

**ECONOMIC DEVELOPMENT BUSINESS ASSISTANCE
TECHNOLOGY TRANSFER AND OTHER PROGRAMS
SUPPORTING SECONDARY WOOD PRODUCTS
MANUFACTURING IN MAINE**

Background paper for productivity strategy conference for

Maine's Secondary Wood Products Industry

Bethel, Maine

January 1994

Maine Rural Development Council

By

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ABSTRACT

A brief canvass of economic development programs reveals 27 programs that have dealt with secondary wood products. There are undoubtedly others, but the major ones have been identified. Programs focused specifically on secondary wood products are few. Experience suggests that the capacity to "facilitate" individual projects by "packaging" the array of available services and programs is critical. Nine recommendations on development programs by Osborne deserve serious consideration by Maine's economic development community.

INTRODUCTION

This paper provides an overview of private and public programs that are available to support economic and business development in the secondary wood products industry in Maine. In addition, it offers a general appraisal of the market penetration of the programs and of their general effectiveness. Few in-depth formal evaluations have been done on these programs in Maine or in similar situations elsewhere; therefore, evaluations of program effectiveness are based on authors' experience and on conversations with program managers.

The purpose of this overview is to provide a useful depiction of programs currently available, and a general sense of program success for use as background for the productivity strategy conference for Maine's secondary wood products industry.

The programs are broken down into three general categories:

- a) programs addressing secondary wood products industries and business specifically;
- b) programs addressing the wood products/natural resources sector more generally; and
- c) economic development and assistance programs generally available to any business, including wood products firms.

This paper begins with a brief overview of Maine's secondary wood manufacturing sector. An overview of programs is provided. It then summarizes economic development programs. Finally, it provides a general overview of economic development lessons, drawn from Maine and national experience.

SECONDARY WOOD PRODUCTS: SCOPE OF THE FIELD

The term "secondary wood products" has indistinct boundaries. It refers generally to the act of creating intermediate or final consumer goods from lumber or wood initially produced from raw logs harvested from the woods. The term "value added" is often used synonymously and indicates the desirable economic consequences of making more valuable products from raw wood supplies. Several sources are available that set the wood products industry into the context of Maine's economy (Colgan, Irland, and Benson, 1986; NEFA, 1993; Irland, 1990), and that examine value added industries in general (Irland and Maxcy, 1991; Irland Group and Market Decisions, 1990; Irland and Murdoch, 1992).

Available statistics do not adequately depict this value added sector. This is for several reasons. First, many sawmills engage very heavily in value added processing of their own lumber, and may even buy additional lumber for this purpose. Yet their output and employment in value added are usually reported together with the sawmilling employment. Second, many value added processes are highly seasonal, such as Christmas wreaths and many gift items. Not only are such seasonal enterprises hard to count, they may be conducted by microbusinesses not picked up in the statistical system and often use part time or "under-the-table" paid labor. Finally, wood enters into so many products that identifying and classifying them all is difficult. Is a fiberglass ski using a wood core a value added wood product?

Nonetheless, efforts to measure the values of the wood products sector shows that secondary wood products account for about \$200 million in annual output (Table 1). (Note that several sectors are included that might not be immediately obvious, and that those sectors included some firms not using wood at all.)

According to Washburn's (1994) preliminary results, there are about 350 firms employing two or more people in secondary wood products manufacturing.

Table 1
Maine Solid Wood Industries, 1988

<u>SIC</u>	<u>Industry</u>	<u>Value of Product (\$ Million)</u>	<u>Average Wage (\$/yr.)</u>	<u>Employment Total</u>
24	LUMBER & WOOD PRODUCT	1,119.9	17,753	13,157
241	Logging Camps & Contractors	513.8	18,609	3,731
242	Sawmills & Planing	283.3	19,890	3,279
243	Millwork & Cabinets	74.4	17,358	1,176
2431	Millwork	21.3	18,925	329
2434	Wood Kitchen Cabinets	9.2	13,481	188
2439	Structural Wood Members, NEC	28.8	19,315	386
244	Wood Containers	11.5	13,624	231
2448	Wood Pallets and Skids	5.9	14,651	99
2449	Wood Containers, NEC	3.9	12,720	92
245	Wood Buildings & Mobile Homes	66.9	19,311	697
2451	Mobile Homes	28.3	18,042	392
2452	Prefabricated Wood Buildings	38.6	20,942	305
249	Miscellaneous Wood Products	170.0	15,310	4,043
2511	Wood Household Furniture, exc. Upholstery	32.9	16,101	729
394	Toys & Sporting Goods	22.1	14,272	394
	TOTAL	1,174.9	--	14,280

Source: Maine Department of Labor, Census of Maine Manufacturers, as analyzed in Irland and Murdoch, 1992, p. 2.

TYPES OF DEVELOPMENT PROGRAMS

Several reviews of economic development programs for the wood industry have been done (Clark, Lutz, and Howard, 1993; North. For. Lands Council, 1992; Thomas, n.d.).

Development programs can be classified in a variety of ways. One is by type of provider (Table 2), another is by the form of assistance offered (Table 3).

Table 2	
Classification Used for This Report	
<u>General Category</u>	<u>Type of Provider</u>
a) Focused on secondary wood products	Federal Government
b) Serving wood products generally	State Government
c) Overall economic development	Intergovernmental Private

A helpful listing of the types of services provided to wood products firms has been developed by the Maine RDC (1994).

Table 3	
Types of Development Programs	
<u>Types of Development Programs</u>	<u>Examples</u>
Individual skill building	CEI, SCORE
Technical assistance and tech transfer	Cooperative Extension, UM Professional Development
Resource supply and demand assessment	MFS and USFS resource studies
Training programs	OSHA, NDMA, WPMA
General development facilitation	County development directors; regional development commissions, electric utilities
Market information	NEPEX and state research; EDA feasibility studies
Financial assistance	FAME, SBA, CEI, CDBG
Infrastructure provisions	State DOT, UDAG, etc.

To organize this paper's discussion of the programs, we classify them first by the degree of their orientation toward secondary wood products. Within each section, the programs are grouped according to level of government and private types of provider. It seemed useful to recognize an "intergovernmental" form of program to recognize that many programs are of this kind. In few cases is this classification precise. We use it only as an organizational device.

PROGRAMS FOCUSED ON SECONDARY WOOD PRODUCTS

PRIVATE PROGRAMS

National Dimension Manufacturers Association

Dimension is a generic term that can cover items ranging from minimally processed wood cut into blanks for further processing to ready-to-finish parts and components for furniture, cabinets, or other products. The NDMA has about 100 members nationally, though none at present in Maine. The Association visits two trade shows per year domestically and two internationally. Also, they conduct an annual trade mission to Japan and one to Europe. The trade missions generally result in establishing business relationships and mutual awareness of customer needs and producer capabilities.

These missions are probably having a very desirable effect in making foreign buyers better aware of American woods and manufacturing capabilities. The trade missions include plant visits to potential customers. They also include visits to major trade fairs where equipment and products are displayed. At these fairs, it is expected that orders will be placed, but attendees also use them to expand business networks and to study new equipment, products, and competitive trends.

The group formerly conducted reverse trade missions, but is no longer doing so. (Reverse trade missions involve bringing foreign customers to U.S. mills, instead of vice versa).

Wood Products Manufacturers Association

The WPMA is headquartered in Gardner, Mass, in a traditional furniture and wood products manufacturing area. The Association represents a variety of industry suppliers, sawmill and secondary producers, truckers, and equipment dealers. WPMA conducts one or two training sessions each year on topics of importance to management, such as cost analysis, safety, and personnel management issues. They also run a booth at major trade shows.

INTERGOVERNMENTAL

The Five Maine RC&D Districts

Heart of Maine is in the lead on a statewide project to fully inventory activity in secondary wood processing in Maine. Roughly 350 firms employing 2 or more people each

have been identified. The plan is to personally visits all of them for interviews, to be conducted by RC&D committee members. The interviews are 57% complete as of late December. All of the RC&D Districts are engaged in one or another program supporting forestry and forest industry. The RC&D's also sponsored a market study on cedar shingles (Sewall, 1993).

Greenville Economic Development Office

The Greenville Office of Economic Development, using a grant from the U.S. Forest Service Rural Development Program, has completed two important studies. The first (Enterprise Res. 1991) provided a general overview of opportunities for wood products manufacturing in the Greenville area.

The second study (Enterprise Res., 1992) provided a market and feasibility study and model business plan for a hardwood panel mill located in the Greenville area. The plan has been used to attract an investor to develop a plant in the Greenville area which could employ 30 workers. If final hurdles can be overcome, construction is expected to begin later in 1994.

PROGRAMS FOCUSED ON WOOD PRODUCTS GENERALLY

GOVERNMENT

Cooperative Extension Service

An Extension Specialist at the Cooperative Extension Service serves wood products firms in technical areas of wood processing technology and systems. He may conduct site visits on a consulting basis, devoting between a day and a week to each problem. He is able to make roughly 25 such contacts each year. This work covers many different products, and several related machining processes. The work may simply involve helping a firm optimize the use of established equipment, or it may entail technology transfer in the sense of suggesting improvements using new methods or equipment.

In addition, for more than two decades the University has conducted an annual kiln drying workshop.

Professional Development Program, College of Natural Resources, Forestry & Agriculture

This program conducts professional development sessions on a number of topics including wood products marketing, that are relevant to the wood industry, though its primary focus is on forestry and forest management.

NEPEX

The Northern New England Product Development and Marketing Centers (NEPEX) has two major components, one for wood products and the other for food products. NEPEX is an international trade development center serving the Maine, New Hampshire & Vermont region. NEPEX is based at the University of Maine in Orono. Currently, NEPEX is staffed by four individuals including a forest products marketing specialist.

The Center's mission is to develop new markets, identify and minimize trade barriers and assist regional industries in developing marketing strategies. Trade lead distribution, market data and trend analysis, export training and assistance, and general marketing assistance for small businesses are some of the services offered by NEPEX.

NEPEX utilizes the staff of forestry and forest products experts at the University of Maine and through a network of forest products specialists in New Hampshire and Vermont. With NEPEX's computerized database of regional forest product producers and interfacing throughout the global marketplace, the Center represents expanded potential markets for its

clients. Programs include: trade lead distribution, market data and trend analysis, export training and assistance, and general marketing assistance for small businesses. Publications include: NEPEX Marketing News (monthly newsletter, free), Maine Forest Products Directory (Buck and Rice, 1993), and Northern New England Forest Products Buyers Directory (Mar. '94).

USDA Forest Service, State & Private Forestry

The USDA Forest Service provides financial and technical support to state forestry agencies through its State and Private Forestry branch. Its mission is not intended to include direct contact with individual mills or landowners, but USFS specialists will assist on mill visits for yield studies or other such activities. At present, a Forest Products Specialist based at Durham, is assisting with the collection of mill data for the RC&D project.

Though its Rural Development program, the USFS provides targeted aid to forest-based economic development efforts. Funding by this program assisted in funding the Greenville wood products and tourism studies, has helped the Penobscot Indian Nation to develop a Land Use Plan, and made a grant to the Bethel Area Chamber of Commerce for a strategic planning process. The program also funded a large program of wood-based business recruitment and assistance in Berlin, NH, from which we in Maine ought to try and learn whatever lessons it offers.

Northeastern Forest Alliance

The NEFA is a coalition of the state forestry agencies of New York, Vermont, New Hampshire, and Maine. Its mission is primarily to promote better forest management and foster improvement in the full range of benefits from the region's forests. The NEFA has sponsored a number of projects that are relevant to secondary wood products. A number of high points:

- A project on red maple utilization has been completed and is in the printing process.
- A project examining treatability of red maple has been funded.
- NEFA has sent representatives to several trade shows overseas, in South Korea, Japan, Spain, and Germany, to seek market opportunities for the region's producers. They were also represented at the Atlanta International Woodworking Show in 1992, through the Greater Adirondack RC&D. They have exhibited at NEWPEX in

Massachusetts and at the Anaheim show. A trade show kit to assist in marketing through trade shows was also developed.

-- NEFA co-sponsored a conference on the barriers and opportunities confronting wood fiber pellet utilization in the region.

-- For 1994, additional trade show visits, further hardwood treating work, and development of a regional primary and secondary manufacturers database are planned.

Maine Forest Service, Utilization and Marketing

The MFS's Utilization and Marketing program collects and publishes data on wood products industry conditions and trends. It also provides on-site technical and marketing assistance for individual firms on request. The program assists in program planning and advice for many other state programs that interact with the forest products sector. It provides assistance at many training courses on logging and wood utilization.

PRIVATE

Northeastern Lumber Manufacturers Association

NELMA is the lumber grading agency for softwood lumber mills in the northeastern states. It also operates an extensive program of training and technology transfer, in a variety of operational and practical areas. Topics include kiln drying, planer mill operation and knife sharpening and maintenance, compressed air, hydraulics, and sawing for grade. At its fall and spring membership meetings, NELMA also offers sessions on issues of interest to management.

Maine Hardwoods Association

This is an informal group of people concerned with growing and manufacturing hardwoods in Maine. Its activities are confined to a few meetings, sponsoring research, and co-sponsorship of seminars. The Association held a symposium on hardwoods in Fall 1993, with a proceedings forthcoming. Birch silviculture is a major interest of this group.

Equipment and Materials Suppliers

Though the level of activity cannot be documented, it is clear that the largest tech transfer program to the wood industry is operated by its material and equipment suppliers (Irland, Jellison, & Murdoch, 1989). Providers of machinery, finishes, adhesives, and specialized

equipment maintain on staff technical representatives and engineers. These experts advise customers and potential customers on the best solutions to new problems. They provide after-purchase service and advice on upgrades. They may also provide considerable advice on safety equipment and on environmental compliance.

This informal tech transfer program is usually the leading source of information about new techniques and products to the industry. Understanding better how it works, and finding improved ways to network with this informal system, might prove to be very rewarding.

"Roll-Your-Own" Tech Transfer

A prominent form of tech transfer is the "roll-your-own" variety, in which mill owners and engineers attend meetings, survey suppliers, and even visit mills of competitors to see how new machines and systems are working. While the occasional mill owner has a virtual Cold War mentality of secrecy about their mill, most of them recognize the mutual benefits of exchanging information and are happy to show other producers how a new idea is working out.

Many wood products mill owners are familiar with machinery and manufacturing processes. Some of them produce important items of equipment or make major modifications in their own shops. These "hands-on" managers rarely use outside professional expertise for anything, unless there is truly no other source of information.

ECONOMIC DEVELOPMENT PROGRAMS

FEDERAL

Small Business Administration

The SBA administers a series of loan programs, funds the SBDC's, and runs the Service Corps of Retired Executives (SCORE) program.

Current lending activity to wood products firms is as follows (latest data):

SBA Loan Portfolio		
	<u>Number of Loans</u>	<u>Dollar Volume</u>
Wood products	30	\$ 9 million
Total, all industries	1,047	\$146 million
Percent Wood	3%	6%

Economic Development Administration

The Economic Development Administration provides funding assistance through several programs that could benefit wood products firms. Generally, it is not involved in direct financing of individual businesses. It supports revolving loan programs at each of four regional Development Commissions (Eastern Maine; Northern Maine; Androscoggin Valley; North Kennebec), which do participate in loans arrangements for wood products firms.

Through its ongoing Technical Assistance program, EDA has supported a number of important feasibility studies, including the Waferboard project (Neill & Gunter Moeltner International, 1987), the North Kennebec RPC's wood products assessment (Irland Group, 1987), and work by the Androscoggin Valley COG. Under its sudden and severe distress program, EDA has funded a number of feasibility studies and economic development assessments. These include the Wood Products diversification work by A. D. Little (1987) for the Millinocket area, and broader local assessments conducted in the Southwest Penobscot County area, and in Waldo and Knox Counties. The local assessments may have had a forest products component. All four of these projects were done by the Eastern Maine Development Corporation.

Small Business Development Centers

The SBDC's operate under a federal contract to deliver business counseling services to interested persons and firms. Services are delivered through 16 local agencies and satellite offices; the overall statewide program is administered by the SBDC located at the University of Southern Maine. There is no information on participation in this service by industry sector.

Farm Credit Banks of New England

The Farm Credit system makes loans secured by land. There are two production credit associations in Maine who administer Farm Credit long-term loans. The Aroostook Association has a small portfolio which is about 10% in forest products. The Southern Maine Association has a \$70 million long-term portfolio which is about 40% in wood products. This amount of about \$30 million is spread among less than 4 dozen loggers, landowners, and sawmill and secondary wood products firms which have timberlands for collateral. Overall, the portfolio in wood products is growing, though with prosperity returning in 1993, some loans were paid down ahead of schedule.

STATE PROGRAMS

Department of Economic and Community Development

The Maine Department of Economic and Community Development is the prime state agency responsible for economic planning and development activities. A variety of programs and services are provided to existing and start-up businesses, such as business answers hot-line, and professional counselors services.

a) Community Development Block Grants (CDBG)

Under the CDBG program, grants for infrastructure and lending programs for small businesses are potentially available to wood products firms. The program works through municipalities which actually administer the loans. The program does not track lending activity by industry, so there is no database to enable us to determine wood industry participation in this program. At present, some 40 loans are active, and some of these are in the wood products sector. A detailed Annual Statement (Office of Community Development, 1994) provides a thorough summary of program requirements and activity.

b) Job Opportunity Zone (JOZ) Program

The JOZ program has now ended. Two evaluation reports on JOZ have been done. They were submitted to Governor and Legislature under the JOZ Board (Market Decisions, Inc., 1991; Reeder, 1992).

Two JOZ program components were: a) job grants to specific firms, which might have included wood products companies; and b) capacity building support in the four Zones, which would generally help all industry sectors, including wood products.

c) Maine Products Marketing Program

The Maine Products Marketing program originated in an effort to develop a wholesalers' catalog to support marketing of Maine products by small gift and craft firms. This catalog has been a major success, and is now being reprinted (MPMP, 1994). The program also maintains a Buyers' Guide with 16,000 leading retailers included.

This program has also, managed a program of "scholarships" which cost-shared attendance at the High Point Furniture Show by several Maine firms. Since funding has run out, several of the participating firms have continued to participate on their own. This provides strong evidence of the value of the effort.

d) Business Visitation Program

A new program, the Business Visitation Program offers an effective way to directly reach wood products firms to determine their needs and interests in publicly provided services. The program is currently under way in several pilot communities and is being actively promoted to reach interested communities with in-place economic development programs.

FAME

FAME operates a number of financing programs:

a) Loan Guarantee Program - available to wood products firms.

Current portfolio contains: all wood products firms, 33 loans to 26 companies, \$13,748,700 total value, with \$8,481,000 of FAME exposure; secondary wood products firms, 14 loans to 10 companies, \$6,682,000 of value, with \$5,056,000 of FAME exposure.

b) Interest Rate Reduction Program - available to the industry.

One secondary wood products firm enrolled in a 2% interest reduction program.

Fame accounts have an average 5-year life, and a 20% turnover rate. The portfolio has tripled in the last year and a half, and continues to grow. They have not witnessed a slow down, but expect a leveling off.

Special Tax Breaks

The State Legislature from time to time makes available special income tax breaks for individual firms, though legislators do not particularly like this to be widely known. Lists of such firms can be obtained, but we have not examined them for this study. Few would disagree, however, that this is probably the least desirable means of assisting businesses in our repertoire.

Occupational Safety and Health Administration Training

There is no summary of participants by industry in OSHA training programs, but wood products firms do participate.

Maine Bureau of Labor Education

The University's Bureau of Labor Education conducts a variety of training and educational programs for workers and supervisors. Safety is a longstanding interest of the program. The Bureau reaches about 800-1,200 people each year with training on hazard identification and abatement. The Bureau cooperates with unions, with individual firms to deliver its services.

INTERGOVERNMENTAL

Maine Rural Development Council

The Maine Rural Development Council was founded in 1991 to serve as a coordinating body for state and federal agencies and programs for rural areas. According to a GAO report, there are 88 major federal programs affecting rural areas, and there are many more state, local, and nonprofit efforts. The MRDC attempts to foster better cooperation and communication in this field, both between Washington and Maine and within Maine (Buxbaum and Ho, 1993).

PRIVATE

Maine has several agencies that represent private public partnerships, with some public funding. These can be considered private efforts for present purposes, even though they may have some public funding or may provide services under public contracts.

Maine World Trade Association

The MWTA has assisted many wood products firms over the years. It maintains a technical library of information about exporting, and has the capacity to find answers to practical business questions. It has conducted trade missions at times in the past, when funding permitted. MWTA responded to 375 information requests in 1992, many of them from wood products firms. Its training sessions convey trade and business information that is often of interest to wood products firms. These sessions reached 400-600 people in 1993.

Maine Development Foundation

The MDF is a private public partnership aimed at improving Maine's economy. It undertakes special research and educational projects and in the past has administered programs such as the potato sheds, the feasibility work for Searsport, and the SBA 501 program for the "rest of state" area.

MDF has assisted by conducting a number of major development strategy studies including the Technology Strategy project and the McKernan administration's economic development strategy. MDF played a role in developing the paper products value added study in 1982 and conducted the 1990 Value Added study for the DECD. Except for occasional specific projects, the MDF does not target programs at individual firms or industries.

Maine Science and Technology Foundation

The Foundation's predecessor agency (MSTC) supported a brief assessment of technology and technology transfer needs in the wood products industry, conducted through the University (Irland, Jellison, and Murdoch, 1989). The agency has not had any recent activity specifically focused on wood products, but it remains interested in the field.

Coastal Enterprises, Inc.

CEI operates a number of programs to support microbusinesses and entrepreneurs in the Midcoast area. It provides one-on-one counseling, training sessions, and financing assistance.

CEI has often assisted wood products firms. CEI operates the local delivery of SBDC services in its area.

Central Maine Power Company

CMP no longer employs an economic development specialist. But since power access is a significant concern in many rural areas, local CMP officials are often key negotiators in putting together development projects.

CMP provides advice on energy generation and conservation directly through informal site visits to industrial customers. It also offers formal energy audits. Through Demand Side Management (DSM) subcontractors, it offers an incentive of one cent per kwh for up to ten years to firms installing approved efficiency improvements.

North Atlantic Capital Corporation

This is a venture capital firm that originated in the establishment of the Maine Capital Corporation to foster equity investments in Maine businesses. North Atlantic functions as a venture capital firm. The firm now manages about \$25 million in capital (North Atlantic Capital, n.d.) It has looked at a few wood products situations. But with their mature markets and technologies, wood products firms rarely offer the growth outlook and the "exit" opportunities that are required for successful venture capital investing.

REGULATORY AND OTHER FACILITATION

Businesses seeking to expand or to locate in Maine (or any other state) face a complex web of regulatory, land use, local supplier relationships, financial issues, infrastructure needs, power supply, and other issues. Untangling these can take a good deal of time, and unexpected bogies can arise at any time that can kill a project.

Most economic development professionals spend a good deal of their time dealing with these issues on behalf of expansion or relocation candidates, and not on out-of-state recruiting, building industrial parks, or other routine tasks of development agencies. Considering the small size of many wood products firms, the availability of facilitating services such as these can be extremely important. In addition, availability of such services conveys a community or region's strong interest in making the development happen.

We think this is an extremely important area, but have not been able to seek data on the level of activity in relation to the wood products industry.

RESEARCH AND ASSESSMENT PROJECTS

A number of individual projects have been conducted over the years to identify new markets, assess individual business opportunities, or disseminate information about industry issues or new technologies. These projects have been conducted by a variety of agencies, for various purposes. Some have been mentioned elsewhere in this paper. These can be grouped by broad themes.

RESOURCE SUPPLY AND DEMAND ASSESSMENTS

The recent release of a mid-cycle forest survey showing declines in both softwood and hardwood growing stock focused attention on this issue (Anon., 1988; Anon., 1993). Understanding supply and demand trends is critical to planning for wood processing businesses. While most secondary processors are small, and many import raw material from other states, they are still affected by these conditions. Maine has been unusually active in this respect, motivated by the long recognized downtrend in spruce-fir inventory (Joseph, Irland, and Howard, 1980; J. W. Sewall Co., 1983; Young, 1984; Seymour and Lemin, 1989). Analyses of demand trends are also helpful to both policymakers and to businesses (e. g. RISI, 1987; SIAR 1976).

A more focused assessment was done by the USFS in response to the importance of the turnery industry in Maine (Wharton, Nevel, and Powell, 1987). Assessments of this kind have been made a good deal easier by advances in the geo-coding, storage, and retrieval of forest inventory data (Hansen, et al. 1992).

MARKET STUDIES AND INFORMATION

Information on market conditions and trends can be widely useful to small businesses, since it is so costly for them to obtain such information themselves. Not all primary or even secondary producers are intensely market-oriented, owing to the commodity or quasi-commodity nature of their businesses. But there are many examples suggesting that an important key to business and employment growth is aggressive and successful marketing.

Marketing assessments of various degrees of detail have been conducted, and training courses in market trends have been offered by the UM Professional Development Program

and others. A useful example is NEFA's 1989 survey of export opportunities and industry perceptions on exporting.

GENERAL INDUSTRY REVIEWS

Various agencies have provided reviews of industry structure, trends, and conditions that may be of use to established firms in business planning, or to relocation candidates. Examples include Colgan, Irland, and Benson, 1986; Donovan, 1993; Irland, O'Hara, Murdoch, and King, 1991; Irland Group, 1987; Maine Tomorrow, 1985).

PLANT FEASIBILITY STUDIES

Several feasibility studies of individual plants at particular sites have been done (A. D. Little, 1987; Enterprise Resources, 1992; Neil Gunter Moeltner, 1987). It has been unusual for these to lead directly plant investments, even though the evaluations are often favorable. The Greenville project looks to be an exception. Clearly, one important question is whether the study receives sustained follow through, as gaining results can take years. Whether the studies yield immediate investment results or not, they often contain useful information that comes into the public domain and can be used by other firms or by economic development planners.

TECHNOLOGY ASSESSMENTS

There is a shared social benefit from efforts to make mills aware of improved technologies more rapidly and in more detail. The spread of improved equipment, manufacturing systems, and environmental control technologies has been a theme of Cooperative Extension and other programs for many decades. Efforts to identify technology needs have been funded by the Maine Science and Technology Commission, and are a theme in the current effort by the RC&D's to develop a secondary producers' directory.

REGULAR PROGRAMS OF MARKET INFORMATION AND DATA

The regular supply of information on markets can be a useful public program. While secondary processors may not need log and stumpage prices as much as others do, many are

log buyers as they saw some or all of their own lumber. Helping markets work by supplying such information is a basic public function whose value cannot be overemphasized.

Data on import and export trends is easily obtainable but is not delivered in effective form to potential users in the industry. The loss of the MFS processor newsletter eliminated one potential communication channel, but the letter is being revived by NEPEX.

THE PROBLEM OF FORM AND AVAILABILITY OF INFORMATION

The abundant technological, market, business skill training, and business trend information that is available is not being effectively marshaled and delivered to potential users in the wood products field. The abundance and diversity of this information makes it difficult for small firms to locate and monitor what they need. The key is in finding ways to sort the information and route it to those needing it. Also, choosing the most effective mode of delivery is difficult. This is the universal experience of those attempting to meet these needs, whether in the private or the public sectors. There has been no solution to this dilemma.

ASSESSMENT

There is no good analytical base for assessing economic development programs for effectiveness in creating or retaining jobs, though evaluations of particular programs in Maine have been done (e.g., Market Decisions, 1991; Wilson, 1989). Therefore, it is necessary to rely on judgment, and opinion in evaluating the success and effectiveness of programs listed in this paper.

In contrast to some other states, Maine does not rely on heavy front-end subsidies for new plants. But at times, aggressive local economic development offices have been able to leverage public and private dollars into major developments. Thus far, wood products activities have not been featured in such projects. One important regional success story, the creation of a wood-based electric generating industry in Maine and New Hampshire, was due to public utility regulation and federal laws (Irland and Colgan, 1986; Connors, unpubl., 1993; Resource Policy Center, 1986). Probably more jobs and economic activity were created through this effort than any other economic development program related to wood. Since it is difficult to draw general conclusions from these cases, they have not been considered in this report.

EVALUATING ECONOMIC DEVELOPMENT PROGRAMS

Evaluating the success of economic development programs is difficult, and available results are often ambiguous. Diligent searches have failed to find unambiguous evidence for the cost-effectiveness of some widely used development tools (see, e.g., Bartik, 1991; Wilson, 1989). Some reasons why determining effectiveness is difficult include:

- In many development situations, a number of programs are involved; it is hard to determine which, if any of them, were critical to success.
- Economic development is like managing an investment portfolio with high risks. It is understood at the outset that many investments will not be successful.
- Development programs take time to have results; successes may be delayed by other problems or by market downturns.
- Few programs maintain records of clients served by detailed industry.

- Many programs were designed to fit manufacturing needs, while the major growth in employment has been seen in the service sector.
- It is difficult to quantify the needs.
- Participants are likely to claim success in order to perpetuate programs and jobs. To conduct a proper evaluation of even a single development program requires a detailed study of program data and thorough reviews of each individual client situation. Such evaluations, even at a preliminary level, can cost upwards of \$7,500 to \$10,000 each. Such detailed reviews could not be conducted within the budget and schedule for preparing this paper.

Yet there is an abundant literature on economic development programs from which we can draw useful general lessons. Probably the most important issue is not to evaluate individual programs as being successes or failures, but to better institutionalize the ability to learn from practical experience (Anon., 1993a; Northeast Center for Rural Development, n.d.). This is a role the Rural Development Council can play.

Nature of Problems to be Addressed

The basic goal being addressed by all of these programs is essentially the same: to maintain and enhance economic activity and employment levels in rural areas (Anon., 1993; Northeast Center for Rural Development, n.d.).

PROGRAM OBJECTIVES

The specific operational objectives of the programs reviewed here are diverse. They depend on the type of program, its intended clientele, and its method of dealing with the identified problem. Multiple goals often make evaluation difficult.

Barriers Encountered

Barriers to effectiveness of programs can take many forms. Some of them, such as funding levels or legal limitations on programs, may be difficult to change. But with a full evaluation, it is possible to develop a listing of improvements for any program, as has been done, for example, for the Maine JOZ program (Market Decisions, 1991) and for an array of other programs (Rural Revitalization TF, 1989; US GAO, 1989, 1992; Anon. 1992).

IMPLEMENTATION -- THE IMPORTANCE OF FACILITATION

It is a standard comment in this field that programs, laws, and agencies are uncoordinated. From the Maine perspective, the problem is more apparent than real. The community of developers is small, and an energetic community or regional team is able to "package" the necessary funds, programs, and services fairly successfully. There is little that we in Maine can do about real or imaginary coordination issues in Washington. But Maine development offices and agencies have shown an ability to work together to overcome obstacles, including those thrown in the way by Washington regulations or legal shortcomings.

The most important point for Maine today is that determined communities, companies, and groups of people, by employing the full range of available programs and services, can effectively work around the limitations of individual programs. The availability of a range of programs helps overcome shortcomings of any one of them. The Greenville experience is one example of this.

The availability of this facilitation needs to be marketed, just as industrial parks and other facilities need to be marketed. Clearly, without the capacity for coordination and facilitation, the mere existence of an array of programs is not sufficient.

MAINE PROGRAMS: EVALUATION OVERVIEW

Following the framework provided in Table 3 above, the evaluation of Maine programs provides lessons and perspectives in the functional areas covered in this assessment.

Individual Skill Building

Assistance in individual skillbuilding is available in a number of forms in Maine, primarily consisting of one-on-one counseling, but also including telephone inquiries and site visits by experts. These are an economical method of getting information to those in need, but with existing resources they are reaching relatively few firms or potential entrepreneurs. These programs are most effective for clients who clearly recognize their need, and whose need is highly focused. For many firms, neither condition applies.

Technical Assistance and Transfer

The technical assistance effort at present seems to be dominated by private sector activity, primarily consisting of visits by machinery and materials suppliers and trade associations,

supplemented by news items and ads in trade journals. Firms take an interest in tech transfer when a very specific need arises, but do not generally collect information when there is no specific need.

The public tech transfer program serves only a few clients because of the small staff and funding availability. While the services could be more aggressively marketed, this might just create larger backlogs in the absence of a way to respond to more inquiries.

Those who have been active in training and outreach with marketing and technical information report that gathering audiences for meetings is very difficult. It must be said that despite all of the modern tools available, we have not yet found the best ways to get technical information to those in need of it.

Resource Supply and Demand Assessment

There is little question that ongoing supply and demand assessments are important to the industry, though often in indirect ways. With the mid-cycle survey of timber resources confirming the expected reduction in inventory, with growing export markets, and with the many weaknesses in existing information, further efforts in this area are very important. In particular, the analysis and interpretation of the data from the upcoming federal Forest Survey of Maine will be extremely important.

Training Programs

Training programs on the classic model have been directed at a number of groups within the forestry sector, although relatively few have focused exclusively on secondary wood products. There is little question as to the value of training, but, as noted above, the best means for delivering it have proven elusive.

Development Facilitation

As noted above, having the capability to provide assistance in navigating the regulatory jungle and in packaging multiple sources of assistance is critical. Most Maine communities can provide access to assistance in economic development, and regulatory review.

Market Information

Information on new and changing markets, including price trends, can be very helpful to firms making business plans and examining new initiatives. Especially for small or growing firms, obtaining market information can be difficult. Much of this need is met through

business counseling and tech transfer contacts, when requested. Considering the highly diverse nature of the secondary products field, and the lack of available data, it is difficult to visualize a single information service that would meet the needs of this field. Yet some means of better directing available information to those who need it is surely worth exploring.

Financial Assistance

It is legendary that many small businesses are started by entrepreneurs with a pocketful of Mastercharge cards. Lack of financing is a regularly stated obstacle to development. Yet it is also true that many firms lack the information, skills, and knowledge to obtain financing from available commercial sources. Also, it is not widely understood that providing equity financing for new startups is not the normal function of banks.

Efforts by a range of public agencies to provide capital to companies have had a mixed record. Clients of public programs are likely to be more risky and to be experiencing multiple problems. So defining reasonable expectations for success is difficult. Often, the financing needed is for infrastructure or similar support and not for the firm's own capital. Generally, we can expect that public financing programs will be most successful when they are combined with careful loan underwriting, significant cash infusions by the private participants, and the needed additional services for technology and marketing.

Infrastructure Provision

Frequently, lack of suitable infrastructure is a barrier to economic development. Yet, the mindless construction of industrial parks or spec buildings in advance of a specific need has been largely discredited. What is most important is to maintain the capability to respond quickly to newly arising needs and to bring in infrastructure funding where and when it is needed. The grant-writing and review cycles in many programs, however, can make it difficult to respond as quickly as may be needed.

IMPLICATIONS FOR FUTURE PROGRAMS

Since we have no firm evidence on which to rate the effectiveness or cost-effectiveness of different programs, we cannot say which ought to be expanded and which ought to be de-emphasized. It seems clear to us, however, that each type of program has a role to play in an active development effort. This argues for maintaining a flexible capability in all areas,

together with an alert network of groups capable of development facilitation and "packaging" to help deals move forward.

Our experience also argues for improved efforts to market development capabilities more effectively to their potential beneficiaries. The secondary manufacturer directory now being compiled creates a unique tool for this purpose. Further, effective development efforts are resourceful in mobilizing the existing private delivery system for financing, technology transfer, training, and other needed program components.

Osborne's suggestions deserve serious consideration, and his book is well worth reading (Table 4).

Table 4
Osborne's Recommendations for Development Programs

1. Governments are most successful when they take time to analyze the economy before acting.
2. Wholesaling--changing the way the market works--has far more impact than retailing.
3. Economic and social problems are two sides of the same coin.
4. Intelligent development strategies invest, rather than spend.
5. Effective development efforts build the capacity of local institutions and actors.
6. Development systems work best when they are comprehensive but decentralized.
7. Economic development programs need to be constructed on an appropriate scale.
8. The best economic development systems operate with long-term perspectives.
9. To remain effective, development programs need market feedback mechanisms.

Osborne's recommendations are roughly consistent with Maine's experiences. They should provide a focal point for further discussion in the state's economic development community.

SUGGESTED DEVELOPMENT PROJECTS

This is a short list of projects that would be useful in fostering wood based economic development.

1. Interview Private Tech Transfer Providers

A brief interview study with these providers would likely turn up some useful suggestions for public roles in this area.

2. Case Studies of Successful Programs Out of State

It is extremely difficult to gain a deep enough knowledge of efforts outside of Maine to know whether they are worth trying here. A mechanism for conducting and publishing short, user-oriented case studies would be most valuable. These case studies could then be used to guide new program initiatives. Some of the programs mentioned in the Summers speech at Bethel would be a good place to start.

3. Publicize RDC Service Provider List

Several industry attendees at Bethel mentioned that they had been unaware of how much help is available. The RDC listing should be distributed to all firms in the new Primary and Secondary Directory, as well as to a large sample of bankers around the state.

4. Develop a List of Free Information

There is a lot of free information available. Newsletters by the Forest Products Lab and by private companies and associations, controlled circulation trade publications, and bulletin series by public research agencies supply a lot of information.

Circulating this list by mail, through Extension, and at meetings might encourage people to get on subscription lists themselves.

5. Tech Transfer Accessions List

Provide a quarterly information accessions list giving title and source for new publications relevant to Maine wood products firms. This could be generated by NEPEX from the library

information system and from its own tracking of information. A mailing list for this list would provide a simple way to see that potential users find out about information. Possibly a separate sheet for each of several categories, like marketing, finishing, machining, and drying, could be developed.

6. Continue to Pursue Networks

Continue pursuing networks, by trying to identify opportunities for small groups of firms to cooperate effectively. The effort should aim at identifying and meeting a need, not at just setting up a network. Given the complexity and fragmentation of the secondary wood products field, there are many stones that will need to be turned over to carry this out. Initial observations (Irland, 1993) suggest that networks succeed when they emerge from very specific gains from cooperation among a small number of firms.

7. Short Courses in "DIY Marketing"

There are many things a firm can do to obtain marketing information for its products. Training in the needed skills and information sources should be offered.

8. Directories of Buyers in Major Urban Areas

Most Maine secondary products firms are small, and they often serve regional or local markets. Directories of potential buyers for nearby major metropolitan areas could be very useful to such firms.

9. Assess Safety and Environmental Needs

For small firms, dealing with safety and environmental problems can be costly and frustrating. An assessment of the industry's needs and concerns in these fields could lead to many useful ideas for research, tech transfer, and other development assistance.

10. Directory of Safety and Industrial Hygiene Specialists/Organizations

A directory of experts in the major areas of safety and industrial hygiene that are applicable to the secondary wood products industry would be useful. Primary users of such a

directory would be the business counselling, regulatory, and tech transfer community, but its availability should be advertised in newsletters and trade publications.

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