty training programs are more modest. Placement has been mediocre for entry-level training courses: 60 percent of graduates from the enhanced entry-level course took positions in the wood products industry. Only about 35 percent of graduates of the regular, entry-level training course took such positions. In comparison, HTC placed over 90 percent (66 of 73) of its entry-level trainees into jobs in the industry. WPCC placement rates were affected by course timing. Trainees graduating in December discovered that mills seldom hire at that time of year.

Anecdotal reports have been positive for some entry-level employees placed by WPCC. One employer commented, “The people hired from the entry-level course stay awhile. If I hire off the street, they’re really waiting for a job at Hyundai, so for every six, I keep one. If I hire two or three from the training program and one stays, I waste less money getting people started.”

Wages and Job Quality

HTC and WPCC appear to be training and placing people for high quality jobs relative to opportunities and conditions in their local economies.

HTC trainees placed in area hosiery mills earn \$8.50 to \$10 per hour in production positions

**TABLE 11
NORTH CAROLINA AVERAGE WAGES
BY SECTOR, 1994**

Industry	Average Annual Wage per Worker
Government	\$25,921
Manufacturing	\$27,749
Textile Mill Products ¹	\$27,039
Retail	\$13,926
Services	\$22,613
Transportation	\$33,625

¹ Average annual wage per worker in the Greensboro/Winston-Salem/High Point MSA, where the majority of the counties HTC serves are located.

Source: Employment Security Commission of North Carolina

(seamers, knitters, dyers) and \$10 to \$12 per hour for machine technician jobs. Most firms offer benefits including health care, and all are full-time, permanent positions. Production and technician jobs are sufficient to keep a family of four with one wage earner at around 50 to 70 percent of the area median household income, which is “low” income but above the poverty threshold. The textile industry, on average, pays wages that are competitive with other manufacturing industries and higher than service, government and retail sector jobs.

Job quality in the Oregon secondary wood products industry is somewhat lower than the North Carolina hosiery industry. Starting wages in 1996 ranged between \$6 to \$7 an hour. Average wages in the industry are summarized in Table 12.

A full-time wage of \$7.50 per hour² will yield annual income equal to the 1996 national poverty line for a family of four. A training program administrator said the industry offers more upward mobility than other entry-level jobs available in the area and that benefits are generally good.³ The industry provides advancement opportunities: production

“WPCC and HTC programs serve disadvantaged local residents in numbers well in excess of their proportion in the population and workforce. HTC’s training has primarily served low income people, including recent immigrants.”

**TABLE 12
WAGES IN THE SECONDARY WOOD PRODUCTS INDUSTRY**

Occupation	1994 Wages¹	1996 Wages² (low, average, high)
Cabinet makers	\$8.52	
Wood lathe, routing and planing	\$11.13	
Wood-working machine operators		\$5.00 / 10.46 / 15.00
Sawing machine operators	\$11.05	\$7.00 / 12.07 / 15.97
Millwrights	\$14.80	\$8.00 / 15.00 / 18.70

¹ Confidential survey by Oregon Employment Department.

² Oregon Employment Department, selected occupations, 1996.

workers are commonly promoted to supervisory positions. Permanent entry-level workers also receive full medical benefits and 401(k) retirement plans. Clearly, WPCC training is valuable in helping people move beyond entry-level jobs and wages.

Targeting to Minority and Disadvantaged Populations

With WPCC and HTC, the available evidence demonstrates that the programs serve disadvantaged local residents in numbers well in excess of their proportion in the population and workforce.

Here, we summarize the findings contained in more detail in the individual case studies.

HTC’s training program has primarily served low income people, including recent immigrants. Although HTC does not compile information about participants’ income and employment status prior to training, staff believes that nearly all those enrolled in production training are low income. The state labor department (NCDOL) has sponsored nearly a quarter of HTC’s trainees since 1992. Sixty percent of the NCDOL trainees were JTPA Title II-A eligible and the remainder were Title III eligible or deemed “in need” by NCDOL. The number of

**TABLE 13
DEMOGRAPHICS OF HTC PRODUCTION AND TECHNICAL TRAINEES
RACE OF 3-COUNTY SERVICE AREA**

	White	Black	Asian	Latino¹
Labor force in Burke, Caldwell, Catawba Counties	92%	6%	< 1%	< 1%
HTC Production and Technical Trainees ²	35%	7%	56%	< 1%

¹ The Latino labor force was estimated by assuming that the percentage of the population that was people of “Hispanic origin” in the census was the same percentage of the workforce that was of “Hispanic origin.”

² Although records are not kept for all HTC activities, most people who are trained in production and technical training go through an intake process where race is noted. For all other types of training, such as management seminars, classes for suppliers, and occupational safety, trainees are primarily white.

Source: 1990 U.S. Census, HTC data 1995-96.

“WPCC’s training appears to serve female and minority entry-level workers well.”

**TABLE 14
TRAINING PARTICIPANTS, FEMALE AND MINORITY PARTICIPANTS
IN THE SECONDARY WOOD PRODUCTS TRAINING SYSTEM, 1995**

	Females in the training system	Minorities In the Training system	Females in the Secondary Wood Products Sector¹	Minorities in the Secondary Wood Products Sector²
Sector Overall ³			13%	7%
Enhanced entry-level training (new workers)	39%	0%		
Entry-level training (new workers)	23%	18%		
Tailored training (existing workers)	15%	3%		

¹ This compares to Oregon female labor force representation overall of 45 percent, and minority representation of eight percent. Women are grossly underrepresented in the wood working occupations profiled above, accounting for only 15 percent of the workers when they account for 45 percent of the workforce overall.

² Hispanic 4 percent, Native American 2 percent, Asian 1 percent. Similar to Oregon’s overall population, about 93 percent of its workers are white and seven percent of its workers are Black, Native American, Asian or Hispanic.

³ As defined by its three largest non-managerial and clerical occupations, accounting for about half of all secondary wood products workers.

Source: 1990 U.S. Census, Office of Employment Opportunity

NCDOL trainees has fluctuated: 52 NCDOL-sponsored individuals completed training in 1992; 81 in 1993; 54 in 1994; and 40 in 1995. With the opening of HTC’s Randolph site, NCDOL officials expect the number of NCDOL trainees to increase.

Compared to the overall workforce in HTC’s Catawba target area, HTC has served a very large number of Asians (see Table 13), nearly all of whom are recent Hmong immigrants.⁴

WPCC’s training appears to serve female and minority entry-level workers well. As shown in Table 14, females were two to three times more likely to be enrolled in entry-level training than their current representation in the industry. Minorities were also heavily represented in entry-level training. However, tailored training programs for existing workers appear to be effective in enrolling females but not minorities.

Job Creation

GDV indicates its businesses provide direct employment to approximately 52 people, most of whom probably work part-time. A thorough, accurate assessment of GDV’s business enterprises is not possible because the data are incomplete. Assuming (generously) that 75 percent of sales income goes to salaries and wages, GDV’s ventures created \$350,000 of wage income, or approximately \$7,000 per employee or cooperative member. A more realistic assumption of 50 percent of venture income allocated to salaries and wages would yield approximately \$5,000 of income per employee. In most private sector businesses, wages and salary command perhaps 15-35 percent of total sales revenue. However, since grant money subsidizes GDV ventures (except Tierra Wools), it is possible that a higher percentage of sales may be allocated to salary and wages.

“Many of the often young workers in the tourism businesses did not previously know their culture’s rituals and skills. This education and rekindling of interest is considered a central result of AVI’s work.”

AVI reports the following job creation impacts:

- ◆ Alaska Village Tours Project (1987-present): 14 persons directly employed; 50+ jobs created.
- ◆ Cottage Industry Light Manufacturing Project (1994-present): eight persons employed.
- ◆ Alaska Native Tourism Council (1993-present): 201 project jobs during the 1993 visitor season, including 49 tour guides, 126 cultural performers, 6 maintenance workers, and 20 tour coordinators/managers. Low income people filled 178 (88 percent) of those jobs. Of these 201 jobs, 27.5 new jobs were created as a result of the sector program’s work. (The rest of the jobs were created before ANTC’s formation, by businesses that ANTC now helps market.) These new jobs include two tour guides, 22 cultural performers, two maintenance workers and 1.5 tour coordinators/managers.

These figures suggest that AVI has created more jobs within the sector projects, but these jobs are largely limited to the tourist season. Without sales figures or other data, it is impossible to assess how much income those jobs generated.

Almost all of these jobs involve extensive training of native and rural people, who often have little experience with cash economies and cash-paid jobs. They need orientation to such basic things as showing up for work regularly at the same time. And they require training on serving customers (tourists) — at such basic levels as consistently meeting the buses and boats, but also on talking to visitors while they are waiting in line so that they feel attended to.

In addition, many of the often young workers did not previously know their own culture’s rituals and skills (e.g. dances, costumes, carving totem poles). To participate in entertaining visitors, they had to learn them from the few elders who still knew them. This education and rekindling of interest is considered a central result of the work of AVI and local resident entrepreneurs.

Many people who wanted to create businesses needed either a reality check (feasibility assessment) or, if there was a real chance for a tour or business to succeed, much training in marketing, accounting, etc.

Wages did not add up to a lot of money because of the short seasons, often part-time work and the very modest numbers of visitors at several sites. More meaningful were three results:

- ◆ In some places, the wage income was one of the few means of access to the cash economy.
- ◆ The tourism business gave an impetus to preserving the culture (such as crafts and dances performed for tourists that might otherwise have been lost entirely).
- ◆ Tourism generated enough income, combined with grants, to pay for cultural facilities and activities that were important for cultural preservation. An example is the Afognak anthropological dig, in which tourists’ payments to participate and their work on site made the dig itself much more economically feasible.

A few of the ANTC businesses were quite substantial cash producers, such as Saxman Village and, in particular, the sale of carved totem poles, which are produced over the year instead of only during the tourist season.

Material Supply

WPCC and GDV carry out activities to enhance raw material supply. WPCC estimates that 15 firms have been significantly impacted in terms of wood supply in FY 1996. This consists of:

- ◆ 30 participants at a meeting on use of juniper wood; 5 firms significantly impacted
- ◆ 100 items listed in the Wood Exchange; 10 firms significantly impacted.

GDV’s supply project supports the growth of Churro sheep flocks. Once nearly extinct, they

“A furniture firm met a customer at WPCC’s annual Buyers/Sellers Conference, a meeting that has helped the manufacturer triple sales to \$3 million annually.”

have experienced a quick recovery, partly due to GDV’s efforts.

Marketing

WPCC estimates that its marketing program has significantly impacted 55 firms. It notes that more firms participate in marketing than in any other program. Those impacts are summarized in Table 15.

WPCC has some anecdotal evidence supporting its estimates of its impact on market development. A furniture firm met a customer at WPCC’s annual Buyers/Sellers Conference, a meeting that has helped the manufacturer triple sales to \$3 million annually. Another firm connected with a major retail chain at the conference and is now test-marketing its product in 14 stores. If the product is successful, the retailer will purchase for 450 locations. WPCC organized participation at the Japan Home Show in Tokyo, which generated \$800,000 worth of orders for five firms.

Since GDV conducts marketing through its subsidiaries and ventures, marketing impact is best measured by the sales data from its ventures. However, we were able to obtain only very partial data.

Table 16 reports sales and employment data for GDV ventures.

A “best guess” estimate for 1996 sales might be close to \$500,000: \$324,000 from Tierra Wools, \$20,000 from Pastores Lambs, \$100,000 from Pastores Feed and General Store, and \$26,000 from Otra Vuelta.

Data are also lacking from AVI in terms of marketing impact. AVI’s Alaska Native Tourism Council has been distributing 100,000 copies of its “Native Journeys” brochure to potential tourists, press kits to over 750 domestic newspapers, and conducting other industry and consumer awareness campaigns. How much this marketing effort can be translated into tourist sales dollars is not clear at this time.

Capital Access and Finance

AVI, GDV and WPCC conduct activities devoted to gaining access to capital and financing.

AVI and GDV operate their own revolving loan funds. Since 1968, AVI had financed more than 434 community-owned businesses in 91 of Alaska’s 162 rural communities. These loans have a total value of almost \$34 million; more than 300

**TABLE 15
SIGNIFICANT IMPACTS OF WPCC MARKETING ACTIVITIES ON
SECONDARY WOOD PRODUCT MANUFACTURERS, FY 1996**

Marketing Activity	Number of Participants	Number of Firms Impacted
Buyers/Sellers Conf (participants)	72	10
Capabilities Database (leads)	235	30
Made in Oregon (participants)	42	5
Trade Events (leads)	120	5
Pacific Rim Markets conference (participants)	66	5
Total	535	55

“By preparing workers for computerized technologies, short production runs, just in-time delivery and a wide variety of specialty products, HTC helped the hosiery industry retain much of its market.”

TABLE 16
GDV VENTURE PERFORMANCE 1990-1996

Enterprise	Year	Gross Sales	Employees	Output
Tierra Wools	1990	\$200,000		
Tierra Wools	1995	\$324,000	28	
Pastores Lambs ¹	1989	\$40,000		200 lambs
Pastores Lambs	1991-95	\$80,000		400 lambs
Pastores Lambs	1996	\$20,000		100 lambs
Rio Arriba Wool Washing	1990		1	1000 lbs.
Rio Arriba Wool Washing	1991		2	2000 lbs.
Rio Arriba Wool Washing	1995			Closed for repairs
Pastores Feed and General Store	1990-96	\$100,000	1	
Otra Vuelta	1996	\$26,000	3	

¹ Gross sales for Pastores Lambs estimated assuming 50 pounds of meat per lamb sold at \$4.00 pound.

of these businesses are currently operating. AVI has made almost double that number of loans to rural businesses of all types. Additionally, AVI has financed almost \$22 million in a portfolio consisting of 576 loans. But only a small number of these loans involve tourism businesses. Most of the financing for tourism businesses assisted by AVI has involved a few major projects for which AVI has helped its partners pursue other capital. GDV also has a revolving loan fund, but its capitalization, uses of funds and portfolio performance are not clear.

WPCC reports 15 firms significantly impacted by its finance programs in 1996. These include:

- ◆ Credit enhancement fund: 58 loans guaranteed; 10 firms significantly impacted
- ◆ Capital Hotline: 10 calls to the Hotline: 5 firms significantly impacted.

Have the Programs Changed Their Industries Systemically?

One measure of systemic impact is to gauge how much of its sector a program has influenced. WPCC and HTC are both relatively small institutions trying to influence large industries.

Providing the means to modernize and increase the hosiery industry's productivity — thus helping it stay competitive in the face of global production and markets — is one primary systemic impact of HTC. By preparing workers for computerized technologies, short production runs, just in-time delivery and a wide variety of specialty products, HTC helped the hosiery companies successfully switch to the production techniques and equipment that — coupled with a well-trained and flexible workforce — enabled the industry to retain much of its market.

“AVI and GDV operate in such marginal economies that impacts which otherwise might be considered small can be very meaningful.”

HTC actively serves 80 hosiery plants and 60 suppliers, where “actively” is defined as firms which have either hired workers through HTC, attended workshops or participated on HTC boards. In the 11-county region served by the Randolph and Catawba sites, there are 288 hosiery firms. The Catawba site serves 57 percent of the hosiery firms in its 3-county region (68 of 120). The Randolph site covers an additional eight counties with more than 100 additional firms. HTC will penetrate an even larger percentage of firms in its area over time.

WPCC estimates that it had “significant impact” on 75 firms employing an estimated 2700 persons in 1996 (“significant impact” means that a firm’s participation in WPCC activities resulted directly in its growth or strengthened viability). WPCC has 104 members, or 13 percent of the secondary wood products firms in Oregon. Its member firms employ 7500 workers, or 32 percent of the secondary wood product employees in the state. Thus, in a single year, WPCC estimates that it impacted 36 percent of its members’ employees and 12 percent of all secondary wood producers’ workers.⁵

If even a small percentage of HTC and WPCC’s impact involved retaining a firm that would otherwise be lost, HTC and WPCC would protect a significant share of the industries each year.

AVI and GDV are relatively small institutions that exert considerable influence over small sectors, so aggregate impact must be interpreted somewhat differently. AVI’s tourism sector is comprised of enterprises that employ about 170 people. GDV’s ventures employ some 50 people. If one includes artisans who market through GDV enterprises, the total number might be 250 to 300 persons. While these numbers are small, AVI’s and GDV’s programs make significant differences to those people and jobs. Both programs operate in such marginal economies that impacts which otherwise might be considered small can be very meaningful. For example, AVI notes that generating an additional 1000

visitors to the villages represented by its Alaska Native Tourism Council could make the difference between community-based tourism enterprises surviving and failing. Additional part-time income of \$5000 - \$7000 annually for one of GDV’s member households could make a substantial difference in its quality of life.

Have the Programs Changed Public Perception of the Industries?

The Oregon secondary wood products industry and the North Carolina hosiery industry both suffer from negative public perceptions, in terms of willingness of new workers to enter employment.

The secondary wood products industry in Oregon is perceived as dirty, low paying and — along with timber cutting and sawmills — in continuing decline. The WPCC training network recruits workers and gives people a chance to learn about the industry. This function probably helps firms as much as the actual teaching of hard skills. In addition, in working with WPCC, some Oregon community college and JTPA staff have changed their attitudes towards the secondary wood products industry. According to a community college administrator, some staff were “very skeptical of wood products because they saw it as a ‘use and abuse’ type of work environment. But after people started getting good jobs they said ‘my image of the industry is totally changed.’”

Similarly, hosiery is trying to overcome an image of being a “dying” industry with dirty, hot, unpleasant work conditions. One industry lobbyist commented, “We have a Norma Rae image and we need to recruit good people.” HTC has had some impact on that perception through its presentations in schools. High school teachers invited into the mills by the HTC staff were reportedly surprised by the level of modernization in factories and by wage levels, which, in some cases, were higher than their own.

“HTC in particular has broken the mold of traditional economic development programs by partnering with organizations that serve low income people, welfare recipients and recent immigrants.”

Have the Programs Changed Their Industries’ Understanding of How To Be More Competitive?

HTC and WPCC have communicated important messages and raised industry consciousness about various competitiveness issues. HTC has stressed the need for modernizing equipment, linking technology upgrades with employee training, and understanding the new market environment of customized products, short production runs and rapid order fulfillment. HTC and its partners have had some impact on getting firms to appreciate the importance of training. However, according to a state labor department official, specialized training is still overlooked by some firms.

“Employers tell us ‘if they can breathe get ‘em in here, stick ‘em on the job and let ‘em learn while they can.’ We’ve tried to help them understand that this doesn’t work; that’s why you have such high turnover. You’ve got to get some of this specialized training where they’ll at least get over their fear of walking in there, never having done the job before.”

Since it works on more issues, WPCC has been able to influence thinking on several additional issues. Through participation in international trade shows, more firms are seriously considering the export market. Similarly with supply issues, WPCC has raised consciousness of overseas wood sources and new technologies for utilizing alternative species and lower grades of wood. With regards to workforce issues, training is emerging as an alternative to using temporary agencies.

Have the Programs Changed Their Industries’ Use of Low Income Workers?

HTC in particular has broken the mold of traditional economic development programs by

partnering with organizations that serve low income people, welfare recipients and recent immigrants. HTC may be one of the only economic development programs in the country assisted by a National Institute of Science and Technology project that engages community-based service agencies in any meaningful ways.

There is some evidence that HTC has changed firms’ attitudes about hiring recent Hmong immigrants. HTC encouraged mills to hire immigrants and helped bridge language barriers by employing interpreters and locating ESL classes at the firms. After one medium-sized plant hired many HTC-trained Hmong immigrants and boosted its productivity, other mills followed suit. “They found out they’re real faithful employees and then everybody else fell in line,” according to HTC staff. In the Piedmont area, NCDOL staff is encouraging HTC to recruit a rapidly growing Latino population.

Have the Programs Strengthened Networks?

One principle of networks is that firms have more power to effect change by working together. At least three of our four sites illustrate the impact of networks. WPCC provides a mechanism (a network) for collectively taking on issues affecting the industry’s future health, issues that could not be tackled individually by the typically small, disparate and independent secondary wood products firms. These included job training, recruiting young people back into the workforce, marketing internationally and drawing on European best practices in technology and training.

WPCC has created new relationships between manufacturers and non-manufacturing partners (state government and educational and financial institutions) and changed attitudes about cooperation of very independent businesspeople. WPCC’s communication program has strengthened horizontal relationships and collaboration among the own-

“WPCC believes it has established a new culture of inter-firm collaboration, cooperation and problem solving, helping firms overcome the tendency to be secretive.”

ers and managers of the secondary wood products industry. WPCC has strengthened vertical relationships among suppliers of raw materials, buyers and secondary wood product producers by helping firms access alternative wood supplies through its Juniper Forum. At WPCC's annual Buyers/Sellers conferences, buyers (home builders, building contractors, furniture retailers) inform WPCC manufacturing companies about up-and-coming markets and what they should be producing to meet demand.

WPCC has strengthened diagonal patterns among governmental, educational and financial institutions and secondary wood product producers. WPCC believes it has established a new culture of inter-firm collaboration, cooperation and problem solving. WPCC has helped some firms overcome the tendency to be secretive, encouraging them to work together to share expenses, develop new ways to handle changes and crises in the industry, and continually engage in strategic and system-wide thinking.

To an even deeper extent, HTC and its partners have strengthened vertical, horizontal and diagonal relationships in the hosiery industry. HTC has become a knowledgeable and effective coordinator of technological needs and improvement processes in the hosiery sector as a whole. Relationships with industry are developed and strengthened as companies see HTC as a problem solver. Strong relationships with industry strengthen the center's ability to advocate for technological innovation in the university and to get state funding for the community college.

AVI's cooperative tourism marketing network helps make native tourist sites competitive. Without this help, changes in the industry probably would have made these sites too isolated to survive. This new structure, by aggregating funds and expertise, responds to market shifts in a way that small individual enterprises could not.

How Have the Programs Changed Community College Systems?

Community colleges have potential as trainers of a technically competent workforce, but in many places they have had a hard time meeting businesses' needs. HTC and WPCC have had some impact on their community college systems. In Oregon, WPCC believes secondary wood products businesses have more confidence in the community college system's ability to assist them with their hiring and training needs as a result of experience with recently developed courses. More generally, the experience of jointly developing an industry training system has built the capability of educational institutions (community colleges, high schools) to devise industry-relevant, system-wide curriculum.

HTC has changed community college training norms by championing business needs for flexible, hands-on training. HTC's responsive approach has confounded slow bureaucratic processes with its demands for decentralized management and funding amenable to dynamic, quickly-responsive training. According to businesses, HTC is a model by responding quickly, being flexible about training location and scheduling, and understanding the need for small classes.

How Do the Benefits Compare to the Costs?

With an array of diverse outcomes, it would be desirable to have an overall measure of these programs' effectiveness. For two sites, HTC and WPCC, we had sufficient quantitative information to calculate cost-benefit ratios. For HTC, we found benefits exceeded costs by approximately an 8:1 ratio in 1995-96: \$325,000 of HTC and NCDOL expenditures resulted in benefits to firms and workers totaling \$2,641,025. As with all cost-benefit analyses, ratios are highly sensitive to many assumptions, particu-

“Quantifying WPCC’s benefits to its firms is more difficult because a primary service it provides is information. Sometimes information has a direct outcome, but often it acts like seeds, taking time to come to fruition.”

larly those about quantifying benefits. This ratio reflects the following assumptions and limitations:

- ◆ Costs include those for HTC and NCDOL only, not the costs for various other partners such as CHA and SMTC. HTC costs are actual and NCDOL’s costs are estimated.
- ◆ Costs and benefits of SMTC’s technology transfer services are not included because there’s not enough data to estimate costs.
- ◆ Benefits include: benefits to businesses in recruitment and training; increased wages of formerly unemployed workers (calculated as the difference between an \$8.50 entry-level wage in hosiery minus the minimum wage at the time, \$4.25); and the increased wages (an additional \$2 an hour) of incumbent production workers who become technicians.
- ◆ Costs of nonprofit organizations that recruited workers into the training program and taught ESL and survival classes were not included.

The very high benefit-cost ratio indicates that HTC’s effort is effective, even given the limits of measuring costs and benefits. We made a separate calculation of training costs and found HTC delivers training for approximately \$916 per trainee. This is quite low, which is partially attributable to HTC’s short, efficient classes and partly to the fact that pre-employment and supportive services for hard-to-serve trainees are not incorporated in costs.

Quantifying WPCC benefits to its firms is more difficult because a primary service it provides is information. For example, a company may absorb market information or a trade lead from WPCC events or publications. This may not translate into immediate sales, but it may ultimately get integrated into the firm’s marketing strategy. Sometimes information has a direct outcome, but other times it acts like seeds, taking time to come to fruition.

Based on conservative assumptions, we calculate that benefits exceeded costs for WPCC and its pro-

grams by approximately 2:1. WPCC generated \$1,083,600 of benefits to firms and workers at a cost of \$503,175 (excluding training expenditures). Costs and benefits for the training system were calculated separately because its costs are carried by several institutions. Training costs were \$1.6 million and yielded estimated benefits of \$1.06 million. Training costs have exceeded benefits thus far, partially because the system has not operated long enough to amortize up-front development costs.

Endnotes

¹ “Significantly impacted” means that a firm experienced a positive change in its profits directly related to a WPCC activity. In relation to supply, a firm found a new or less expensive source for wood. In relation to marketing, a firm increased its revenues or made contacts that led to a new contract.

² This was calculated by dividing the median family poverty wage for a family of four by 52 weeks a year and a 40-hour work week.

³ She said that it is easy to place people in the growing number of electronics and clerical jobs in the area, but that the starting wages are \$1-2 lower than wood products and there is less room for advancement. The trade-off between the two industries is that wood products work is often much more physically demanding than electronics.

⁴ From Laos, Hmong immigrate to the U.S. primarily because of economic and political hardship in their home country, according to Lutheran Family Service staff. Many Hmong are relocating from other points of entry such as California (where they found the cost of living too high) and Minnesota (where they found the weather unbearable). The Hmong hosiery workers we interviewed said they relocated to North Carolina because the weather and the mountainous areas are more similar to their home in Laos and because multiple members of the family can work in the factories with limited English skills and earn enough to buy enough land for the extended family to live comfortably and for elderly parents to tend a garden.

⁵ Assumes no firm was impacted significantly by more than one service.

4

What Factors Make These Programs Succeed?

Various factors contribute to the impact of rural sector development programs. Some are *internal*: how the program was designed, the quality of implementation, staffing and leadership, availability of resources. Others are *external*: overall economic conditions, public policy environments, dynamics of the chosen sector, the intrinsic competitiveness of the targeted firms, and the cluster's culture and leadership. Some factors which help determine program outcome are explored in this chapter.

1. Having a Clear Focus

Focus is a fundamental tenet of a sectoral strategy. Focusing on one sector enables an organization to develop specialized expertise and cultivate relationships that allow it to become an influential player within the industry.

While all four organizations exhibit specialization, they differ in the “tightness” of their focus. HTC probably demonstrates the tightest focus, both in terms of the firms it works with and the services it provides. HTC has carved out a manageable sub-sector of the textiles industry (hosiery), which it understands very well. The firms it works with produce two products (socks and fine hosiery) for a largely common market (clothing retailers and wholesalers). This homogeneity facilitates a collective approach to technology transfer and training. For instance, curriculum design is essentially the same for several key jobs (knitters, seamers, fixers) across all firms in the industry. Machine demonstrations are applicable to a large proportion of firms because they all use the same type of equipment.

HTC does not have to worry about networking firms because the Carolina Hosiery Association aptly performs this task. Nor does HTC have to focus much energy on recruiting students because the NCDOL and Lutheran Family Services refer people to the program. Finally, HTC concentrates on only two major issues facing the industry (tech-

nology and process modernization; labor force training) and on a particular set of firms within the industry (defined by size). This tight focus enables HTC to intervene with skilled staff on an effective scale, allowing it to make real changes in the industry.

In many respects, WPCC has much less focus. WPCC's member firms generally share a common raw material (wood) and, to some extent, production technology (woodworking equipment). With this resource and technology, they produce a huge range of products (e.g., furniture, cabinets, moldings, flooring, recreational equipment, toys and crafts) for many markets (contractors, building supply outlets, sporting goods outlets, furniture stores, office supply distributors, gift and toy stores). Each of these product/market combinations is likely to be an industry in itself, with its own set of players, market dynamics and competitiveness factors.

WPCC's activities are stimulating even more diversity by increasing the range of markets (by promoting overseas exports) and the sources of supply (by promoting alternative types of woods, including woods from foreign countries). WPCC's activities – market development, supply diversification and capital access on top of technology modernization and workforce development – further lessen focus. This is not to argue that WPCC cannot be effective, just that the complexity of its sector and the scope of its activities present more challenges than those faced by HTC.

At first glance, GDV's vertical integration approach suggests a fairly tight sectoral focus, but GDV's sector is probably more diverse than WPCC's. Although most of GDV's business development activities emanate from agriculture and are vertically connected, the enterprises themselves operate in distinct industries. Specifically, GDV's enterprises span:

- ◆ *Arts and crafts* production (Tierra Wools)
- ◆ *Livestock* production (Sheep Growers Cooperative)

“The organization must be well-connected and credible to firms in its industry, responsive to industry needs and accepted as part of the industry’s infrastructure.”

- ◆ Agricultural *producer services* (Rio Arriba Wool Washing)
- ◆ Craft and gift *wholesale* (Pastores Artisans)
- ◆ Food processing and *wholesale* (Pastores Lamb)
- ◆ General retail with *tourism* emphasis (Pastores Feed and General Store)
- ◆ Rubber products *manufacturing* (Otra Vuelta)

This is a very diverse array of businesses: wholesale, retail, manufacturing, producer services, agricultural production, arts and crafts. By comparison, WPCC’s member firms are all in manufacturing and they share production technology and raw material.

GDV’s program might be more accurately described as a vertically-oriented cluster strategy rather than a sectoral strategy. The word “sector” implies a single industry, and GDV is clearly operating in many industries. Although GDV’s ventures are related through a vertical supply chain, the most useful commonalities among GDV’s enterprises are: 1) they draw on the same community of people for managers, artisans and workers and 2) they utilize simple technologies. On the other hand, the markets are quite diverse, ranging from highly localized to national, and several are highly competitive, with difficult entry barriers. Moreover, GDV is trying to penetrate these national markets from a remote location, producing specialty products, most of which appeal to well-educated, sophisticated consumers who live in metropolitan areas. It is difficult to keep abreast of market trends in this situation. To summarize, GDV has a form of focus on the production side — its relationships with members and workers simplifies the networking. But this focus is countered by the diversity of its industries and its distance from many of its markets.

AVI’s “slice” of the tourism industry consists of one major line of business — tours — supplemented by two lesser lines of business: hospitality and craft and gift production. These three segments of the tourism industry are tied together by a common customer (market) — the tourist. They differ

in production “technology,” but two segments (tours and hospitality) share the same key competitiveness factor: creating a unique, valued visitor experience and providing good customer service. Thus, AVI’s sectoral focus is relatively tight. AVI’s fundamental problem is that the market dynamics in the tourism industry — vertical integration by airline and cruise ships, regional marketing organizations, lessened viability of independent tours — run powerfully against AVI’s chosen direction. AVI’s challenge is not lack of focus, but changes in the tourism industry itself.

2. Being Connected to the Industry

Another tenet of sectoral strategies is that the organization must be well-connected and credible to firms in its industry, responsive to industry needs and accepted as part of the industry’s infrastructure. Both HTC and WPCC are industry-driven, industry-led and very well industry-connected. HTC was initiated by the hosiery industry. WPCC was initiated by the state, but its leadership has taken all the necessary steps to ensure “ownership” by Oregon’s secondary wood products industry. In terms of governance, businesses make up 10 of the 12 HTC board seats at Randolph and Catawba Valley Community Colleges. WPCC’s board consists of eight business owners and managers. Both HTC and WPCC provide services that have been requested by their industries, and they engage those businesses in designing and delivering those services. As a result, HTC and WPCC do not just deliver services to firms in a sector, they have truly become part of their industries’ infrastructure.

The issue of industry connection takes on a different meaning for AVI and GDV, which work with far fewer and smaller businesses. The Oregon secondary wood products industry (575 firms, 23,000 employees) and the North Carolina hosiery industry (over 300 mills, 38,400 employees) are both large. The average firm has 40 employees (wood products) and 110 employees (hosiery). On the other

“HTC and WPCC can provide discrete, technically-oriented services, while AVI and GDV must provide a full spectrum of business development services to create new ventures or incubate small, fragile, existing ones.”

hand, GDV's business constituency consists of small-scale sheep growers and artisan microenterprises. AVI's constituency consists of small-scale village tour services, hospitality firms and craft producers, with total employment of about 140. GDV and AVI are not industry-led or industry-driven. Instead, GDV and AVI must provide the leadership and drive the development strategy themselves.

The practical implication of this difference is two-fold. First, HTC and WPCC can concentrate on strengthening specific aspects of a cluster's competitiveness, while AVI and GDV are virtually creating new industries from scratch. HTC and WPCC can provide discrete, technically-oriented services, while AVI and GDV must provide a full spectrum of business development services to create new ventures or incubate small, fragile, existing ones. The latter is intrinsically more difficult, especially given the shortage of entrepreneurial talent in remote, sparsely populated areas, as well as the limited mainstream business experience of native populations. GDV's difficulties in finding strong business talent to run its enterprises, and AVI's problems in catalyzing start-up of bed-and-breakfasts and cottage manufacturing, attest to the shortage of entrepreneurial experience.

This difference in business constituencies also defines a different role for GDV and AVI. The role of HTC and WPCC is to provide supportive services for firms in their clusters; they are part of the *support infrastructure* for their respective industries. Conversely, GDV and AVI must go beyond this support role and become direct, active *players* in the *marketplace*. More specifically, GDV and AVI have to sell products to customers. AVI and GDV are *sales and product development intermediaries* that must generate sales and organize production.

In their role as business developers, AVI and GDV are struggling with the challenge of promoting locally-controlled, appropriate development

that preserves culture, fosters leadership and still provides viable work for local people. This is a far greater responsibility and broader focus than HTC and WPCC have.

3. Being Able to Marshal Expertise

Sector strategies succeed or fail on their ability to mobilize and constructively focus expertise. This expertise can be housed within the organization itself; be external to the organization but accessed through partnerships and consulting relationships; or be contained within the sector itself.

While HTC has built substantial expertise in-house, it probably best exemplifies effective mobilization of external expertise. North Carolina State University's College of Textiles works with HTC to develop new technologies. Equipment and yarn suppliers, knowing HTC's efforts to modernize hosiery firms, also keep HTC up-to-date on new technology. The Southeast Manufacturing Technology Center helped HTC develop the ability to assess firms and recommend technology and process improvements. Finally, HTC has utilized the expertise of the North Carolina Department of Labor and Lutheran Family Services to prepare a disadvantaged labor pool for employment. HTC has been entrepreneurial in pursuit of these partners, partly because of budget constraints but also because HTC values their expertise. Consequently, external expertise has greatly improved program outcomes.

WPCC has been similarly aggressive in pursuing external expertise and draws heavily on the knowledge and expertise of its business members. Two tenets of cluster-based strategies (as distinct from sector strategies) are: 1) firms learn more from other businesses (suppliers, buyers, equipment vendors and even competitors) than they do from business assistance providers, and 2) clusters as a whole advance most rapidly (gain competitive strength) when knowledge is shared. Thus, WPCC

“Overall, there is a lack of expertise and institutions dedicated to assisting business development by community-based organizations such as GDV.”

creates forums to facilitate firm-to-firm exchange of information and expertise, whereas HTC stimulates information flow between individual firms and HTC itself (or its partners).

Although AVI has hired outside consultants for special projects (for example, it hired a management consulting team to lead a Marine Research Center) and it consults with experienced state rural tourism officials, the organization primarily draws on internal expertise for most activities. AVI's finance person handles larger hotel projects and its deputy director is very knowledgeable about the sector overall.

GDV has often relied on external consultants to supply necessary expertise. The success of Tierra Wools is attributed to a trainer and technical assistance provider who knew both the production and marketing sides of the hand-weaving business and worked intensively with the founding members for several years. In addition to ensuring that their product would be marketable from the beginning, she helped them develop a realistic pricing structure. GDV's experience with consultants for its other ventures has been much more mixed. In general, GDV had trouble identifying what expertise they needed and then getting it to them quickly. At times, GDV has assigned complex business development tasks to inexperienced staff members. In one instance, staff members were to re-engineer historical products (wool-filled comforters) using modern resources and equipment. This involved developing production systems and techniques for these new products, creating markets in distant urban centers and creating competitive retail and wholesale pricing, distribution and sales strategies.

Overall, there is a lack of expertise and institutions dedicated to assisting business development by community-based organizations such as GDV. There is a lack of sophistication in getting appropriate pricing, gaining access to start-up and working capital, and obtaining equity financing.

4. The Importance of the Economic Context

Sector programs are creatures of their economic context. Economic conditions often led to the sectoral strategy in the first place. The North Carolina hosiery industry was clearly motivated by economic crisis. With textile firms failing or relocating production overseas, the threat of global competition was immediate and real. The hosiery industry saw that it had to act to improve competitiveness or face dramatic consequences. Similarly, as the primary wood products industry downsized in Oregon, public concern for the jobs lost led to the impetus for creating WPCC.

While economic context played significant roles in helping launch WPCC and HTC, context has had a more profound influence on AVI and GDV. AVI and GDV embody the daunting challenges of rural economic development to a far greater extent than HTC. Policymakers, funders and even practitioners sometimes fail to make important distinctions between rural areas. Table 16 presents data comparing the primary target areas of HTC (Catawba, Burke and Caldwell counties) and GDV (Rio Arriba County).

Even a cursory glance at Table 16 shows that GDV works in a much more sparsely settled and isolated area than HTC. Rio Arriba county has four times the land area of HTC's three target counties, but only 13 percent of the population. Consequently, Rio Arriba has a population density of 6.3 persons per square mile compared to 203.4 persons per square mile for HTC's target counties. While Hickory has easy access to Charlotte, Los Ojos is more than a two-hour drive from Albuquerque, much of it over mountainous two-lane road. While much of the HTC target area comes under the influence of the Charlotte regional economy, Rio Arriba is clearly isolated from major economic centers. Rio Arriba county has a much higher concentration of racial and ethnic minorities. In the 1990

“Of the barriers to economic growth experienced by rural areas, access to expertise is extremely important and often overlooked. Expertise — business and professional services — clusters around major population centers.”

TABLE 16
COMPARISONS BETWEEN HTC AND GDV TARGET AREAS

	HTC Target Area	GDV Target Area
Population	280,344	36,959
Land Area (sq. miles)	1,378	5,858
Population Density (persons/sq. mi.)	203.4	6.3
Per Capita Income	\$18,374	\$10,936
% Minority Population	8.4%	82%
Bank Deposits per capita	\$8,982	\$5,114
Nearest Major Metropolitan Area	Charlotte, NC	Albuquerque, NM
Distance to Major Metropolitan Area	40 miles	150 miles

Census, about 30,000 of 36,000 Rio Arriba residents identified themselves as either Hispanic or American Indian. Rio Arriba county is substantially poorer than HTC’s target counties, as indicated by per capita income and per capita bank deposits. Although GDV and HTC both serve rural areas, it is clear that these two areas are not comparable.

These differences in total population and population density impact the overall business support infrastructure. Business development is a product of entrepreneurial ability, expertise, market opportunity and capital. Of the barriers to economic growth experienced by rural areas, access to expertise is extremely important and often overlooked. Expertise — business and professional services — clusters around major population centers. Table 17 compares business support infrastructure for the HTC and GDV target areas. Clearly, firms have access to much more expertise in the HTC target area than in Rio Arriba county.

Isolated rural areas also suffer from poor access to capital markets. Only seven bank branches serve Rio Arriba, with total deposits of approximately \$190 million. These branches are extremely small in today’s banking environment. Smaller banks

cannot make loans as large as big banks and often have less sophisticated and aggressive commercial lending staff. In many small rural areas, business lending primarily circulates through “good old boy” networks. Rural areas are also distant from non-bank sources of capital: “angel investors,” venture capital funds, government-capitalized revolving loan funds, non-depository commercial lenders, investment bankers, bond houses.

Transformations in information and shipping are rapidly changing the economic context of rural businesses by decreasing the disadvantages of distance. Some dub this “distance is dead.” Quicker shipping schemes such as overnight mail have helped many rural businesses. A small producer in a small town in Oregon can ship a customized chair to a family in Los Angeles about as fast and cheap as a producer in Los Angeles. Shipping services are now better set up for sending smaller loads very quickly to market, and they compete on price.

New information technologies also reduce the isolation of rural firms. The Internet increases the flow of information in and out of rural areas. Small producers can cheaply market their products on

“The notion that ‘distance is dead’ has implications for rural areas. Quicker shipping schemes such as overnight mail have decreased the disadvantage of distance.”

TABLE 17
BUSINESS SUPPORT INFRASTRUCTURE GDV AND HTC TARGET AREAS

	HTC Target Area	GDV Target Area
Business Services:		
Total No. of Establishments	1,647	199
No. of Estabs. w/Payroll	223	9
Total Receipts	\$92,116,000	NA
Legal Services:		
Total No. of Establishments	116	12
No. of Estabs. w/Payroll	85	5
Total Receipts	\$17,732,000	\$757,000
Engineering, Accounting, Research, Management & Related Services:		
Total No. of Establishments	722	105
No. of Estabs. w/Payroll	154	15
Total Receipts	\$73,799,000	\$3,001,000
Bank Branches	91	7

the Web, as well as find new suppliers and consumers. As a marketing tool, the Internet is still in its formative stage, but holds great promise for rural businesses.

E-mail and on-line networks make communication between buyers and sellers less costly and enable more collaboration between firms. HTC's Hosiery Information Production Services (HIPS) enables firms to post messages for product sourcing, upcoming events and OSHA requirements. In AVI's tourism efforts, modern communication helps on one front, in marketing, but the customer must ultimately travel to the tourist site and distances remain large, infrastructure very limited, and costs high for many destinations.

“Just-in-time” production systems — with smaller, more frequent loads of goods being transported to markets — have leveled the cost of shipping between larger producers and smaller, specialized firms. A small sock maker is better able to compete with a larger sock maker since both

bear the cost of shipping smaller, more specialized loads to consumers. This also creates an advantage for U.S. firms in smaller niche markets (cashmere socks) versus the advantage large overseas firms have in commodity markets (standard tube socks). Smaller rural firms can take advantage of increased consumer demand for highly differentiated products such as GDV's hand-woven, locally made, Churro wool blankets.

On the other hand, the increase in specialized consumer servicing has driven a decentralization of production and distribution, with multi-national firms now locating branches near large urban centers. Companies are structuring themselves in this manner primarily to be closer to large pools of skilled and cheap labor. Textile production, for example, has increasingly located where there is cheaper labor to make the clothes, but also where there are professionals to design and market the products. Companies can respond quickly to local trends and run shorter, smaller, more specialized production cycles.

“A history of organizing and political movements in the Chama Valley underpinned the community’s desire and ability to own the initiative.”

The current economic contexts in rural areas offer opportunities and barriers for development. While the barriers seem insurmountable at times, the trends of distance and technology favor rural development, except for tourism.

5. The Importance of the Historical, Cultural and Geographic Contexts

All four projects have drawn on local history and culture to add value to products, galvanize community participation and influence organizational and ownership schemes.

WPCC, AVI and GDV imbue their products with greater value because of their unique place and culture. Focusing on furniture making and other secondary wood products made sense in the Northwest — a region where logging has thrived and consumers envision good quality hardwoods. WPCC’s “Made in Oregon” seal is a successful marketing tool because people all over the world associate Oregon with beautiful wilderness, good quality wood and craftsmanship.

In the cases of AVI and GDV, their unique history, place and culture inform which kinds of products are sold, their value, the production process, marketing and consumption. The success of the businesses relies in part on how well they tap into consumers’ demand for unique and culturally-based products and places. Native Alaskan culture and the natural beauty of the land are assets that AVI markets to tourists, assets that contribute to the success of the ventures. Likewise in northern New Mexico, GDV markets a pastoral lifestyle and the preservation of Hispanic culture to tourists and other consumers who are concerned about socially responsible business.

For AVI and GDV, local history and culture (even if revisionist or mythical at times) are used to galvanize the community and teach workers specialized and valuable new skills. This is not to say that AVI or GDV manipulate local people in the name

of profit. Instead, they believe that business ownership gives local people power, and that teaching people about their past brings the community closer. In turn, local people have more control over how their culture and economy develops and more stake in the success of local enterprises. In AVI-supported businesses, young workers learn new skills from elders about their culture and crafts. In GDV, local people learn how to weave carpets and clothing using traditional Hispanic and Native American designs. For rural low income people in northern New Mexico and Alaska, these skills translate into more income, and their participation potentially means increased sense of identity and ties to their community.

Forms of organization and ownership are also affected by what has come before. Forming a co-operative in rural New Mexico made sense because this form of ownership fit with a tradition of collectivism. A history of organizing and political movements in the Chama Valley underpinned the community’s desire and ability to own the initiative. Without this history of collectivism, GDV would likely have been a more difficult endeavor, and possibly would not have happened at all. HTC’s business network thrives and has lasted so long in part because the family-owned businesses in North Carolina have a tradition of sharing information and helping each other in difficult times.

6. Having Supportive Partnerships and Public Investment

Local economic development initiatives—sector strategies and others—are both assisted and constrained by aid (or its lack) from external sources. The lack of support infrastructure translates into fewer opportunities for partnership in rural areas. Sectoral strategies derive much of their power by strategically recruiting multiple resources and organizing them through partnerships and collaborations. Even a program like HTC, which has substantial in-house expertise, relies heavily on

“Sectoral strategies derive much of their power by strategically recruiting multiple resources and organizing them through partnerships and collaborations.”

partners to enrich the services it offers hosiery mills. HTC’s major partners illustrate the diversity of those resources:

- ◆ Carolina Hosiery Association: industry trade association, industry networking.
- ◆ Southeastern Manufacturing Technology Center: training and technical assistance organization, expertise in manufacturing modernization.
- ◆ North Carolina Department of Labor: workforce development resources for the economically disadvantaged.
- ◆ Catawba Valley Community College and Randolph Community College: educational programs that complement hosiery training, such as ESL, GED, computer and electronics classes.
- ◆ North Carolina Alliance for Technology: state agency for coordinating research and technology transfer.
- ◆ NC State University: technology R&D.
- ◆ Clemson Apparel Research: on-line network for the hosiery industry.
- ◆ Machine and Yarn Vendors: demonstrate new technology.

In Oregon, WPCC successfully recruited community colleges to collaborate in a workforce development program with the wood products industry. With the \$35 million loan guarantee program as leverage, WPCC has also been able to better connect wood products companies with banks. This range of partners and resources is simply not available to a GDV or an AVI.

The range of partnership opportunities is also a function of how much public investment the sector is able to command. Obviously in Oregon, the wood products industry commands much attention: thus, the willingness of the legislature to invest \$2.3 million to start WPCC and create a loan guarantee program. The situation was somewhat different in North Carolina, where the hosiery industry

had never been a high priority of state government. Since the hosiery industry was comprised mainly of small family-owned firms and perceived as “low-tech” and declining, it did not have the political clout of larger, more prestigious industries. Consequently, obtaining funding for the HTC was a struggle, particularly since the community colleges opposed their funds being diverted to the HTC.

While the hosiery industry itself may have difficulty commanding resources, it has been able to take advantage of other state investments in education and infrastructure. Since the 1950s, North Carolina has invested heavily in post-secondary industrial education centers and junior colleges. In 1963, the two systems were merged, but the goals of serving the educational needs of students and the training needs of industry were preserved.¹ According to a recent *Wall Street Journal* article, North Carolina’s community college system is one of the best in the country, and is a factor for attracting new industry.² Similarly, investments in highways also contribute to industry competitiveness. HTC serves an area bisected by two major interstate highways which provide easy access to trucking and airports in Charlotte and Greensboro.

Since tourism is an important industry in Alaska, AVI has been able to receive some public resources. Much of the funding for AVI’s tourism programs has come from the State Division of Tourism. However, because AVI’s target villages lack population, are dispersed and hard to reach, and have mostly small-scale attractions, they have not been able to command investment by the regional destination marketing organization. And public resources only modestly offset the lack of investment and operations by major private tourism companies, which build off of airplane and boat arrivals in the main tourist corridor.

Public resources have not gone to GDV. Not only is GDV’s target area remote and sparsely populated, its industries – sheep growing, wool products, crafts, micro-scale meat processing – are not priori-

“The challenges of collaboration are more strongly evident between businesses and other potential partners. Many businesses are wary of involvement by government or outsiders.”

ties for the state. While the public may care about GDV's target area because of concerns about environmental protection, natural resources and land use, the area does not figure significantly in the state's overall economic development strategy.

7. Taking into Account the Impact of Institutional Culture on Partnerships

While sector strategies may derive their power from partnerships, they also struggle to manage relationships among quite disparate actors. Much of a program's effectiveness is determined by its skill in managing relationships. Partnerships are also affected by varying institutional cultures.

The culture issue plays out among firms within the sector. In North Carolina, a business network was already in place and firms enjoyed a tradition of cooperation. Cooperation was enhanced by a southern culture of friendliness that was evident in site visits and numerous interviews. Truly friendly, supportive working relationships exist between partners.

On the other hand, the wood products industry in Oregon lacked such a tradition of cooperation. In keeping with Oregon's frontier history, wood product businesses are ruggedly independent. According to a WPCC board member, it has been difficult for firms to break habits of keeping to themselves and secrecy. "Some hold their cards close," he said. "Some think collaboration means stealing customers." Other owners may be less concerned about business secrets, but simply see little value in cooperation.

The challenges of collaboration are more strongly evident between businesses and other potential partners. Many businesses are wary of involvement by government or outsiders. The struggle to bridge cultural and institutional gaps have been most evident in HTC's and WPCC's

work with community colleges. Businesspeople and education administrators have differing organizational cultures, languages, bureaucracies, patience with "process" and meeting styles. The community college schedule of semesters and summer vacations has impeded HTC's attempts to provide "just-in-time" training to hosiery mills. WPCC found that the community college schedules ran counter to local production cycles. The schools graduated people in December and May, the firms had their biggest hiring push in August.

Strict rules about minimum class size (eight "full-time equivalents") inhibit both the timing and quality of the teaching. According to the HTC director, classroom-style training is not effective for the hosiery industry. Training works best when it is intensive, hands-on and conducted in small groups of three to five people.

HTC encountered strong resistance from nearby community colleges when it attempted to recruit and train workers outside of Catawba County. North Carolina community colleges prefer that each college operate in its own territory. Thus it is difficult for industry clusters — usually located across several counties — to access coordinated training programs across jurisdictions. One HTC staff member commented, "The bureaucracy is overwhelming....It's like a kudzu vine....It will overtake you before you know what's happened to you."³ Similarly the process of standardizing wood products training across several community college districts in Oregon has been slow and arduous.

8. Finding the Added Value

Ultimately, a sectoral program succeeds by consistently adding significant value to its constituent firms, enough value so that it makes them more successful. For HTC and WPCC, the keys are to be flexible and responsive to the firms they serve. HTC attempts to maintain a balance of careful long-term planning and responsive, seat-of-the-

“Designing a new community college training system was a 9-month process involving staff from three community colleges, seven Oregon counties and 28 manufacturers from around the state.”

pants action. WPCC allows itself and its programs to evolve, grow and shrink depending on business needs and market change. As wood supply became less of a crisis due to South American and South Pacific imports, WPCC reduced its emphasis in that area. Conversely, when many firms expressed interest in market development, WPCC increased its emphasis on marketing and exports to the Pacific rim. Program designs should not be fixed; it is a learning process.

Because their business bases are fragile, AVI and GDV are thrust in a very different role than HTC and WPCC. They must lead their business constituency more than respond to it. Finding the value added is more complex. They must add much more value to help their businesses survive. They must constantly refine the product and keep up with market trends.

9. Having Quality Staff

Obviously, the success of a sectoral program depends on a strong, deeply committed staff. Visionary, highly dedicated directors have led all four programs. The director of HTC's Randolph site says that staff "eat, sleep and drink socks," for example. The specific mix of in-house skills and partners varied, as did the staff roles. But, in each case, the organizations had assembled a group of talented leaders and professionals who could:

- ◆ Work across different institutional cultures and hold partnerships together, bringing the respect needed to gain the continued participation of businesses, public and private partners, and community residents.
- ◆ Deliver services that were truly valuable to firms and residents, and also look beyond providing services to individuals and firms to see the underlying, systemic issues.
- ◆ Engage business meaningfully over time and foster business leadership in the initiative.

- ◆ Be entrepreneurial, resourceful and creative problem-solvers.

- ◆ Cut through "red-tape" to keep projects moving.

Our sector sites were led by strong, competent, confident people with substantial relevant experience who hired staff and "recruited" people in partner agencies with complementary skills and backgrounds, thus allowing versatility and innovative approaches. For example, both HTC's director and the SMTC representative assisting the center have engineering and industrial backgrounds with several years of experience in state-of-the-art manufacturing corporations. They knew "where the mills should be in order to compete," as an SMTC staff member said.

Complementing the picture was NCDOL's representative, who comes from a social services background, while the manufacturing network president was previously a journalist. Randolph's director spent many years as a business owner, working in a large local hosiery manufacturer. The close relationships and complementary roles played by partners enable processes to move forward. According to a hosiery mill president, HTC director "Dan St. Louis and the folks he's got on board have a knack for cutting through 'red-tape' to keep things moving and recruiting talented and motivated people to work for the center."

Similarly, WPCC's staff is talented in gaining the participation of disparate partners. Designing a new community college wood products training system was a 9-month process involving staff from three community colleges, seven Oregon counties and 28 secondary wood product manufacturers from around the state. The process included a needs assessment of 100 companies. WPCC staff led and facilitated the process between the community colleges and firms. WPCC's training representative, a long-time manager in the wood products industry and a former high school teacher, is "at the center of the web...All roads in secondary woods lead to

“Visionary, highly dedicated directors have led all four programs. The director of HTC’s Randolph site says that staff ‘eat, sleep and drink socks.’”

him. If I have any questions about anything he knows every name, every face in the business,” according to a community college trainer.

WPCC’s director exhibits politically savvy, strong business management skills and has a background in industrial networks and entrepreneurial public/private ventures. WPCC staff have taken varied and entrepreneurial approaches to solving problems. They aggressively advocate for funding from public and private sources. And they are willing to take approaches that are political (phone calls to the governor, visits to state grantmakers), technical

(market research) or collaborative (bring in other experts like the community colleges) to help businesses solve problems.

Endnotes

¹ Rosenfeld, (1995)

² *Wall Street Journal*

³ *The Economist* (Dec. 10, 1994; “The American South”) claims that one way to geographically define the south is the area of the US where kudzu grows. Kudzu is an invasive weed, the bane of every Southern gardener.

5

Conclusions and Recommendations

The evidence about the performance and impact of rural sectoral initiatives indicates that they are well worth expanding in size and range of activities, as well as replicating elsewhere. In this section we make recommendations for expansion, extension and replication.

How Can Existing Sectoral Initiatives Be Expanded and Extended?

Because the sectoral initiatives we studied set different priorities and evolved in different ways, the logical directions for their expansion and extension differ. However, there are several common themes, reflecting both currently emerging directions and already successful evolutions.

The four sites we studied can be grouped into two fairly distinct, yet often overlapping sectoral approaches: two sites primarily address retention and expansion of existing sectors and two sites pertain to the creation and expansion of a sector or cluster. Taken together, the lessons below address both approaches.

Help Businesses Adopt Appropriate Technologies and Obtain R&D Support

HTC has made substantial progress in providing services to aid manufacturing modernization, while WPCC has not provided as much modernization assistance. Especially for the smaller firms that characterize the sectors we examined, access to modern technology and management techniques are important. All the projects, and in particular AVI and GDV, would benefit from the appropriate use of communications technology for marketing and outreach.

Federally sponsored regional manufacturing extension centers (MEPs), where they are available, can be a key resource for manufacturing modernization, as was the case with HTC. As WPCC found in Oregon, however, MEPs do not always see the advantage in concentrating their efforts sectorally or in small local firms.

Access to information is faster, easier and less expensive than in the past, and people separated by distance are more connected because of modern telecommunications. These trends favor rural development — but only if communities have the necessary infrastructure and understand how to apply technology effectively. GDV's profitability could probably increase greatly if its products could be ordered on the Internet. Conducting more business over the Internet could decrease overtime costs.

Research and development are also important. HTC is beginning to link small businesses with university R&D resources. The aerospace and biotechnology fields benefit from university research dollars and expertise; other sectors can demand some of the resources as well. Hosiery was not as glamorous and powerful as nearby defense-related industries, but it was an important local industry and needed entirely new technologies to compete globally. WPCC and its partner businesses could also benefit from reaching out to universities for resources in developing new appropriate technologies for the wood products industry.

Focus on Marketing

Shifts towards more specialization and increased marketplace complexity are both opportunities and barriers for retaining and creating small rural firms. There are more niches to exploit, but more sophisticated marketing is needed to reach consumers and retailers. Connecting businesses to larger markets outside of their area is critical. Marketing must be dynamic, always changing with consumer pref-

“No staff person could be expected to be the sole T.A. provider for products as diverse as lamb sausages, weaving and processing wool, and recycled tires. Outside consultants were used with varying degrees of success.”

erences, which means that firms need ongoing assistance or in-house expertise.

WPCC has effectively combined firms' international marketing efforts to reduce the costs of attending distant trade shows. WPCC's buyers/sellers conferences turn marketing upside down by having buyers tell manufacturers directly what they need. WPCC has turned more and more of its energy towards marketing — particularly bridging the cultural divide with Pacific Rim countries. Firms share contacts and relationships they have in Asian countries, contacts that are invaluable because of their importance in accessing Japanese business people.

Find Ways To Provide Needed Expertise

Finding expertise is a bigger problem for rural areas. Design, advertising, finance, marketing and more are concentrated in metropolitan areas and difficult to find in rural areas. On the positive side, businesses can inexpensively communicate and retrieve designs by computer with e-mail. Despite this trend, face-to-face interaction is still needed, and even with phone and e-mail it is not easy for small isolated firms to access needed expertise.

Reliance on GDV staff to provide virtually all technical assistance has held business development back. No staff person could be expected to be the sole T.A. provider for products as diverse as lamb sausages, weaving and processing wool, and recycled tires. Outside consultants in the different industries were used with varying degrees of success. With the notable exception of Tierra Wools, GDV staff has provided virtually all technical assistance for start-ups. Typical of community-based enterprises, GDV also needed help in capital development and forming relationships with regional banking institutions.

AVI has had serious problems getting expertise to distant locations — Alaska is a big state and transportation costly. AVI has tried to identify common needs of several businesses and bring them together for one training. But this can cause a lag time and businesses don't always get help when they need it. It has been a challenge to balance the need for timely services with the cost of flying great distances to help one small business. AVI is attempting to increase its ability to sort out which businesses have ideas worth pursuing and which enterprises warrant the high travel costs.

Focus on the Intersection of Technology and Training

Sectoral initiatives recognize the synergy between technology and upgrading the skills of workers, particularly in manufacturing. To install and efficiently use modern equipment, production workers and frontline supervisors need to know how to operate, set up and maintain it. This now frequently involves computer-aided and computer-controlled machinery, requiring some computer literacy. The ability of a sectoral organization to deliver effective training to entering and continuing workers — and to facilitate the investment in and adoption of up-to-date technology — is key to modernization assistance.

In the best cases, as in the partnerships HTC and WPCC have created, manufacturers are direct partners in the training efforts. Up-to-date equipment that the companies will actually use in production is used in the training.

The combination of helping upgrade production technology and worker skills appears to be a powerful tool for manufacturers, and thus an important area for future sectoral work.

“Rural areas suffer from being cut off from other firms and markets and depend on new ways to get information. Continuing to foster communication among firms is essential.”

Work To Expand Job Training and Placement Efforts

No organization has yet been able to deliver, by itself or with a partner, a program that includes all elements of job training, readiness, placement, school-to-work and support services provided both pre- and post-employment — and integrate employers into all these activities. But some of the best sectoral organizations recognize that all these elements are important, and most are currently expanding their workforce programming:

- ◆ WPCC is moving more heavily into employer-driven skill training for current workers. WPCC has had some early successes in initiating, standardizing and improving secondary wood product training programs state-wide through community colleges.
- ◆ HTC, which had focused on skills training, is continually deepening its partnership with the North Carolina State Department of Labor to recruit incoming immigrants and welfare recipients in need of work. It also uses English as a Second Language and other supplementary basic education. In addition, HTC has successfully expanded its training program to another community college district, allowing it to serve more hosiery businesses.
- ◆ AVI is concentrating on training young people through work experience and preparing leader entrepreneurs to introduce other residents to new patterns of work behavior, while preserving native culture.

Developing full, effective workforce development systems — with rural sectoral organizations as both operators and broker-partners — is a likely continuing direction and a desirable extension to current programming.

Build Strong Networks

Rural areas in particular suffer from being cut off from other firms and markets and depend on new ways to get information. Continuing to foster and expand communication among firms — and between the sectoral program and firms — is essential.

HTC, WPCC and AVI (especially in the marketing cooperative) depend on formal business networks with regular meetings, events, newsletters and collaborative projects. The continuing expansion of such networks serves to:

- ◆ **Drive down the cost of technical assistance and training.** Especially in rural areas, it is difficult to find expertise and afford the cost of sophisticated services — marketing, finance, venture capital, management — as one small firm. WPCC’s marketing services demonstrate the advantage of several firms sharing the cost of a service and employing someone locally to provide the service, avoiding the cost of flying someone in regularly.
- ◆ **Increase a sense of ownership and belonging by businesses.**
- ◆ **Increase the information base** around which much successful sectoral work has been planned.
- ◆ **Increase firms’ long-term participation in local job-hiring programs.**
- ◆ **Increase the ability to apply political pressure when needed to accomplish goals.** Had the hosiery mills not been organized, the state legislature would not have allocated the money to create HTC.
- ◆ **Help achieve a scale that makes other resources available.** Together, firms are able to approach the MEP, community colleges and universities with ideas and demands. One small firm alone may not have been given any attention.

“Building new enterprises, particularly in isolated areas, takes intensive work over a long period, but it makes sense where the effort captures significant market share and perhaps preserves culture and generates jobs.”

Create and Support Viable New Businesses Where Needed

Even as natural resource economies shrink and people are drawn to metropolitan areas, people will continue to live in rural areas (perhaps in even greater numbers) and need to make a living. There is a need to create businesses based on an area's competitive advantages, whether it involves existing sectors, existing workforce skills, or entirely new types of businesses.

Sectors can be created from scratch (GDV) or by finding ways to get into sectors that are dominated by companies outside an area (AVI). As GDV and AVI demonstrate, business growth that is sensitive to culture and environment can be attained by carefully planning and encouraging local ownership. The data are unclear about how good GDV and AVI are as business generators. But this highlights the obvious: generating businesses anywhere is difficult, let alone in isolated areas.

It is important to acknowledge the fragile nature of new firms. To fairly judge outcomes, an analysis needs to consider a program's starting points and obstacles. Building new enterprises, particularly in isolated areas, takes intensive work over a long period, but it makes sense where the effort captures significant market share and perhaps preserves culture and generates jobs.

Achieve Economies of Scale

This can be done by expanding geographic reach, increasing the number of businesses being reached or finding ways to provide services more efficiently.

HTC and WPCC are widening their geographic focus to take advantage of an entire region of economic activity and a larger cluster of firms:

- ◆ HTC has expanded by opening another center at Randolph Community College in Asheboro, NC,

-serving eight more counties and up to 100 additional firms.

- ◆ WPCC is expanding membership and its influence beyond Oregon into Washington, Idaho and Northern California. Since we conducted our site visits and research, WPCC has changed its name to the Northwest Wood Products Association (NWPA).

Besides the obvious benefit of wider reach by first-rate service providers, a larger scale has additional advantages. Having more firms with common technology and training needs, marketing goals and purchasing requirements can justify the joint programs which save money. Other advantages include being able to efficiently provide specialized training and increased ability to match job candidates with available, appropriate jobs.

Understand and Respond to the Consequences of “Welfare Reform”

The sharp changes in welfare programs have created pressure for more work opportunities. Rural sectoral efforts are natural job generators. In their best forms, the initiatives retain and create jobs, in or near communities where many welfare recipients live. Some of these jobs require little skill and experience, pay relatively decent wages and benefits, and are already the targets of programs to prepare disadvantaged people for work and link them to job openings. Rural sectoral initiatives' already existing programs could be expanded to include outreach to welfare recipients as well as the supportive services they need, such as child care and medical care.

HTC's new site at Randolph Community College is collaborating with the state Department of Labor in workshops that familiarize employers and welfare case workers about the needs of welfare recipients when they return to work, services available to workers, and tax credits and on-the-job training dollars available to subsidize wages.

“Flexible money is needed to support innovative and flexible ways of providing technical assistance.”

Randolph’s HTC director also speaks to welfare recipients at the Department of Social Service once a month to recruit people into the program.

The Need for Flexible Money

Our study’s sectoral initiatives are very thinly staffed to do such staff-intensive work, even taking into account their many partners and referrals. To expand and extend their efforts, they will need additional flexible funds. These funds need not be purely core support money, since most of their work involves specific projects. But project funds without money for administration and program staff will not meet the need.

Flexible money is also needed to support innovative and flexible ways of providing technical assistance. Without such money, programs may not be able to afford or recruit specialized service providers, fly them in, or pay the cost of long distance calls and e-mail.

At the same time, programs need to be cautious about providing subsidies to enterprises. Subsidies provided to start-up businesses can postpone a true marketplace test. Such subsidies generally took the form of salary for managers and salespeople, allowing the businesses to get unrealistic senses of their profitability. Subsidies must be handled very carefully to avoid this problem.

What Is the Best Way to Replicate Programs that Target the Disadvantaged?

Most sectoral programs in the United States are within the mainstream of economic development, with few focusing on employing disadvantaged people and assisting low income communities. This report has found that those that do have this focus have been quite successful, which suggests that

more rural sectoral programs should adopt this goal. For this to happen, it will be necessary for:

- ◆ Proponents and practitioners of sectoral programs to communicate more widely about the strategy, giving it increased visibility.
- ◆ Public and private sector funders to expand flexible support for development and operations.
- ◆ Policymakers to be educated — and economic development professionals re-educated — about the value of such efforts.

Our discussion of how the existing initiatives evolved and why they succeeded can provide guidance about how to replicate such programs. A few ideas deserve highlighting.

◆ **A strong commitment to both the growth of industry and the targeting of that growth on low income people and communities is key.**

There are too many other conflicting demands to maintain such a focus without a few stalwart entrepreneurial visionaries. It also appears crucial to establish organizations whose sole or main purpose is sectoral efforts.

◆ **Recruiting and training leaders to staff the new organizations is a major need.** Few people have been able to combine business assistance, targeted workforce development and community development in disadvantaged areas, and the vision and skills do not automatically overlap. Existing training programs do not cover the full spectrum, and none pretends to integrate them. There are few programs from which to recruit leaders. Creating and finding an appropriate home for such training will be a critical challenge.

◆ **Similarly, staff and board of new sectoral organizations need to be able to visit strong existing initiatives and to learn from peer contact.** Resources for these purposes will be crucial. We found that even the staff leaders of our study organizations — most with extensive experience — welcomed an opportunity to meet and learn from

“If a choice of sectors is available, it is ideal to intervene in one that already is good to its workers.”

each other. Its importance will be even greater for new leaders and organizations.

◆ **Reaching out to businesses and building initial credibility will be crucial**, as it was in the early years of existing initiatives. Closely related is the need to select a target area of sufficient scale and industrial concentration. A small neighborhood or small town will not do.

◆ **Paying attention to job quality, business ownership and equity when choosing a sector to focus on is key.** In terms of benefiting low income people, all sectors are not created equal. Sectors vary greatly in salary, benefits, management, unionization, career ladders and so on. (And these factors vary still more in different areas of the country and within a region.) If a choice of sectors is available, it is ideal to intervene in one that already is good to its workers, or be ready to engage in the more difficult task of changing the sector's structure (unless you are satisfied with low-wage jobs or are using them as a ladder into another well-paying sector). While there is a great need to intervene in sectors where businesses pay poverty wages and only hire people part-time in order to “remain competitive,” trying to change such a sector is a more difficult task. Focusing on a group of businesses that already pay decent wages will enable those business to keep paying these wages while staying competitive. Helping such businesses modernize, train and recruit workers and offer career ladders may have more impact on the people you want to assist. If a “humane” sector does not exist, look for the opportunity to create one.

◆ **Building broad-based partnerships is also crucial, as is the willingness of the partners to jointly pressure local or state government to take actions and support activities that have proven to be effective.** With HTC, advocacy was needed to prompt state universities to spend resources on research and development, and to obtain community college resources for training. A business network effectively advocated

for industrial retention resources. Under different circumstances, there could be a greater role for community-based organizations to advocate for resources for business assistance, retention and job-training efforts, with training and job placement being targeted on economically disadvantaged people.

◆ **Providing resources to build the capacity of new sectoral efforts is important**, whether or not local or state government is the primary vehicle. These include:

- Core support for basic operations.
- Training for staff and board.
- Technical assistance both to attain specialized skills from outsiders and to build program and organizational development skills in-house.

How to Get Started

One strength of a sector strategy is its effectiveness in diverse circumstances and economies. Sectoral initiatives have diverse origins, missions and constituencies. GDV was established by community organizing, HTC by an industry association. AVI's primary mission was to embrace native Alaskan cultural values and strengthen self-sufficiency, while HTC sought to strengthen the hosiery sector's competitiveness. AVI's constituency is small tourism businesses, while WPCC's is small to mid-sized wood products businesses.

It's not that difficult to assess the feasibility of starting a rural sector initiative. Despite their diversity, there are several common steps, though they won't always happen in the same order.

1. Begin with strong leadership and an issue around which people can be organized. In Oregon, it was a moratorium on timber harvesting on public lands. In North Carolina, it was businesses quickly losing out to foreign competition.

“Sector strategies require knowing the barriers, strengths, opportunities, resources and competitive factors of a targeted group of businesses.”

2. Undertake a strategic analysis. One can readily enough roughly assess the market, the nature of existing firms (especially size and sectoral concentrations), the interest of potential business and community leaders, and the needs and qualities of the workforce. Sector strategies begin by analyzing an industry’s structure and market dynamics and identifying economic and political leverage points. Sector strategies require knowing the barriers, strengths, opportunities, resources and competitive factors of a targeted group of businesses.

3. From the outset, clearly define and target a sector. Present a rationale for the steps necessary to help the targeted businesses become more competitive and grow.

4. Organize stakeholders. (This step often precedes steps two or three.) Organizing stakeholders such as key business or community leaders — and moving quickly on a couple of attainable priorities — is how existing, successful programs got underway. GDV emerged and continually drew strength from its community organizing base. Similarly, HTC emerged and drew strength from an existing industry association. WPCC and AVI organized entirely new business networks. By involving many stakeholders, you develop sufficient scale to make services cost effective. You also increase your political leverage to change existing systems.

5. Find some initial operating funds, and try to develop a system for providing other types of support. Fortunately, experience shows that the budget for successful early action is very modest (although the cost of a comprehensive program that includes many of the activities we found to be valuable would be much higher).

6. Be patient: developing comprehensive programs — with complementary parts and partners — requires patience (and patient investment). Developing trust among businesses, staff capacity and confidence, and an effective set of programs has

taken time, even for the best programs. The experience we now have about how to develop a program — along with having more support systems in place that can assist new programs — could shorten the timeline. We have seen, for example, how an infusion of state funds in the very beginning accelerated the development of WPCC.

7. Develop appropriate and flexible program tools. These four programs used tools such as networks and communication, advocacy, research and development, technology transfer, management training, employment and training, finance, supply development, marketing assistance, and new product and market development. Ongoing analysis of the sector and the market will suggest the tools that will address the problems firms are experiencing, problems that may be keeping them from being more competitive. As market conditions change, so must the tools you use. Build in ways to keep up with market trends. Take advantage of changes, such as new ways to communicate and market products, a good example being the Internet.

Developing an effective sector program in a rural area is not an easy or quick solution to the need for jobs and economic development. But it is an approach that can make a significant difference over time, helping an industry or a cluster of businesses compete more effectively, thus retaining and increasing local jobs.

The principles underlying an effective sector strategy can also be applied to other approaches to strengthening a rural economy. For example, a rigorous strategic analysis of a local economy is needed, whatever the economic development strategy. It is pointless to put a lot of time and resources into an economic development strategy that has little hope of succeeding because of underlying economic problems that a good analysis should have highlighted.

“The bottom line is that, at least in most rural areas, there are ways to strengthen the local economy and produce needed local jobs.”

Other principles — the need to involve many partners and many local businesses, the need to keep economic development efforts focused and thus manageable, the need to achieve economies-of-scale in services such as training — also can be applied to most approaches to economic development in rural areas.

The bottom line is that, at least in most rural areas, there are ways to strengthen the local economy and produce needed local jobs. This can help reverse the decline in many rural economies that has led to persistently high rates of poverty and joblessness in too many rural communities.

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