

MANUFACTURING

Manufacturing is a small but rapidly growing sector of the territorial economy. There are about 100 businesses and 400 people employed in manufacturing

1. OVERVIEW

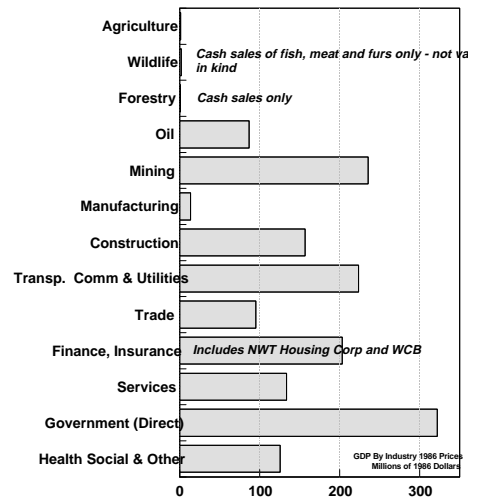
Manufacturing involves the transformation of one or more materials into a new product. The process may start with raw materials such as logs to turn them into lumber or may involve adding value to other manufactured goods such as using canvas to manufacture tents. Manufacturing is important to the economy in that it employs local residents in the production of goods for sale locally or for export.

1.1 GLOBAL TRENDS

Global trade in manufactured goods amounts to hundreds of billions of dollars annually. Many products such as apparel and textiles, bicycles and sporting goods are manufactured in third world countries under contract. In other areas, such as furniture, trade is largely between developed nations or national trading blocks. Major appliances are largely manufactured in developed nations.

In the last decade there has been a distinct movement in manufacturing towards plant globalization. This is evidenced by manufacturing operations moving to locations which best meet specific needs and provide a competitive advantage. One example of this is found in the Japanese automobile industry, which has invested heavily in both the USA

THE ECONOMY



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and Canada.

Another phenomenon has been the relocation to low-wage countries. Low-technology manufacturing, like textiles and the garment industry have tended to relocate to low-wage, low-cost jurisdictions such as Asia and Latin America.

Over the past decade, almost every province in Canada and every state in the United States of America (USA) has introduced investment incentive policies. Most provinces and states have created quasi-independent economic development agencies, some with significant powers, and staffed with business-minded executives charged with both attracting and retaining businesses in their jurisdictions.

In fact, many enterprises looking for new places to invest now consider incentives as part of the decision-making process. According to a KPMG Peat Marwick survey of executives at 203 large corporations, 73 percent said that state and local governments are more likely to offer tax incentives now than five years ago. More than half - 59 percent - said that they were currently receiving property tax rebates and 48 percent received income or franchise tax credits.

While most of the attention has focused on attraction packages, a growing number of provinces and states have also introduced "retention" packages to encourage local firms to stay and invest within their jurisdiction. States, in fact, are augmenting their standard roster of incentives - tax credits for new jobs created, property-tax abatements, grants for infrastructure improvements - with programs designed specifically for local businesses.

For both attracting and retaining businesses, governments are also examining new incentives or streamlining environmental-per-

mitting processes.

1.2 CANADIAN SITUATION

Manufacturing in Canada is concentrated in central Canada, primarily Ontario, which accounts for about 1/2 of all Canadian manufacturing activity. Overall, manufacturing has been declining since 1990, with most of this decline coming from the primary metals group (mostly steel manufacturing and smelting). Other components of the industry have performed relatively well. Employment in the industry was 2,078,000 in 1996.

Although future job growth is expected to be small, manufacturing output is expected to surpass national growth rates.

Within Canada, each province has a variety of incentives or other means to attract or retain investment, in spite of an Internal Trade Agreement signed in 1994 by the federal government, the provinces, and territories.

2. THE NWT INDUSTRY TODAY

Local manufacturing can supply products developed in the north for northern conditions and tastes. Manufacturing can reduce our reliance on imported goods, thereby improving our balance of trade with the rest of Canada. This also keeps jobs and opportunities within the NWT. A viable manufacturing sector will also provide new and rewarding employment and experience for northern residents, and through re-spending will create additional employment in the service sector.

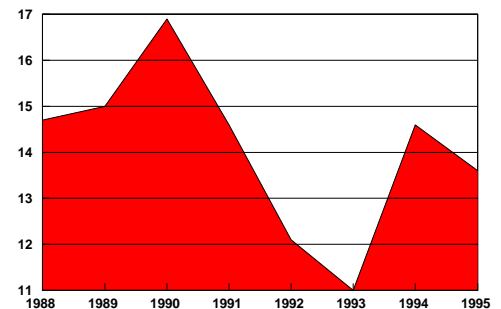
Manufacturing in the NWT is a diverse industry. Output fluctuated widely between 1988 and 1995, as shown in the chart at right. In employment terms, the 1991 census indicated that 380 individuals, or 1.4% of the total workforce, worked in manufacturing businesses. A 1996 business listing shows that 94 businesses were primarily engaged in

manufacturing. These businesses are involved in everything from:

- lumber milling, doors, windows, water tanks, cabinets, logs and other home products;
- boxes, pallets, stakes, core boxes, timbers and other material for the mineral industry;
- printing, silk screening, and publishing;
- bottling, baking, canning and meat processing;
- custom furniture;
- boat building, engine rebuilding, komatiks, sleds, trailers and upholstery;
- metal, wood and plastic signs;
- canvas goods, bags, tents, clothes, jewelry, leather, shoes, tanned furs, clothing;
- redi-mix concrete, trusses, sheds, planters, and related construction material;
- crafts manufacture, including pottery;

Manufacturing businesses do not necessarily require large scale plants. In fact,

Gross Domestic Product by Industry at 1986 Prices - Manufacturing



Statistics Quarterly, March, 1997

Manufacturing output in the NWT fluctuates widely because of the relative importance of individual producers in some areas. The overall trend shows output has dropped overall since 1988. Manufacturing is an essential component in the economic development and stability of the NWT. Home-grown manufacturing, through exports, can provide capital inflows to the territories. It can supply products to Northerners, replacing imported goods and reducing NWT reliance on southern produced goods.



manufacturing businesses can be quite small. For example, a part-time wood working shop may only manufacture 3 or 4 desks a year. Manufacturing can also be part of a larger business operation, such as a lumber yard whose shop manufactures core boxes for the mining industry.

The ability to begin at a small scale has allowed northern manufacturing to develop to the extent it has.

3. INGREDIENTS FOR SUCCESS

This sector, like others being reviewed within the GNWT economic framework, will be examined in terms of six key ingredients for success:

- resources
- human Resources
- capital and investment
- infrastructure
- markets
- regulations and Taxation

By identifying opportunities and constraints for each of these ingredients and developing a common understanding of the sector, government, industry, and communities can work toward addressing key factors, which may facilitate the development of the sector.

3.1 RESOURCES

The NWT is huge, 3.4 million square kilometers, and includes 17 distinct geological areas. This ensures a rich and varied inventory of natural resources.

Aside from mineral resources we have 20% of Canada's forested lands, 23% of which has commercial value. There are significant marine and freshwater fish reserves, and the NWT is a major producer of wild furs.

Even though raw materials may be available, it is not necessarily viable to process them

in the north because of economies of scale.

Not all manufacturing requires unprocessed materials. For example, the manufacture of windows involves importing casings and sealed windows for local assembly. This adds considerable value to those products

Because the NWT economy is not well integrated, many such materials used in manufacturing must be imported, but provide a means to add local value.

3.2 HUMAN RESOURCES

High costs of labour and other manufacturing costs, combined with a low skilled labour force are a problem for NWT manufacturers.

Skills required in the industry vary considerably. Many jobs are associated with trades like electrical or welding. Some skills involve formal artistic skills, such as design or layout, while others involve craftsmanship such as that used in snowshoe making. Depending on the size of the manufacturing business, some of the personnel required may be either hired or contracted. For example, a larger sawmill may have its own electrician on staff, while a small community operation may have to contract electrical services.

Another issue, common to other businesses aside from manufacturing, is that while training increases productivity, it also involves considerable expense and time. Business volumes and steady production have to be present to support this type of investment. Once someone is trained, workers will not likely stay if there are long gaps in employment as a result of short production runs.

3.3 CAPITAL AND INVESTMENT

Financing is critical to the development of any business. The type of assistance required by manufacturing firms varies, but may

include:

- long term loans;
- expansion or development financing
- import/Export financing
- prototype development and testing
- working capital
- equity

Financial assistance is available from the private and public sectors for manufacturing businesses in the NWT. Contribution assistance is available through the GNWT Business Development Fund to provide modest assistance with "start - up" costs. This program acts to lower capital costs, thus helping to place NWT businesses on a more equal footing with southern counterparts. It can also be used to offset some of the added planning costs faced by communities outside the major centres of the NWT.

Loans are also available from the Business Credit Corporation when normal bank financing is not available. In addition, if a business needs equity assistance, the NWT Development Corporation has the authority to invest in such a business as a minority shareholder. The Development Corporation

also own several production facilities in smaller communities for the purpose of job creation. These investments were made where the private sector was not able to provide the funding.

Lowering operating costs through changes to regulations, fees, or greater certainty regarding markets, also make private sector financing more attractive.

3.4 INFRASTRUCTURE

There are a variety of manufacturing business. Some are capital intensive, while others are labour intensive. Some need lots of energy, while others need very little.

From a developmental perspective, public infrastructure has a role to play in supporting:

- access to commercial land for development of facilities under secure conditions.
- access to electrical power at competitive rates;
- facilities for transportation - highways, docks, access roads and airports.
- public communications utilities such as phone systems and internet access.



A small community sawmill for manufacturing lumber.

This infrastructure is available to varying degrees and costs depending on the region and community in which a business is located. The costs involved will influence the type and size of manufacturing facility that can be developed for any specific location or opportunity.

3.5 MARKETS

On the national scene, the NWT is a very small player in manufacturing, with our share of the Canadian manufacturing pie being well under 1%. Individual plants in the NWT also remain very small scale and will likely remain so in the future. While we have significant opportunities for growth, most of these are currently closely associated with meeting the needs of local, limited markets.

The low volumes associated with limited markets also mean that the manufacturer may be overly dependent on a single buyer. A manufacturer of water holding tanks, for example, may have to sell 75% of his/her production to the NWT Housing Corporation. If the Housing Corporation shifts to a different supplier, or simply builds fewer houses, the

manufacturer may be put out of business. Another issue is that one buyer may require the delivery of an entire order for the year at one time in order to meet a sea-lift deadline. If the manufacturer is given short notice, they must gear up for extensive production but then may have a long period with no sales, limited production, and layoffs of trained staff.

A major marketing issue is promotion in that the general public or other institutional buyers such as community governments may not be aware of Northern products because they are outside normal distribution channels. Manufacturers may not have the capacity, or see the need, to advertise widely if current production is for a specific client.

Based on the results of a number of tourism surveys, there seems to be a market for locally-produced crafts and related material unique to the NWT. Most tourists looking for this type of gift or memento of the NWT are willing to spend between \$60 and \$100. Given this relatively low retail value, this type of product would have to be at least partially



manufactured. Examples of the types of products might include pottery, cards, partly-manufactured crafts and similar items. A logical first step would be to undertake a market survey of the demand for these types of products.

There may be opportunities to develop products for similar specific markets. These should be evaluated in detail with respect to product, place, price and promotion.

3.6 REGULATIONS AND TAXATION

Manufacturers have indicated Workers' Compensation rates charged manufacturing companies are very high compared to other businesses. Given that labour can be the major component of a given product, the problem is significant to a number of manufacturers.

Concerns have also been expressed about the duplication of authorities between different levels of government and excessive paperwork. No specific existing regulations and tax measures have been cited or identified by NWT manufacturers as being particularly detrimental to the sector.

Other issues relate to general business concerns over regulation and the regulatory environment. In general, the business community here and in Canada have indicated that regulations have become too complex. Many businesses, especially smaller businesses that cannot afford professional assistance, spend much of their creative energy dealing with complicated rules. Although we have no direct statistics on the NWT, a recent survey by the Canadian Federation of Independent Businesses found that 70% of small businesses thought government paperwork is a significant

problem. Clear and simple rules, as well as minimum requirements for the time to be spent on paperwork, usually frees up businesses to do what they generally do better than other organizations - creating wealth and employment.

The GNWT Business Incentive Policy (BIP) is in place to encourage local business by providing a preference to Northern bidders. Northern manufacturers may not be adequately covered by the current policy, in that a northern supplier could receive the same preference as a northern manufacturer. The inequity is that the northern supplier could receive the same preference for supplying a Southern product as the northern manufacturer, who produced the product locally. A companion manufacturing directive has been proposed by the GNWT to address this problem.

The federal government, provinces, and territories signed an Internal Trade Agreement in 1994 to attempt to reduce artificial trade barriers between jurisdictions. The BIP was specifically exempt in the agreement as it was deemed to be a regional development tool required to address our high unemployment rates.

4. CONCLUSIONS

The NWT cannot offer many of the competitive advantages, such as low wages, transportation, operating costs, or sufficient market that would attract large manufacturing investment. However, potential does exist. To start with, the industry will benefit from new investment in the resource sectors, which have specific needs that can be filled through local manufacture.

In addition, opportunities still exist for small-scale manufacturing targeting the unique needs of northern markets. Although the GNWT has BIP, and a Manufacturing Incentive has been proposed, the NWT will only be competitive in a relatively narrow range of products.

The training issues associated with the industry are varied, ranging from technical trades to artisans. Some training will be on the job.

As with most businesses, good infrastructure can act to lower operating costs by reducing the time needed to store inventory and by reducing costs to manufacture and market products.

Marketing and product development are the major issues facing manufacturing development in the NWT. There are 4 major market areas, "government"; "mining/exploration", private sector businesses, and "consumers". No segment may be fully aware of the range of Northern products available or how competitive those products may be compared to imports. Increased marketing effort would help raise awareness.

Measures have been implemented in other jurisdictions to recognize the benefits of the manufacturing sector. While the role of government in the economy has been shrinking over the past 10 years, it remains one of the NWT's largest sectors. In the past, Northern manufactured products received no special preference over imported goods. The preference was applied to the supplier, rather than the place of manufacture. Proposed revisions to the government's BIP would address this issue. The added impact of manufacturing on the economy will be

recognized, and products manufactured within the NWT, whether purchased directly from the manufacturer or retailer, would be given added preference over imported goods.

It is expected that future growth within the economy will heavily depend upon mineral development. If there is an expansion of mineral development and investment in the NWT, there may be new opportunities to expand manufacturing.

The NWT Development Corporation operates a number of manufacturing facilities in the NWT, including the Fort MacPherson Canvas Shop, the Fort Resolution Sawmill and the Pangnirtung Fish Plant. Where job creation costs are reasonable, the Development Corporation will continue to operate, maintain and develop these types of facilities in the less-developed and more remote communities throughout the NWT because of the employment benefits created.