



## Chapter 1: Industry Definition Wood Product Manufacturing (NAICS 321)

The Canadian manufacturing industries on this site are classified according to the 1997 Canadian Implementation of the *North American Industry Classification System (NAICS)*. *Statistics Canada* maintains this standard classification which has superseded the *1980 Standard Industrial Classification (SIC)* previously used.

This section outlines the NAICS Canada 1997 definition of the subsector, the manufacturing activities it specifically excludes as well as its position in the NAICS hierarchy with links to definitions at other levels.

Statistical data for manufacturing industries are collected by surveys at the establishment level and added together. Manufacturing must be the **primary activity** of the establishment in order for it to be counted in the industry totals.

### Definition of the Subsector

This subsector comprises establishments primarily engaged in manufacturing products from wood.

There are three industry groups in this subsector, comprising establishments engaged in

- sawing logs into lumber and similar products, or preserving these products;
- making products that improve the natural characteristics of wood, by making veneers, plywood, reconstituted wood panel products or engineered wood assemblies;
- and making a diverse range of wood products, such as millwork.

**Note:**

- *Statistics Canada* offers the [NAICS Canada](#) manual in full on its web site.
- Only a few minor changes have occurred in **NAICS Canada** since its inception in 1997. For the **Manufacturing Sector** only changes in some of the *activities* listed as a bulleted items for industries and national industries have been made.

### Exclusions

Establishments **primarily engaged** in:

- logging; and chipping logs in the field (**NAICS 113, Forestry and Logging**);
- manufacturing wood pulp, paper and paper products (**NAICS 322, Paper Manufacturing**);
- manufacturing wood kitchen cabinets and counters, and bathroom vanities (**NAICS 337, Furniture and Related Product Manufacturing**); and
- manufacturing wood signs and coffins (**NAICS 339, Miscellaneous Manufacturing**).

### Note on International Trade Data

This subsector is particular in that there is no international trade as it offers a service within the domestic arena.

---

## Chapter 2 - Establishments Wood Product Manufacturing (NAICS 321)

This section reviews trends in the number of establishments associated with the **Wood Product Manufacturing (NAICS 321)** subsector in Canada for the years 1990 to 1999. It also examines the average production and employment by establishment. The data are drawn from *Statistics Canada's* [Business Patterns database](#) and from the [Annual Survey of Manufacturers \(ASM\)](#).

### Position in NAICS Hierachy

Canada's **Wood Product Manufacturing (NAICS 321)** subsector is comprised of the following industry groups :

- [Sawmills and Wood Preservation \(NAICS 3211\)](#)
- [Veneer, Plywood and Engineered Wood Product Manufacturing \(NAICS 3212\)](#)
- [Other Wood Product Manufacturing \(NAICS 3219\)](#)

It is part of the [Manufacturing \(NAICS 31-33\)](#) sector.

### Business Enterprises and Establishments

For statistical reporting purposes, different types of [business entities](#) are recognised, e.g. the enterprise and the establishment. This section deals exclusively with the [establishment](#) which is the basic unit of production and is generally in a single location producing a limited range of products. The enterprise, on the other hand, is the legal or corporate entity. In Canada most enterprises consist of single establishments, but some operate several plants.

### Establishments by Employment Size Category

The table below indicates the number of establishments by employment size category and by province for the **Wood Product Manufacturing** subsector. These data are derived from a database which is used by *Statistics Canada*, among other purposes, to draw samples for the major surveys it undertakes. Thus, it represents the total universe of establishments, **both active and inactive**. Consequently, it will not match estimates of active establishments derived from survey results. As such, the numbers in the present tables will be considerable higher than those based on industry surveys.

<b>Number of Establishment in Canada (Active and inactive - 1999) by Employment Size and Category and Province Wood Product Manufacturing (NAICS 321)</b>									
<b>Province/Territory</b>	<b>Size Category (number of employees)</b>								
	0	1 - 4	5 - 9	10 - 19	20 - 49	50 - 99	100 - 199	200 - 499	500+
Alberta	251	137	42	56	52	39	22	12	0
British Columbia	543	413	167	152	222	88	75	51	3
Manitoba	56	40	8	17	20	10	4	1	2
N.W.T./Nunavut	3	0	0	1	0	0	0	0	0
New Brunswick	99	120	41	31	35	11	16	5	0
Newfoundland	37	65	21	12	14	3	0	0	0
Nova Scotia	111	117	27	23	31	10	2	1	0
Ontario	735	511	157	159	199	95	64	15	0
P.E.I.	17	27	7	1	2	1	0	0	0
Quebec	573	508	184	186	240	142	71	17	2
Saskatchewan	40	31	14	16	12	3	7	2	0
Yukon	3	1	1	2	1	0	1	0	0
<b>CANADA</b>	<b>2,468</b>	<b>1,970</b>	<b>669</b>	<b>656</b>	<b>828</b>	<b>402</b>	<b>262</b>	<b>104</b>	<b>7</b>
Percent Distribution*	33.5%	26.7%	9.1%	8.9%	11.2%	5.5%	3.6%	1.4%	0.1%
<b>Notes:</b>									
* May not add up perfectly due to rounding									

### Establishments by Employment Type

As mentioned above, some establishments do not employ any individuals. They are in effect owner operated and the owners do not pay wages or salaries to themselves as an employee of the company. Even though some establishments do not maintain employee payrolls, they may have work forces, which may consist of contracted workers, part-time employees, family members or business owners. However, they are all 'non-employers' in that they do not have full-time employees as recorded in confidential tax records. The table below shows the breakdown between employers and non-employers for each province as well as a percentage distribution at the national level. For Canada as a

whole, 33.5% are non-employers and, conversely, 66.5% are employers of one employee or more.

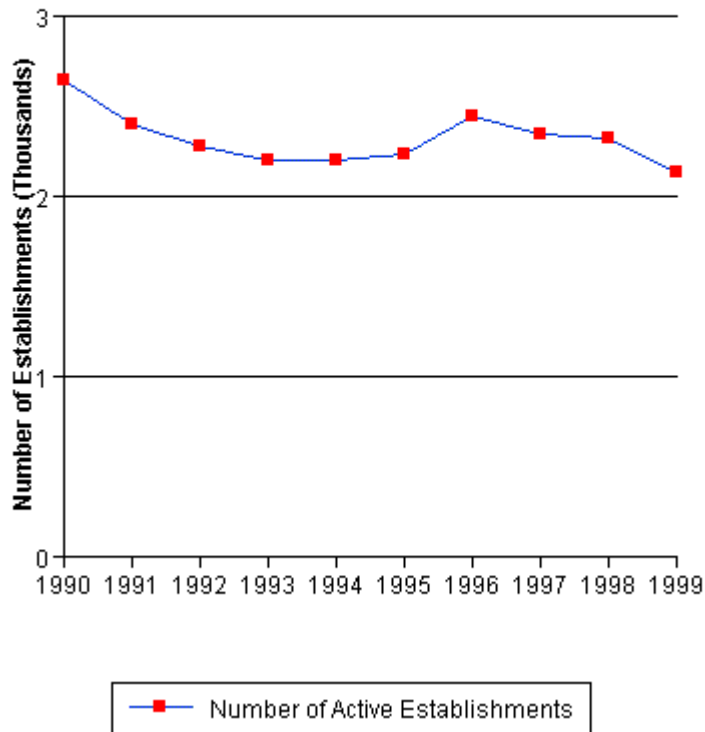
<b>Number of Establishment in Canada (Active and inactive - 1999) by Type and Province Wood Product Manufacturing (NAICS 321)</b>				
<b>Province/Territory</b>	<b>Non-Employers</b>	<b>Employers</b>	<b>Total</b>	<b>% of Canada *</b>
Alberta	251	360	611	8.3%
British Columbia	543	1,171	1,714	23.3%
Manitoba	56	102	158	2.1%
N.W.T./Nunavut	3	1	4	0.1%
New Brunswick	99	259	358	4.9%
Newfoundland	37	115	152	2.1%
Nova Scotia	111	211	322	4.4%
Ontario	735	1,200	1,935	26.3%
P.E.I.	17	38	55	0.8%
Quebec	573	1,350	1,923	26.1%
Saskatchewan	40	85	125	1.7%
Yukon	3	6	9	0.1%
<b>CANADA</b>				
	2,468	4,898	7,366	100%
Percent Distribution *	33.5%	66.5%	100%	
<b>Notes:</b>				
* May not add up perfectly due to rounding				

### Number of Active Establishments

Based on the *Annual Survey of Manufacturers*, the table below indicates the [number of active establishments](#) ranged from 2,653 in 1990 to 2,144 in 1999. This represents a growth rate of -2.1%. Over the most recent year, the number of establishments in the **Wood Product Manufacturing** subsector decreased by -8.5%.

It is important to note that the *Annual Survey of Manufacturers* collects data only from establishments with employees and primarily engaged in manufacturing and with a minimum of \$30,000 in annual production. Thus, it would exclude non-employers as well as establishments where manufacturing activity is minimal or not the primary activity of the firm.

**Number of Active Establishments in Canada  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



Two prominent reasons why the number of active establishments can vary from year to year are :

- First, establishments are created and disbanded.
- Second, an establishment is placed in a NAICS category according to its primary product, the product whose shipments are the highest in terms of dollar value. If an establishment produces more than one product and these products cross over NAICS boundaries then an establishment could move from one NAICS code to another, diminishing one code and augmenting another. For example, an establishment could be making steel and plastic auto parts.

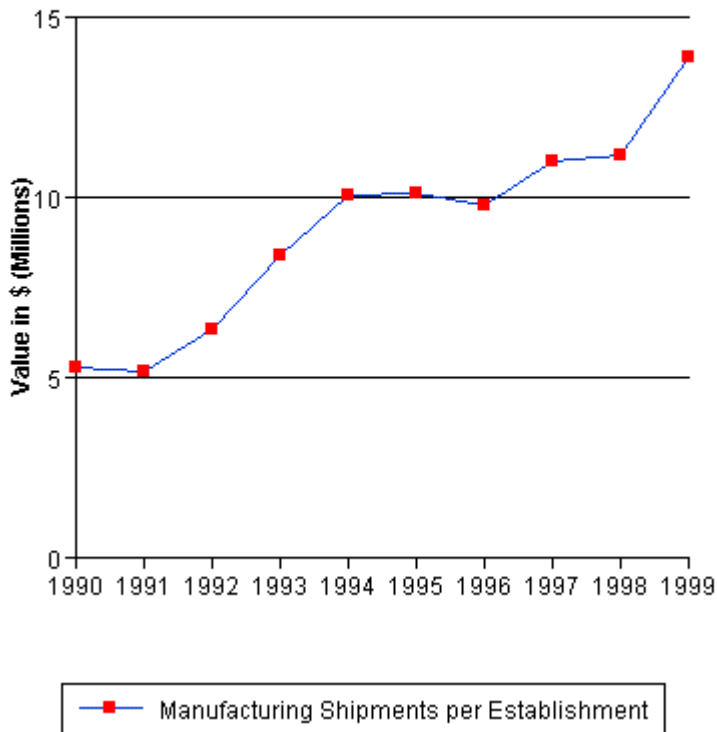
The table below shows the data for the industry groups within the **Wood Product Manufacturing** subsector, as well as comparison to the **Manufacturing Sector** as a whole.

<b>Number of Active Establishments in Canada by Industry Groups belonging to the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Number of Establishments (Active Only)</b>		<b>CAGR* 1990- 1999</b>	<b>% Chang e 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	1,013	908	-1.1%	-7.6%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	204	268	2.8%	-3.0%
3219	Other Wood Product Manufacturing	1,436	968	-3.9%	-10.9%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>2,653</b>	<b>2,144</b>	<b>-2.1%</b>	<b>-8.5%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>38,376</b>	<b>29,822</b>	<b>-2.5%</b>	<b>-7.8%</b>
<b>Notes:</b>					
* Compound annual growth rate					

## Production per Active Establishment

[Manufacturing shipments per establishment](#) for **Wood Product Manufacturing (NAICS 321)** increased from \$5.3 million in 1990 to \$13.9 million in 1999, or on average at 10.1% per annum. There was an increase of 19.7% over the last year.

### Manufacturing Shipments per Active Establishment in Canada 1990-1999 Wood Product Manufacturing (NAICS 321)



The table below shows comparisons among the industry groups within the **Wood Product Manufacturing** subsector with respect to manufacturing shipments per establishment, as well as a comparison with the average for the **Manufacturing Sector**.

<b>Manufacturing Shipments per Active Establishment in Canada by Industry Groups belonging to the Wood Product Manufacturing Subsector (NAICS 321)</b>					
NAICS Code	Industry Group	Shipments per Establishment Value in \$millions		CAGR* 1990-1999	% Change 1998-1999
		1990	1999		
3211	Sawmills and Wood Preservation	8.7	20.7	9.0%	16.9%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	9.4	23.4	9.6%	23.6%
3219	Other Wood Product Manufacturing	2.3	4.9	7.9%	19.7%
<b>321</b>	<b>Wood Product Manufacturing</b>	5.3	13.9	10.1%	19.7%
<b>31-33</b>	<b>All Manufacturing</b>	7.6	16.4	7.9%	16.3%
<b>Notes:</b>					
* Compound annual growth rate					

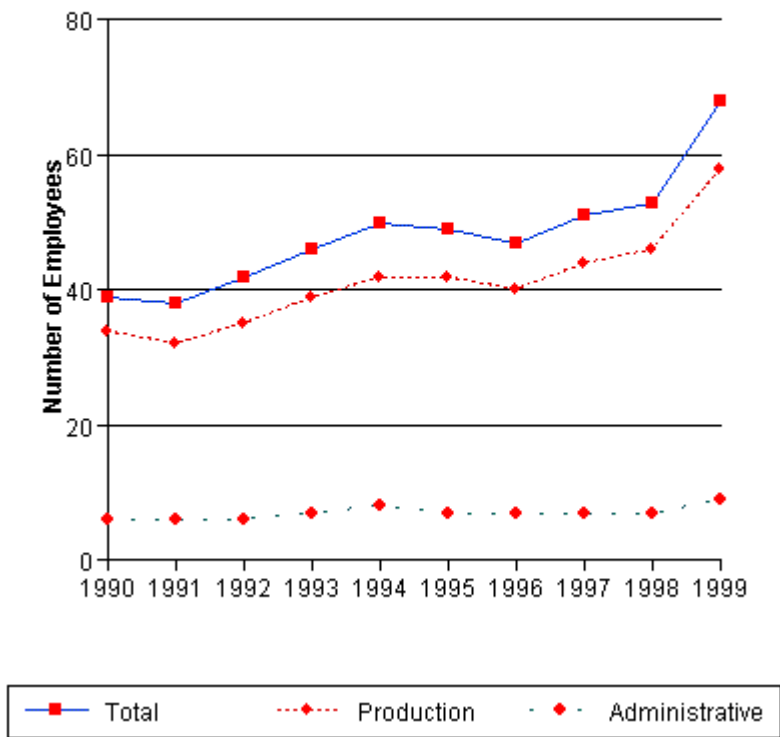
While the value of manufacturing shipments (analysed in the [production](#) section) may wax and wane from year to year, sometimes dramatically, it is unlikely that the number of establishments are subject to the same volatility; it is easier and more practical to slow or speed up production than close or open a plant. In comparing these, it can be seen that [manufacturing shipments](#) increased from \$14.1 billion to \$29.8 billion between 1990 and 1999. The number of active establishments, on the other hand, decreased by -2.1% during that period.

### Employment per Active Establishment

The number of workers per active establishment increased from 39 in 1990 to 68 in 1999, or at an annual average growth rate of 5.7%. The average workforce per establishment increased by 22.1% between 1998 and 1999.

In terms of [production workers](#), the average number of workers per establishment increased from 34 in 1990 to 58 in 1999, or at 5.5% per annum. For [administrative workers](#), the number increased from 6 in 1990 to 9 in 1999, or at 4.1% per annum.

**Employment per Active Establishment in Canada  
By type of Worker  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



The accompanying table breaks down the **Wood Product Manufacturing** subsector into its component industry groups for comparative purposes. Also, one can consider the differences or similarities between these and the **Manufacturing Sector** as a whole.

<b>Number of Workers per Active Establishment in Canada by Industry Groups belonging to the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Workers per Establishment (Active Only)</b>		<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	55.0	83.0	4.2%	16.9%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	75.0	87.0	1.5%	11.5%
3219	Other Wood Product Manufacturing	23.0	48.0	7.6%	33.3%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>39.0</b>	<b>68.0</b>	<b>5.7%</b>	<b>22.1%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>47.0</b>	<b>64.0</b>	<b>3.1%</b>	<b>9.4%</b>
<b>Notes:</b>					
* Compound annual growth rate					

## Chapter 3: Employment Wood Product Manufacturing (NAICS 321)

This section reviews trends in employment for Canada's **Wood Product Manufacturing (NAICS 321)** subsector between 1990 to 1999. The data are obtained from *Statistics Canada's Annual Survey of Manufacturers (ASM)*.

### Employment

Employment within the manufacturing sector is separated into two major categories: production workers and administrative workers. Production employees include those employees engaged in processing, assembling, storing, inspecting, handling, packing, maintenance, repair, janitorial, watchmen services and working foremen. Administrative employees include all employees that are not involved directly in production and related manufacturing activities. Examples include those involved in management, personnel, secretarial, sales, finance and other like activities.

For manufacturing industries, increased domestic production may bring about an increase in employment. However, this can be offset by improvements in technology which improve labour productivity (analysed in the [industry performance](#) section) resulting in a lower demand for labour. In addition, changes in contracting out practices or in the purchase of pre-processed components/materials may also affect the demand for workers.

Employment statistics obtained from the *Annual Survey of Manufacturers (ASM)* are annual averages as part-time and temporary employees are included as are employees absent with pay. On the other hand, contract workers, company pensioners, outside directors of incorporated companies and persons working on a full commission basis are excluded.

<b>Employment by Type 1990-1999 Wood Product Manufacturing (NAICS 321)</b>					
<b>Type of Employee</b>	<b>Number of Employees</b>		<b>% of Total 1999</b>	<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
	<b>1990</b>	<b>1999</b>			
Production	89,045	125,177	86.5%	3.5%	15.4%
Administrative	15,285	19,585	13.5%	2.5%	11.3%
<b>Total</b>	<b>104,330</b>	<b>144,762</b>	<b>100%</b>	<b>3.3%</b>	<b>14.9%</b>
<b>Notes:</b>					

\* Compound Annual Growth Rate

The total number of employees for this subsector increased from 104,330 workers in 1990 to 144,762 workers in 1999, or at a compound annual growth rate of 3.3% over this time span. There was an increase in employment between 1998 and 1999.

By comparison, total employment in the **Manufacturing** sector showed an increase of by 0.5% per annum over the 1990-1999 period and an increase of 2.8% between 1998 and 1999.

The industry groups forming the **Wood Product Manufacturing** subsector can be examined to see what is their share of total subsector employment and how the number of employees in each industry groups has changed since 1990.

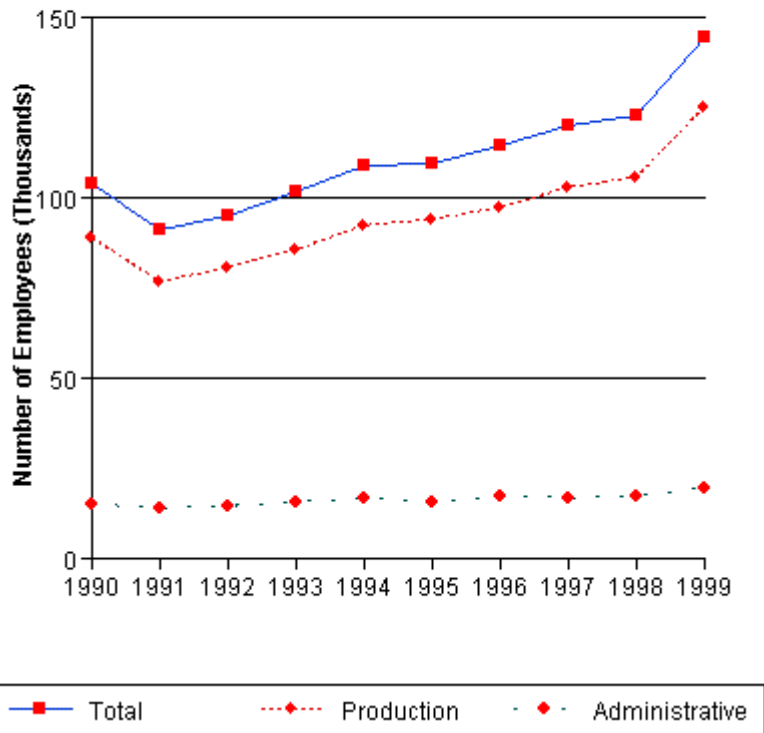
<b>Total Employment Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
NAICS Code	Industry Group	Number of Employees		CAGR* 1990- 1999	% Chang e 1998- 1999
		1990	1999		
3211	Sawmills and Wood Preservation	55,355	74,928	3.1%	10.1%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	15,365	23,267	4.2%	8.8%
3219	Other Wood Product Manufacturing	33,610	46,567	3.3%	25.6%
<b>321</b>	<b>Wood Product Manufacturing</b>	104,330	144,762	3.3%	14.9%
<b>31-33</b>	<b>All Manufacturing</b>	1,814,422	1,910,052	0.5%	2.8%
<b>Notes:</b>					
* Compound Annual Growth Rate					

### Employment by Type of Employee

Breaking employment into its two principal components, the number of production employees in the **Wood Product Manufacturing (NAICS 321)** subsector increased from 89,045 workers in 1990 to 125,177 worker in 1999, or at a rate of 3.5% per year on average. There was an increase of 15.4% in the last year.

Correspondingly, the number of administrative employees in the subsector increased from 15,285 workers in 1990 to 19,585 workers in 1999, or at an average of 2.5% per annum. There was an increase of of 11.3% over the course of most recent year.

#### Number of Employees by Type 1990-1999 Wood Product Manufacturing (NAICS 321)



The percentage of employees that are production workers increased from 85.3% in 1990 to 86.5% in 1999. As a result, there was a relative decrease in the proportion of administrative workers.

An increased proportion of administrative workers may come about if the utilisation of production workers has decreased relative to administrative workers. In other words, if the number of administrative workers has decreased more slowly, remained stable or even increased.

This can be compared to the **Manufacturing Sector** as a whole where 76.0% of employees were production workers in 1990 compared to 78.3% in 1999. This proportion increased at an average rate of 0.3% over the 1990-1999 period and it decreased by -0.5% in 1998-1999.

Several factors may contribute to decreases in the proportion of administrative workers. For instance, a reorganisation of the work force or technological improvements may result in a lower demand for administrative workers. Or again changes would be expected if a significant proportion of establishments within an industry elects to purchase some services rather than perform them in-house. Changes in these ratios over time could result from one or more of the following factors.

First, the number of production workers in relation to the total may have decreased for a number of reasons, e.g. increased reliance on contract employees. Second, the composition of the non-production cohort may have been transformed. The non-production workers include managers, administrators and professions such as engineers and computer and research scientists. As modern industries become more knowledge intensive it is possible that this component of the work force may have grown in significance.

---

## Chapter 4 : Salaries and Wages Wood Product Manufacturing (NAICS 321)

This chapter reviews trends in employment, salaries and wages for Canada's **Wood Product Manufacturing (NAICS 321)** subsector between 1990 and 1999. The data is obtained from *Statistics Canada's Annual Survey of Manufacturers (ASM)*.

### Salaries and Wages

This chapter analyses the cost of labour measured by the total dollar amount paid to workers by establishments over the course of a calendar year. A comparison with other operating costs (i.e. materials, supplies, fuel and electricity) is offered in the section on [manufacturing costs](#).

Salaries and wages paid to employees are gross amounts before deductions for income tax and employee contributions to various benefit plans. Vacation and overtime pay are included, but not expenses associated with contract workers, employment agencies or casual labour. Employer contributions to employee benefit plans are also excluded.

<b>Wages and Salaries Paid by Type of Employee 1990-1999 Wood Product Manufacturing (NAICS 321)</b>					
<b>Type of Employee</b>	<b>Value in \$billions</b>		<b>% of Total 1999</b>	<b>CAGR* 1990-1999</b>	<b>% Change 1998-1999</b>
	<b>1990</b>	<b>1999</b>			
Production	2.6	4.2	79.3%	4.7%	14.4%
Administrative	0.7	1.1	20.7%	5.3%	15.1%
<b>Total</b>	<b>3.3</b>	<b>5.3</b>	<b>100%</b>	<b>4.8%</b>	<b>14.5%</b>

**Notes:**

Totals may not add up perfectly due to rounding  
 \* Compound annual growth rate

Wages and salaries paid to employees have increased from \$3.3 billion in 1990 to \$5.3 billion in 1999, or at a compound annual growth rate (CAGR) of 4.8%. Between 1998 and 1999, they increased by 14.5%.

For the **Manufacturing** sector, wages and salaries paid out increased by 2.8% per year since 1990 and increased by 5.2% over the course of 1998-1999. Changes in wages and salaries depend, for the most part, on the relative fortunes of particular industries as some become more significant to the Canadian economy and others decline in significance. This may be due to changes in comparative advantage with other countries, shifts in consumer tastes or alterations in the cost or availability of supplies, to name a few factors.

In NAICS, the **Wood Product Manufacturing** subsector is broken down into several industry groups. Changes in the wages and salaries paid out by establishments in each of these industry groups can be detailed for both the 1990-1999 period and for the latest two years.

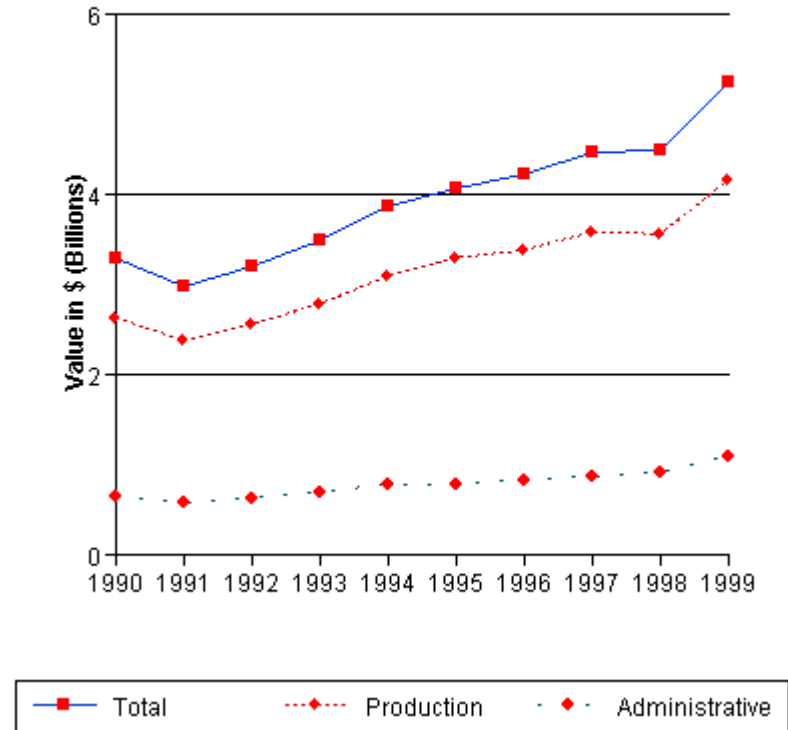
<b>Total Wages Paid Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
NAICS Code	Industry Group	Value in \$billions		CAGR* 1990-1999	% Change 1998-1999
		1990	1999		
3211	Sawmills and Wood Preservation	2.0	3.0	4.2%	8.9%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	0.5	1.0	7.5%	15%
3219	Other Wood Product Manufacturing	0.8	1.3	4.4%	27.1%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>3.3</b>	<b>5.3</b>	<b>4.8%</b>	<b>14.5%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>58.0</b>	<b>76.1</b>	<b>2.8%</b>	<b>5.2%</b>
<b>Notes:</b>					
* Compound annual growth rate					

### Salaries and Wages by Type of Employee

When broken down by type of employee, production worker wages increased from \$2.6 billion in 1990 to \$4.2 billion in 1999 or at an average of 4.7% per annum; and between 1998 and 1999 they increased by 14.4%.

The wages and salaries of administrative workers, on the other hand, grew from \$650.5 million to \$1.1 billion over the 1990-1999 period yielding a compound annual growth rate of 5.3%. Between 1998 and 1999, these wages and salaries increased by 15.1%.

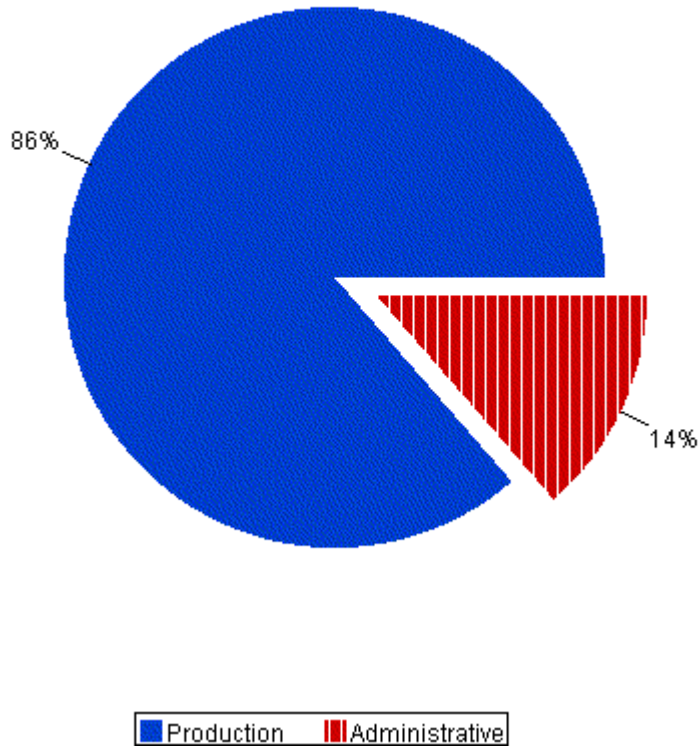
**Total Wages Paid  
By Employment Type  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



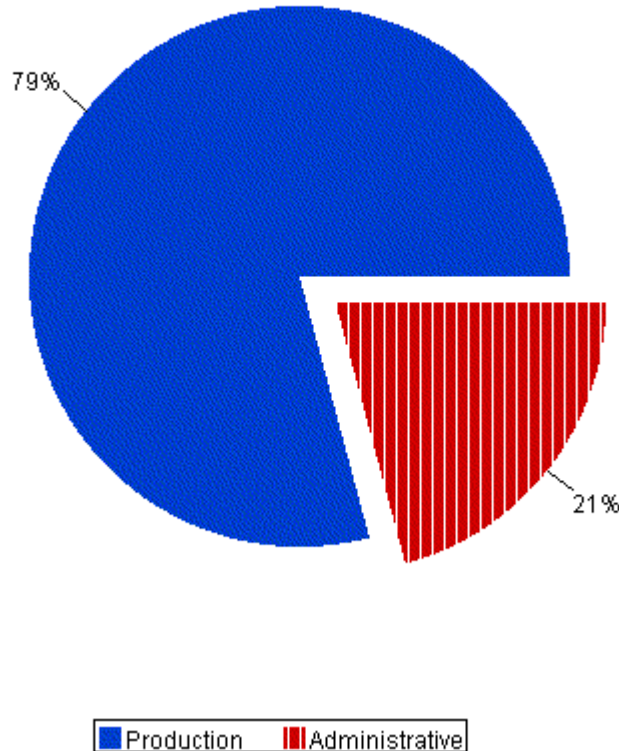
When looking at the **Manufacturing** sector over the years since 1990 wages and salaries for production workers increased by at an average of 3.0% per year, whereas those paid to administrative workers rose by 2.3%.

Remuneration packages will fluctuate in response to changes in production. However, remuneration for production and non-production workers may not increase at the same rate as establishments within an industry will react in various ways to the dynamics of the marketplace. The share of wages and salaries paid to production workers can be compared to their percentage of the total work force. It would not be surprising to find that it is greater since a large proportion of administrative employees are managers and professionals.

**Comparison of Employment and Wages  
Production vs Administrative Employees - Share of Total  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)  
*SHARE OF TOTAL EMPLOYMENT***



### **SHARE OF TOTAL WAGES PAID**



In the case of the **Manufacturing** sector in 1999, the 21.7% of employees that were non-production workers received 29.9% of all the salaries and wages paid out by establishments to their workforce.

Changes in these ratios over time could result from one or more of the following factors.

- First, the number of production workers in relation to the total may have decreased for a number of reasons, e.g. increased reliance on contract employees.
- Second, the composition of the non-production cohort may have been transformed. The non-production workers include managers, administrators and professions such as engineers and computer and research scientists. As modern industries become more knowledge intensive it is possible that this component of the work force may have grown in significance.

Both the workforce and the remuneration paid to employees are dependent on the revenues of the industry. While it is not possible or even practical to adjust too quickly to changes in revenue, over the longer term such adjustments will inevitably occur. In the shorter term, if shipments go down, one may not see an immediate drop in the wage component of operating costs. They may remain stable or even rise a little. Likewise, if shipments go up dramatically one would not expect to see an immediate commensurate increase in wages.

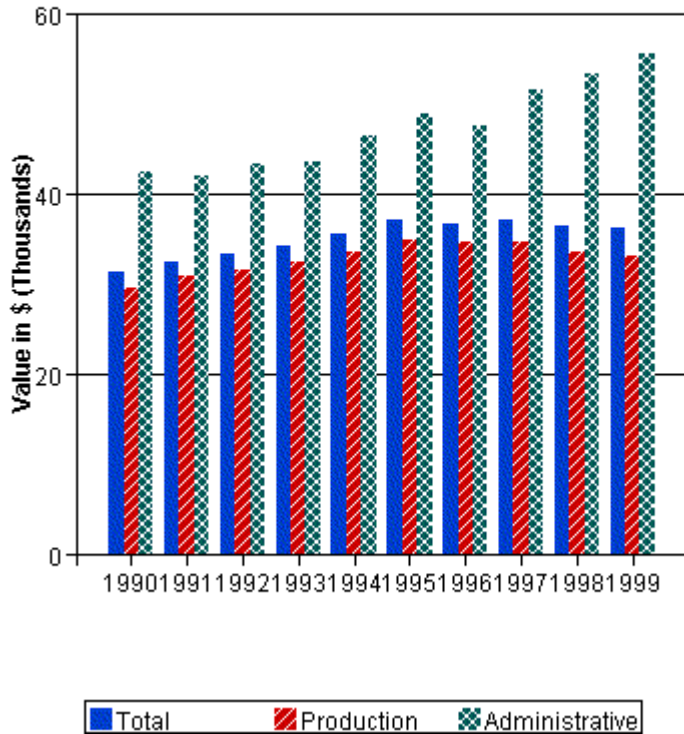
## Average Salaries

Average annual salaries for both production and administrative workers can be calculated by dividing the total wages paid by the number of employees.

<b>Average Annual Salaries by Type of Employee 1990-1999 Wood Product Manufacturing Industry Group (NAICS 321)</b>				
<b>Type of Employee</b>	<b>Value in \$</b>		<b>CAGR* 1990-1999</b>	<b>% Change 1998-1999</b>
	<b>1990</b>	<b>1999</b>		
Production	29,665	33,329	1.2%	-1.2%
Administrative	42,557	55,726	2.7%	4.2%
<b>Total</b>	<b>31,554</b>	<b>36,359</b>	<b>1.4%</b>	<b>-0.4%</b>
<b>Notes:</b>				
Totals will not add up as these are averages				
*Compound annual growth rate				

The average annual salaries for employees of the **Wood Product Manufacturing** subsector rose from \$31,554 in 1990 to \$36,359 in 1999, or at 1.4% per annum. There was a decrease of of -0.4% over the 1998-1999 period.

**Annual Average Salary  
By Employment Type  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



The average annual salaries for production workers grew more slowly than over the 1990-1999 time period, and decreased by -1.2% in the course of the latest year. For administrative employees, the average annual salaries grew more slowly than between 1990 and 1999.

<b>Average Annual Salaries by Type of Employee Comparison to Manufacturing Sector Wood Product Manufacturing (NAICS 321)</b>				
<b>Type of Employee</b>	<b>Wood Product Manufacturing</b>		<b>All Manufacturing</b>	
	<b>Value in \$</b>	<b>CAGR*</b>	<b>Value in \$</b>	<b>CAGR*</b>
	<b>1999</b>	<b>1990-1999</b>	<b>1999</b>	<b>1990- 1999</b>
Production	33,329	1.2%	35,664	2.1%
Administrative	55,726	2.7%	54,804	2.8%
<b>Total</b>	<b>36,359</b>	<b>1.4%</b>	<b>39,825</b>	<b>2.2%</b>

**Notes:**  
Totals will not add up as these are averages  
\*Compound annual growth rate

In 1999, workers in the **Wood Product Manufacturing** subsector were paid \$36,359 on average. This compares to the average of \$39,825 for the **Manufacturing Sector** as a whole.

Over the 1990-1999 period, the annual salary of administrative workers increased 2.7% while the annual wage package for production workers increased by 1.2%.

The table below breaks down the **Wood Product Manufacturing** subsector into the various industry groups of which is comprised.

<b>Average Annual Salaries Industry Groups forming the Wood Product Manufacturing Industry Group (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$</b>		<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	35,398	39,395	1.1%	-1.3%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	32,566	44,212	3.1%	6.8%
3219	Other Wood Product Manufacturing	24,761	27,549	1.1%	2.1%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>31,554</b>	<b>36,359</b>	<b>1.4%</b>	<b>-0.4%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>31,976</b>	<b>39,825</b>	<b>2.2%</b>	<b>2.5%</b>
<b>Notes:</b>					
* Compound annual growth rate					

## Chapter 5 - Production Wood Product Manufacturing (NAICS 321)

This section reviews trends in production for Canada's **Wood Product Manufacturing (NAICS 321)** subsector between 1990 and 1999.

It concentrates on the transformation of goods into manufactured products destined for retail and wholesale markets, exports to international markets, or to serve as inputs for other industries. It does not focus on the products themselves or the quantities produced, but on the monetary value of the outputs. As far inputs, [manufacturing costs](#) and [salaries and wages](#) are covered more fully in other sections. The data is obtained from *Statistics Canada's Annual Survey of Manufactures (ASM)*.

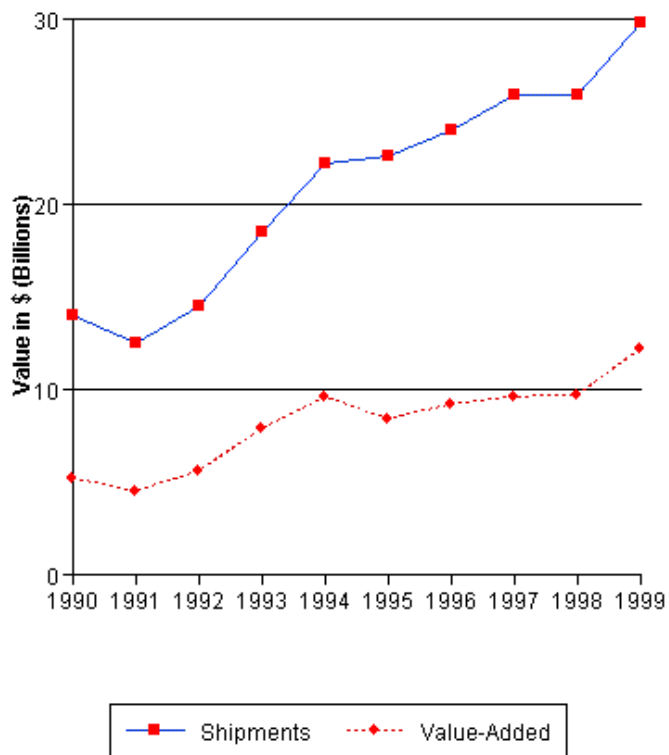
## Manufacturing Shipments

Initially we examine production in Canada as measured by the total value of manufacturing shipments of the industry which is essentially the value of goods produced by its establishments, including custom and repair work, as well as goods made under contract . They are valued in current Canadian dollars.

### Value of Production

#### Manufacturing Shipments and Manufacturing Value-Added 1990-1999

#### Wood Product Manufacturing (NAICS 321)



Manufacturing shipments for this subsector increased from \$14.1 billion in 1990 to \$29.8 billion in 1999, or at an average compound annual rate of 7.8% per year.

<b>Value of Production Manufacturing Shipments and Manufacturing Value-Added 1990-1999 Wood Product Manufacturing Subsector (NAICS 321)</b>				
<b>Measure of Production</b>	<b>Value in \$billions</b>		<b>CAGR* 1990-1999</b>	<b>% Change 1998-1999</b>
	<b>1990</b>	<b>1999</b>		
Manufacturing Shipments	14.1	29.8	7.8%	12.9%
Manufacturing Value-Added	5.2	12.3	9.0%	20.9%
<b>Notes:</b>				
* Compound annual growth rate				

Changes in domestic production within a particular subsector will depend on a variety of factors such as evolving international export markets, trends in consumer demand and patterns of consumption, competition with imports in the domestic market, economic conditions which affect production (including labour costs), profitability, and so on. Technological changes will impact by affecting consumer demand as well as the cost of production.

The table below breaks down the manufacturing shipments for the industry groups composing the **Wood Product Manufacturing** subsector.

<b>Value of Manufacturing Shipments Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$billions</b>		<b>CAGR* 1990- 1999</b>	<b>% Chang e 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	8.8	18.8	7.8%	10.6%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	1.9	6.3	12.6%	21.3%
3219	Other Wood Product Manufacturing	3.3	4.8	3.7%	11.0%
321	Wood Product Manufacturing	14.1	29.8	7.8%	12.9%
31-33	All Manufacturing	293.3	488.6	5.2%	9.7%
<b>Notes:</b>					
* Compound annual growth rate					

### Manufacturing Value-Added

The value added is a measure of net output (i.e. of gross output less those purchased inputs - such as cost of materials and supplies and of fuel and electricity) which have been embodied in the value of the product. In contrast to the measure of total shipments, value added provides some insight into the degree of transformation which occurs within industries.

In short, manufacturing value-added consists of the value of manufacturing shipments plus net change in the inventory of goods in process and finished goods, less the costs of materials and supplies and of the fuel and electricity used.

Manufacturing value-added for the **Wood Product Manufacturing** subsector increased from \$5.2 billion in 1990 to \$12.3 billion in 1999, or at an average rate of 9.0% per annum. Over the course of the two latest years, the growth rate was 20.9%.

The breakdown for the industry groups is shown in the table below.

<b>Value of Manufacturing Value-Added Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$billions</b>		<b>CAGR* 1990- 1999</b>	<b>% Chang e 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	3.0	7.1	9.0%	19.3%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	0.8	3.2	15.0%	31.6%
3219	Other Wood Product Manufacturing	1.4	2.0	3.5%	9.1%
<b> </b>					
321	Wood Product Manufacturing	5.2	12.3	9.0%	20.9%
<b> </b>					
31-33	Manufacturing	118.8	202.8	5.5%	11.8%
<b> </b>					
<b>Notes:</b>					
* Compound annual growth rate					

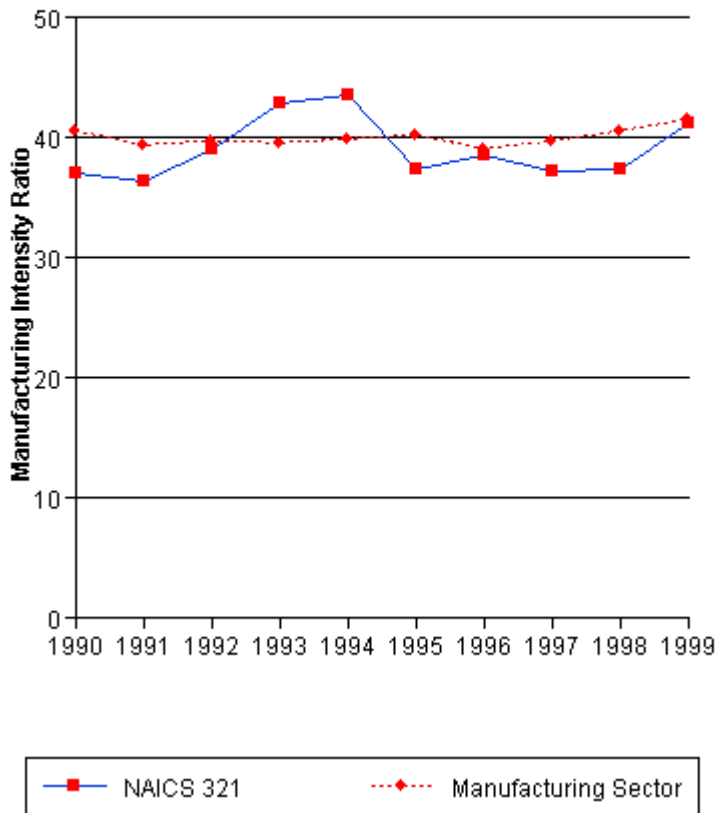
## Manufacturing Intensity

The manufacturing intensity ratio, calculated by dividing manufacturing value-added by manufacturing shipments, gives a sense of how much transformation takes place within an industry and what proportion of value is added.

For example, in industries where relatively significant capital and labour is applied, the manufacturing intensity ratio is relatively high. It is relatively low where lower amounts of capital and labour are needed to produce the final output.

<b>Manufacturing Intensity Ratio (MIR)</b>					
<b>Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
NAICS Code	Industry Group	MIR in %		CAGR* 1990-1999	% Change 1998-1999
		1990	1999		
3211	Sawmills and Wood Preservation	34.0	37.6	1.1%	10.5%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	42.0	51.5	2.2%	13.5%
3219	Other Wood Product Manufacturing	42.2	41.4	-0.2%	-2.4%
321	Wood Product Manufacturing	37.0	41.2	1.0%	9.8%
31-33	Manufacturing	40.5	41.5	0.2%	2.4%
<b>Notes:</b>					
* Compound annual growth rate					

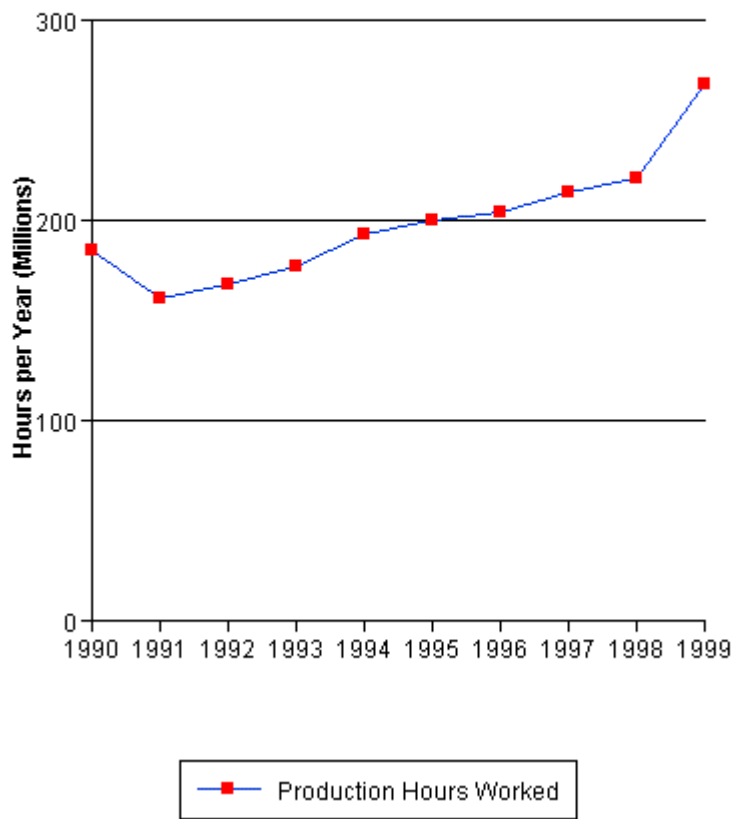
**Manufacturing Intensity Ratio  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)  
Comparison with Manufacturing Sector**



## Hours Worked by Production Workers

The total hours worked by the production staff each year is recorded by the *Annual Survey of Manufactures (ASM)*. The total number of hours worked in the **Wood Product Manufacturing** subsector has increased from 185.0 million hours in 1990 to 268.5 million hours in 1999, or by 3.8% per annum on average.

### Total Hours Worked 1990-1999 Wood Product Manufacturing (NAICS 321)



The number of hours worked per week has increased from an average of 40 hours in 1990 to 41.2 hours in 1999, or by 0.3% per year. By comparison, the average for the **Manufacturing Sector** as a whole an increase of from 39.9 hours per week in 1990 to 40.3 hours per week in 1999.

<b>Average Hours Worked per Week Per Employee Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
NAICS Code	Industry Group	Hours per Week		CAGR* 1990- 1999	% Change 1998- 1999
		1990	1999		
3211	Sawmills and Wood Preservation	40.0	40.8	0.2%	2.0%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	40.2	40.6	0.1%	2.2%
3219	Other Wood Product Manufacturing	39.7	42.3	0.6%	3.3%
<b>321</b>					
321	Wood Product Manufacturing	40.0	41.2	0.3%	2.4%
<b>31-33</b>					
31-33	Manufacturing	39.9	40.3	0.1%	-0.2%
<b>Notes:</b>					
* Compound annual growth rate					

## Chapter 6: Manufacturing Costs Wood Product Manufacturing (NAICS 321)

This chapter reviews manufacturing costs for Canada's **Wood Product Manufacturing (NAICS 321)** subsector between 1990 and 1999.

### Manufacturing Costs

Costs for manufacturing activities can be separated in three main categories : cost of materials and supplies, cost of fuel and electricity and salaries and wages. The latter is analysed in greater detail in the [salaries and wages](#) section.

Manufacturing costs in the **Wood Product Manufacturing** subsector were dominated in 1999 by the costs of materials and supplies.

Considering these costs are the major factor in its manufacturing activities, this subsector is vulnerable to any fluctuation in the prices of materials and supplies.

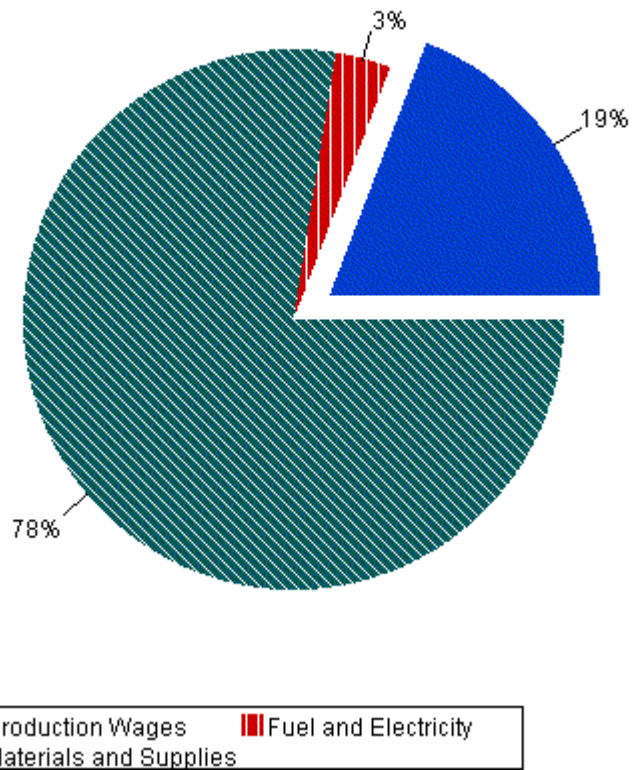
Manufacturing costs in the **Wood Product Manufacturing** subsector were dominated in 1999 by the costs of fuel and electricity.

Considering these costs are the major factor in its manufacturing activities, this subsector is vulnerable to any fluctuation in the prices of fuel and electricity. @H6WG@

Manufacturing costs in the **Wood Product Manufacturing** subsector were dominated in 1999 by the costs of labour.

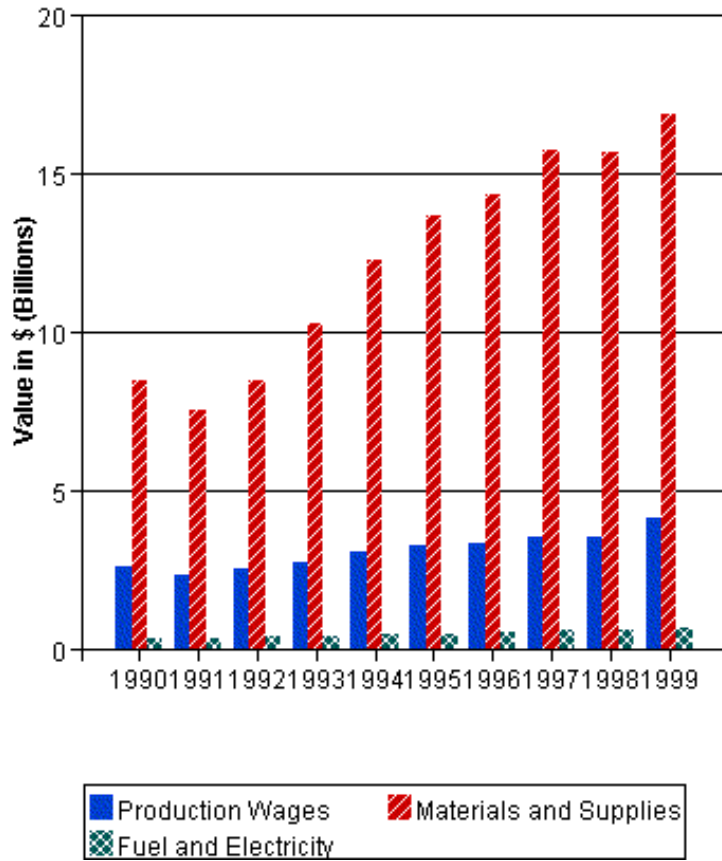
Considering these costs are the major factor in its manufacturing activities, this subsector is vulnerable to any fluctuation in salaries and wages.

**Manufacturing Costs by Type  
Distribution in 1999  
Wood Product Manufacturing Subsector  
(NAICS 321)**



The costs of materials and supplies (for manufacturing activities) increased from \$8.5 billion in 1990 to \$16.9 billion in 1999, or at a compound annual growth rate of 7.1%.

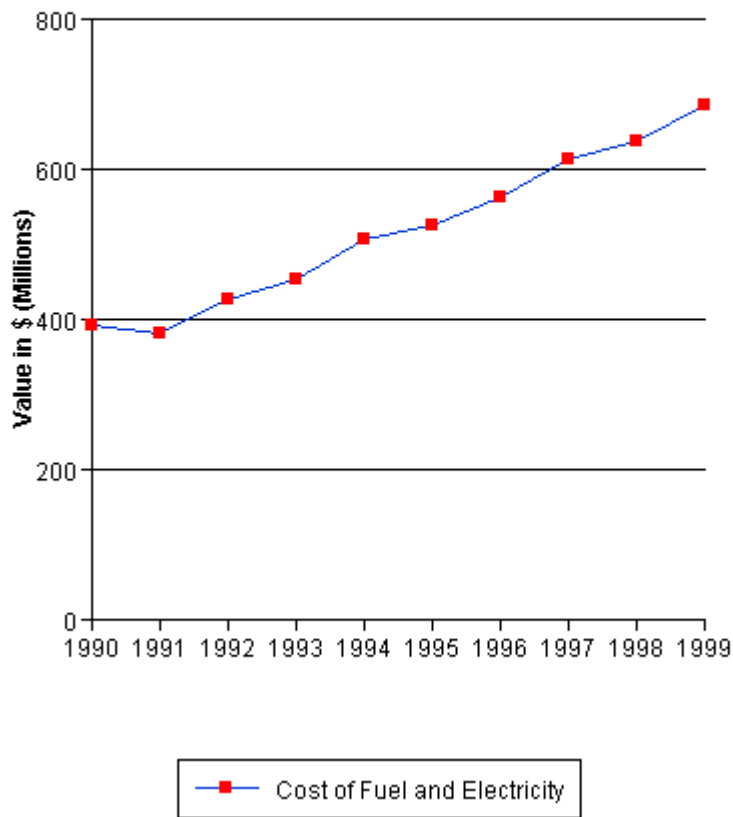
**Manufacturing Costs by Type**  
**1990-1999**  
**Wood Product Manufacturing Subsector**  
**(NAICS 321)**



## Cost of Fuel and Electricity

The costs of fuel and electricity increased from \$394.4 million in 1990 to \$687.2 million in 1999, or at an average rate of 5.7%.

### Cost of Fuel and Electricity 1990-1999 Wood Product Manufacturing Subsector (NAICS 321)



**Wood Product Manufacturing** is broken down into several industry groups in Canada and in the related table one can make comparisons between them. However, one should bear in mind that since they are different industry groups with different markets and production characteristics, simple comparisons should be treated with an appropriate degree of caution.

<b>Manufacturing Costs** Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$billions</b>		<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	7.5	14.2	6.6%	5.8%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	1.5	3.8	9.6%	11.3%
3219	Other Wood Product Manufacturing	2.6	3.8	4.1%	16.1%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>11.5</b>	<b>21.8</b>	<b>6.6%</b>	<b>8.5%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>215.0</b>	<b>342.2</b>	<b>4.8%</b>	<b>7.9%</b>
<b>Notes:</b>					
* Compound annual growth rate					
** Sum of the cost of materials and supplies and of fuel and electricity for manufacturing activities plus wages paid to production workers					

## Chapter 7: Industry Performance Wood Product Manufacturing (NAICS 321)

The relative performance of industries, like the relative performance of businesses, can be analysed using a combination of quantitative and performance ratios. Some ratios focus on financial analysis and profitability in particular. These are not covered here, although some related information is available on the [Performance Plus](#) site.

This chapter focuses on the manufacturing output for Canada's **Wood Product Manufacturing** subsector relative to the size of its labour force, the hours worked by its

production employees and the costs of employment, materials and supplies and of fuel and electricity between 1990 and 1999.

Manufacturing output can be expressed in terms of manufacturing shipments or manufacturing value added, while labour input can be measured in terms of the numbers of workers employed or in terms of the number of hours worked by production workers. Various combinations of the above will be presented in this section of the report. The data are derived from information gathered from *Statistics Canada's Annual Survey of Manufactures (ASM)*.

## Output per Employee

First, we analyse manufacturing shipments per employee over time. This can be calculated counting all employees or only production workers.

### Manufacturing Shipments per Employee All Employees vs. Production Employees 1990-1999 Wood Product Manufacturing (NAICS 321)



Manufacturing shipments per production worker for this subsector increased \$157.9 thousand in 1990 to \$238.4 thousand in 1999 or at average compound annual rate of 4.2% per year. If one also counts administrative workers the growth rate over this time span was 4.3%.

<b>Output Per Employee Manufacturing Shipments and Manufacturing Value-Added 1990-1999 Wood Product Manufacturing Subsector (NAICS 321)</b>				
<b>Type of Output</b>	<b>Value in \$thousands</b>		<b>CAGR* 1990-1999</b>	<b>% Change 1998-1999</b>
	<b>1990</b>	<b>1999</b>		
Manufacturing Shipments per Employee	134.8	206.1	4.3%	-2.3%
Manufacturing Shipments per Production Worker	157.9	238.4	4.2%	-3.0%
Manufacturing Value-Added per Employee	49.9	84.8	5.5%	7.1%
Manufacturing Value-Added per Production worker	58.4	98.1	5.3%	6.5%
<b>Notes:</b>				
* Compound annual growth rate				

Manufacturing value added per worker is another measure of performance. Value added reflects net output, that is, of gross output less those purchased inputs which have been embodied in the value of the product. Value added avoids double counting since products purchased from other establishments are deducted as input costs. Thus, manufacturing value added per employee is a measure of net output per worker and is a better indicator of labour productivity as variations in the cost of materials, supplies and purchased fuel and electricity used are excluded.

**Manufacturing Value-Added per Employee  
All Employees vs. Production Employees  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



Manufacturing value added per production worker for the subsector increased \$58.4 thousand in 1990 to \$98.1 thousand in 1999, or at average compound annual rate of 5.3% per year. If one also counts administrative workers, the growth rate over this time span was 5.5%.

The table below breaks down the manufacturing shipments per production worker for the industry groups composing the **Wood Product Manufacturing** subsector.

<b>Manufacturing Shipments Per Production Worker by Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$thousands</b>		<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	185.2	281.7	4.3%	-0.7%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	146.6	329.2	8.4%	13.3%
3219	Other Wood Product Manufacturing	117.3	121.4	0.4%	-19.4%
<b>321</b>	<b>Wood Product Manufacturing</b>	157.9	238.4	4.2%	-3.0%
<b>31-33</b>	<b>All Manufacturing</b>	212.8	326.9	4.4%	7.7%
<b>Notes:</b>					
* Compound annual growth rate					

The table below breaks down the manufacturing value-added per production worker for the industry groups composing the **Wood Product Manufacturing** subsector.

<b>Manufacturing Value-Added Per Production Worker</b>					
<b>Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$thousands</b>		<b>CAGR* 1990-1999</b>	<b>% Change 1998-1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	62.9	105.9	5.4%	9.1%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	61.6	169.7	10.7%	24.7%
3219	Other Wood Product Manufacturing	49.5	50.3	0.2%	-22.0%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>58.4</b>	<b>98.1</b>	<b>5.3%</b>	<b>6.5%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>86.1</b>	<b>135.7</b>	<b>4.7%</b>	<b>9.8%</b>
<b>Notes:</b>					
* Compound annual growth rate					

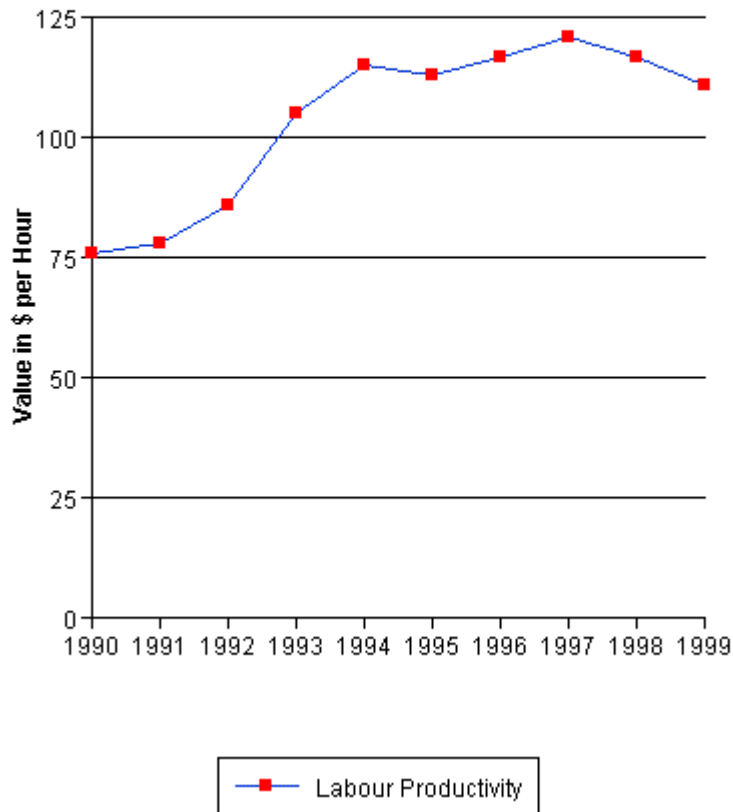
### Labour Productivity : Output per Hour

Labour productivity measures manufacturing output per unit of labour input. Changes in labour productivity may result from changes in one or more of the following factors:

- the level of capital expenditures for the purchase of more efficient equipment;
- the amount and type of employee training and work incentives offered;
- the degree to which work flows are adjusted over time;
- the size and composition of the work force.

Labour productivity may fall if an industry does not adequately invest in the competence of its labour force, in modernizing its plants or in improving the efficiency of operations.

**Labour Productivity : Output Per Hour  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



Output per hour in the **Wood Product Manufacturing** subsector has increased from \$76 in 1990 to \$111 in 1999, or by 3.9% per annum on average. In the latest year, the growth rate was -5.4%.

The table below breaks down output per hour for the industry groups composing the **Wood Product Manufacturing** subsector.

<b>Output** per Hour Industry Groups forming the Wood Product Manufacturing Subsector (NAICS 321)</b>					
<b>NAICS Code</b>	<b>Industry Group</b>	<b>Value in \$ Per Hour</b>		<b>CAGR* 1990- 1999</b>	<b>% Change 1998- 1999</b>
		<b>1990</b>	<b>1999</b>		
3211	Sawmills and Wood Preservation	89.0	133.0	4.1%	-2.3%
3212	Veneer, Plywood and Engineered Wood Product Manufacturing	70.0	156.0	8.3%	11.5%
3219	Other Wood Product Manufacturing	57.0	55.0	-0.4%	-23.6%
<b>321</b>	<b>Wood Product Manufacturing</b>	<b>76.0</b>	<b>111.0</b>	<b>3.9%</b>	<b>-5.4%</b>
<b>31-33</b>	<b>All Manufacturing</b>	<b>102.0</b>	<b>156.0</b>	<b>4.3%</b>	<b>7.7%</b>

**Notes:**

\* Compound annual growth rate  
 \*\* Output is expressed here in terms of manufacturing shipments

### Manufacturing vs Total Activity

Almost all manufacturing industries derive revenues from non-manufacturing activities. In some cases, such as **Retail Bakeries (NAICS 311811)** or **Cut and Sew Clothing Contracting (NAICS 31521)**, these are reported with manufacturing shipments, but more generally revenues from non-manufacturing activity are obtained by subtracting manufacturing shipments from total revenues.

This residual amount is usually composed of the following :

- Revenues from the sale of goods purchased for resale in the same condition;
- Revenues from the lease or rental of property, machinery or equipment;
- Revenues from the operation of cafeterias, laboratories and the like;
- Revenues from other services rendered.

There may be also cases where non-manufacturing revenues actually outstrip those from manufacturing shipments. This would occur, for instance when there are a

significant number of establishments within an industry that have a variety of other earnings from investments, wholesale or retail outlets and where none of these are large enough in themselves to cause the establishment to be assigned to another sector. For classification purposes, an establishment is assigned according to the sphere of economic activity where the highest proportion of the revenue is earned.

<b>Total Revenue Manufacturing vs Non-Manufacturing Activity 1990-1999 Wood Product Manufacturing Subsector (NAICS 321)</b>					
Type of Output	Value in \$billions		% of Total 1999	CAGR* 1990-1999	% Change 1998-1999
	1990	1999			
Manufacturing Shipments	14.1	29.8	93.3%	7.8%	12.9%
Other Revenues	0.7	2.1	6.7%	11.8%	27.4%
<b>Total</b>	<b>14.8</b>	<b>32.0</b>	<b>100%</b>	<b>8.0%</b>	<b>13.9%</b>
<b>Notes:</b>					
* Compound annual growth rate					

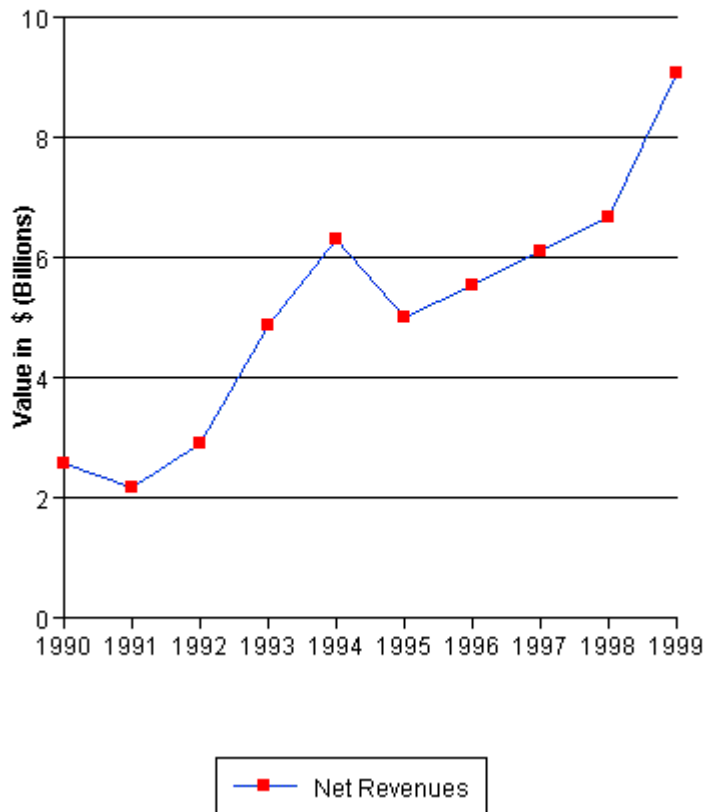
Total revenues in the **Wood Product Manufacturing** subsector has increased from \$14.8 billion in 1990 to \$32.0 billion in 1999 or by 8.0% per annum on average. In the latest year the growth rate was 13.9%. Over the 1990-1999 period, these increased by 11.8% on average, while revenues from non-manufacturing increased by 11.8% during the same time span. By 1999, revenues from manufacturing activities accounted for 93.3% of the total.

### Net Revenues

A business will be judged successful if its profits are high enough to provide adequate return on investment. Profits will only be stable or increase if expenses do not outstrip revenues.

We can estimate net revenues by subtracting the total cost of material and supplies, the cost of fuel and electricity and the total wages paid to all workers from the total revenues, as recorded This may not match exactly balance sheet information, but should be reasonably close.

**Net Revenues  
1990-1999  
Wood Product Manufacturing  
(NAICS 321)**



Net revenues in the **Wood Product Manufacturing** subsector has increased from \$2.6 billion in 1990 to \$9.1 billion in 1999 or by 13.5% per annum on average. In the latest year the growth rate was 26.5%.

## Chapter 8 : International Trade Wood Product Manufacturing (NAICS 321)

This section reviews trends in the international trade associated with Canada's **Wood Product Manufacturing (NAICS 321)** subsector for the years 1992 to present.

This section contains links to [Trade Data Online](#) - a dynamic application on the **Strategis** web site that generates reports and graphs for trade statistics based on selected parameters (such the trade type, time period, trading partner etc.)

The links in this section generate selected reports and graphs for the **Wood Product Manufacturing (NAICS 321)** subsector. However, from the **Trade Data Online** site, you may modify the selections to obtain other customized outputs.

The data are obtained from *Statistics Canada* and are based on information captured by customs.

### Exports

**Total exports** include all goods leaving the country (through Customs) for a foreign destination. It consists of the sum of domestic exports and re-exports.

#### **TOTAL EXPORTS = DOMESTIC EXPORTS + RE-EXPORTS**

**Domestic exports** consist of the exports of all goods grown, produced, extracted or manufactured in the country (Canada) leaving the country (through customs) for a foreign destination. Exports of imported merchandise which has been substantially enhanced in value are also included.

On the other hand, **re-exports** refer to the export of goods that have previously entered the country (Canada) and are leaving in the same condition as when first imported. Exports of imported merchandise which has been minimally processed but NOT substantially enhanced in value are also counted as re-exports.

The following links request the **Trade Data Online** application to generate on-the-fly reports and charts using the latest available data from *Statistics Canada* :

[Total Exports - Top 10 Countries of Destination - Latest 5 Years \(Report\)](#)

[Total Exports by Province of Origin - Latest 10 Years \(Report\)](#)

[Total Exports to Selected Destinations - Latest 5 Years \(Chart\)](#)

[Total Exports to the U.S. by State of Destination - Latest 5 Years \(Report\)](#)

[Total Exports by Country of Destination - Year to Date vs. Previous Year to Date \(Report\)](#)

### Imports

**Total imports** include all goods which have entered the country (Canada) by crossing territorial (customs) boundaries, whether for immediate domestic consumption or for storage in Customs bonded warehouses.

This includes *re-imports*. This refers to goods re-entering (returned to) Canada after having been exported abroad without having been *materially altered or substantially enhanced in value* while abroad.

The following links request the **Trade Data Online** application to generate on-the-fly reports and charts using the latest available data from *Statistics Canada*.

[Total Imports - Top 10 Countries of Origin - Latest 5 Years \(Report\)](#)

[Total Imports by Province of Clearance - Latest 10 Years \(Report\)](#)

[Total Imports from Selected Areas - Latest 5 Years \(Chart\)](#)

[Total Imports from the U.S. by State of Origin - Latest 5 Years \(Report\)](#)

[Total Imports by Country of Origin - Year to Date vs. Previous Year to Date \(Report\)](#)

## Trade Balance

The **balance of trade** represents the difference between exports and imports of goods between the country (Canada) and one (or more) of its international trading partners.

**TRADE BALANCE = TOTAL EXPORTS - TOTAL IMPORTS**

If the country imports more goods than it exports, the trade balance is negative (*trade deficit*). If the country exports more goods than it imports, the trade balance is positive (*trade surplus*).

The following links request the **Trade Data Online** application to generate on-the-fly reports and charts using the latest available data from *Statistics Canada*.

[Trade Balance between Canada and Other Countries - Latest 5 Years \(Report\)](#)

[Trade Balance Between Canada and World \(Chart\)](#)

## Export Intensity

**Export intensity** is defined as the ratio of domestic exports to manufacturing shipments X 100. The more an industry is export oriented, the higher is this ratio.

**EXPORT INTENSITY = DOMESTIC EXPORTS / MANUFACTURING SHIPMENTS**

In **Trade Data Online**, export intensity is expressed as a percentage, i.e. as the % of manufacturing shipments exported abroad.

The following links request the **Trade Data Online** application to generate on-the-fly reports and charts using the latest available data from *Statistics Canada*.

[Export Intensity - Latest 10 Years \(Chart\)](#)

## Canadian Apparent Domestic Market

The **Canadian apparent domestic market** is calculated by adding manufacturing shipments to total imports and subtracting total exports.

**APPARENT DOMESTIC MARKET = MANUFACTURING SHIPMENTS + TOTAL IMPORTS - TOTAL EXPORTS**

The following links request the **Trade Data Online** application to generate on-the-fly reports and charts using the latest available data from *Statistics Canada*.

[Canadian Apparent Domestic Market - Latest 10 Years \(Chart\)](#)

Caution should be exercised when interpreting statistics relating to *apparent domestic market*. The reason it is called *apparent* and not *real* domestic market is due to at least two factors which can distort the results

1. Trade data are valued at the border on a commodity-by-commodity basis and may be different from the value at the plant gate due to such factors as freight, handling charges, third-party mark-ups and the like. In short, the value at the factory door may be lower than at the border and in some cases where a very larger proportion of the product is exported, it may appear as though one exports more than one produces. While this would appear illogical, it is not necessarily due to errors in recording.
2. Some large plants manufacture products classified to industries other than their own yet all of their plants output, for statistical purposes, is attributed to the industry to which it is classified. In this case, the market for a particular set of goods may be smaller than it appears to be.

### Other Customized Reports and Charts

The present section contains links to selected reports in **Trade Data Online** to illustrate the type of information that can be viewed. However, once you access the [Trade Data Online](#) application, you are free to customize the selections by changing parameters in the **main panel** above the reports.

The **main panel** allows you to select the trade type (imports, exports, trade balance, etc.), the time period (5 or 10 years, selected years, year to date etc.), the currency (Canadian or U.S. dollars), the domestic region (All Canada, provincial distribution, individual provinces etc.), the trading partners (world total, list of all countries, Top 10 trading partners, over 320 individual countries, predefined geographic areas, etc.) as well as selected the NAICS codes.

Data are available from 1992 to present for primary industries (e.g. agriculture, forestry, fishing, mining, oil and gas extraction etc.) as well as manufacturing industries. In addition to printing the reports or graphs, **Trade Data Online** also allows you to download the underlying data in comma-delimited (CSV) format, to bookmark reports and charts and to save customized collections of reports for future use.

---

## Chapter 9: Data Tables Wood Product Manufacturing (NAICS 321)

This section presents in tabular format the key data obtained from Statistics Canada's [Annual Survey of Manufacturers \(ASM\)](#) for Canada's **Wood Product Manufacturing (NAICS 321)** subsector from 1990 to 1999.

<b>Establishments and Employment Number</b>				
<b>Year</b>	<b>Active Establishments</b>	<b>Production Employees</b>	<b>Administrative Employees</b>	<b>All Employees</b>
1990	2,653	89,045	15,285	104,330
1991	2,409	77,157	14,205	91,362
1992	2,285	80,952	14,584	95,536
1993	2,202	85,769	16,027	101,796
1994	2,206	92,514	16,734	109,248
1995	2,237	93,952	15,978	109,930
1996	2,448	97,534	17,439	114,973
1997	2,350	103,115	16,945	120,060
1998	2,326	105,905	17,367	123,272
1999	2,144	125,177	19,585	144,762

**Source:** *Statistics Canada, Annual Survey of Manufactures*

<b>Total Wages and Salaries Paid (\$ billions)</b>			
<b>Year</b>	<b>Production Employees</b>	<b>Administrative Employees</b>	<b>All Employees</b>
1990	2.6	0.7	3.3
1991	2.4	0.6	3.0
1992	2.6	0.6	3.2
1993	2.8	0.7	3.5
1994	3.1	0.8	3.9
1995	3.3	0.8	4.1
1996	3.4	0.8	4.2
1997	3.6	0.9	4.5
1998	3.6	0.9	4.5
1999	4.2	1.1	5.3

**Source:** *Statistics Canada, Annual Survey of Manufactures*

Totals may not add perfectly due to rounding

<b>Average Annual Salary per Employee (\$ per year)</b>

Year	Production Employees	Administrative Employees	All Employees
1990	29,665	42,557	31,554
1991	30,897	42,013	32,625
1992	31,719	43,415	33,504
1993	32,639	43,648	34,372
1994	33,583	46,531	35,566
1995	35,091	49,048	37,120
1996	34,779	47,656	36,732
1997	34,875	51,586	37,234
1998	33,738	53,383	36,505
1999	33,329	55,726	36,359

**Source:** *Statistics Canada, Annual Survey of Manufactures*

**Manufacturing Output and Revenues  
(\$ billions)**

Year	Manufacturing Shipments	Manufacturing Value-added	Total Revenues
1990	14.1	5.2	14.8
1991	12.6	4.6	13.1
1992	14.5	5.7	15.0
1993	18.5	7.9	19.1
1994	22.3	9.7	23.0
1995	22.6	8.5	23.3
1996	24.0	9.2	24.7
1997	26.0	9.7	27.0
1998	26.0	9.7	27.6
1999	29.8	12.3	32.0

**Source:** *Statistics Canada, Annual Survey of Manufactures*  
Totals may not add perfectly due to rounding

**Total Hours Worked by Production Worker  
(millions)**

Year	Hours Worked per Year
1990	185.0
1991	161.5
1992	168.1
1993	177.1
1994	193.1

<b>Total Hours Worked by Production Worker (millions)</b>	
<b>Year</b>	<b>Hours Worked per Year</b>
1995	200.7
1996	204.6
1997	214.5
1998	221.6
1999	268.5

**Source:** *Statistics Canada, Annual Survey of Manufactures*

<b>Cost of Materials and Supplies (\$ billions)</b>			
<b>Year</b>	<b>Manufacturing Activity</b>	<b>Non-Manufacturing Activity</b>	<b>Total</b>
1990	8.5	0.6	9.1
1991	7.6	0.5	8.0
1992	8.5	0.4	8.9
1993	10.3	0.5	10.8
1994	12.3	0.7	13.0
1995	13.7	0.6	14.3
1996	14.4	0.6	15.0
1997	15.8	0.9	16.7
1998	15.7	1.9	17.6
1999	16.9	1.6	18.5

**Source:** *Statistics Canada, Annual Survey of Manufactures*  
Totals may not add perfectly due to rounding

<b>Cost of Fuel and Electricity (\$ millions)</b>	
<b>Year</b>	<b>Cost of Energy</b>
1990	394.4
1991	382.9
1992	426.9
1993	454.9
1994	509.3
1995	527.8
1996	563.5
1997	614.4
1998	637.8

<b>Cost of Fuel and Electricity (\$ millions)</b>	
<b>Year</b>	<b>Cost of Energy</b>
1999	687.2

**Source:** *Statistics Canada, Annual Survey of Manufactures*

---

Industry Canada, Updated: 2003-01-30

