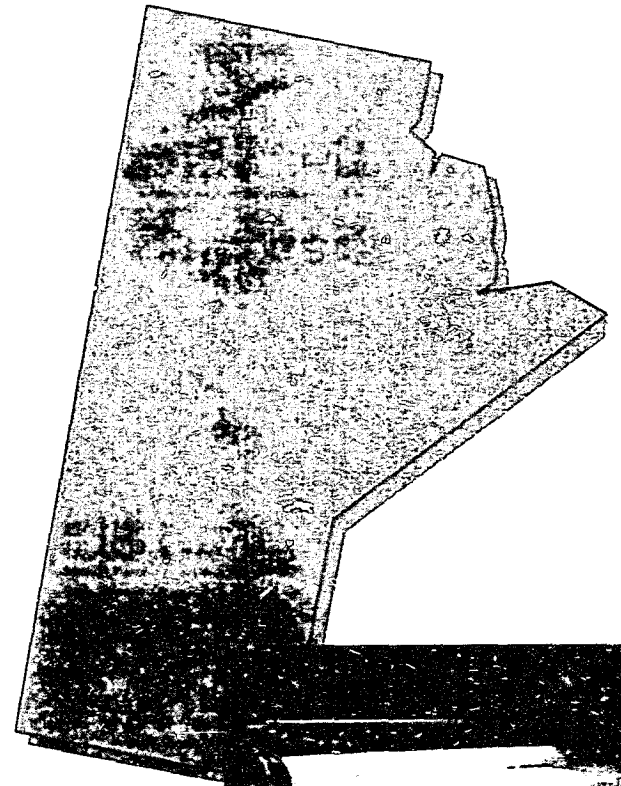
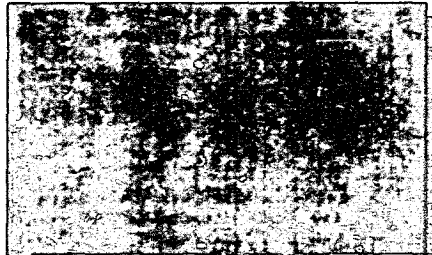
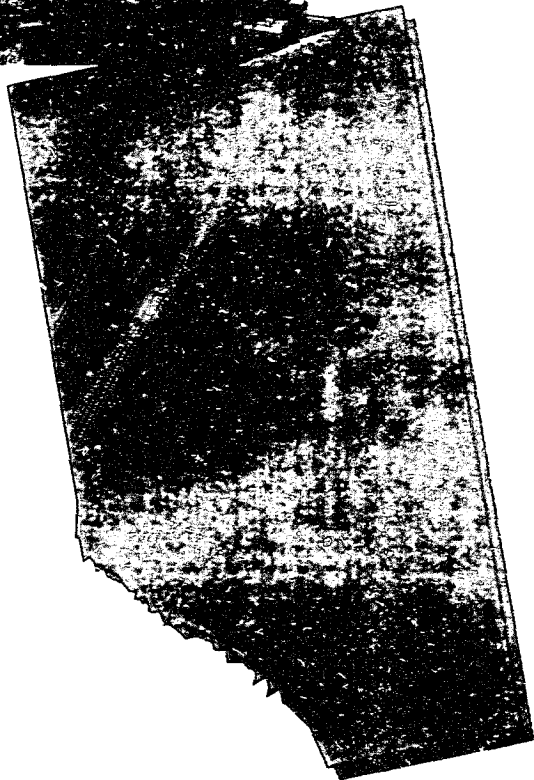
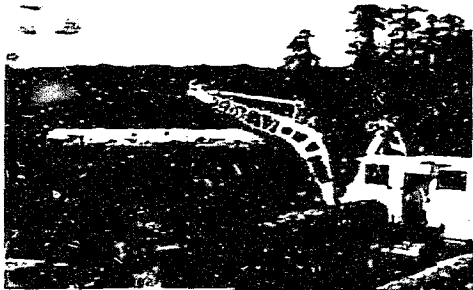


Prairie Forest Products: *An Industry Profile*



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Scope of the Profile

- The Prairie Forest Products Profile examines a variety of key indicators to determine the overall importance of the Forest Products Industry within Manitoba, Saskatchewan and Alberta.
- The Forest Products Industry operates to varying degrees in all regions of the country. In 1996, forest products contributed over \$13 billion to national GDP. Industry activity is strongest in British Columbia and Quebec, which together accounted for over half of all forest products shipments in 1996.
- The Forest Products Industry is composed of two major groups: the Wood Industry (*SIC 25) and the Paper & Allied Products Industry (SIC 27). Both are examined in this profile.
- The Wood Industry consists of three distinct segments: primary products, semi-finished products and finished products.
- The Paper & Allied Products Industry is made up of two distinct segments: pulp and paper, which includes market pulp and newsprint, and converted paper products.
- Due to statistical confidentiality restrictions, not all information could be presented for all indicators in the various provinces examined.

* SIC (Standard Industrial Classification), an acronym which is used throughout the profile, is a system used to classify industries and data about industry activity in our economy

Executive Summary

- The Forest Products Industry comprises nearly 13% of national manufacturing GDP. On a provincial level, the industry is relatively more important in British Columbia, with almost half of the province's manufacturing GDP made up by forest products activity. In 1996, national forest products shipments totaled \$53 billion with British Columbia and Quebec accounting for over half of this value.
- Although small in comparison to either British Columbia or Quebec, the Forest Products Industry makes up an important part of the Prairie provincial economies.
- **Prairie** forest products shipments totaled \$4.5 billion in 1996, up \$260 million from 1995. Prairie shipments accounted for 8.5% of national industry shipments in 1996.
- The industry employed over 18,000 workers in the Prairies in 1995, an increase of almost 1,000 jobs from 1994.
- In 1995, the Prairie Forest Products Industry realized \$2.6 billion in valued added. Further, from 1988 to 1995, industry value added increased by 55% in Manitoba, 107% in Saskatchewan and 216% in Alberta.
- Prairie forest products exports were strong in 1996, totaling \$2.8 billion. The Prairies accounted for 7% of national exports during this period. As with Canada as a whole, the United States is the primary export market for Prairie forest products.
- **Alberta** dominates Prairie Forest Products Industry activity. In 1996, Alberta's Forest Products Industry produced shipments valued at \$3.5 billion. Alberta alone accounts for 77% of Prairie forest products shipments and 67% of Prairie industry employment.
- Within the Forest Products Industry, Alberta produced wood shipments valued at \$1.8 billion and paper & allied products shipments valued at \$1.7 billion in 1996. From 1991 to 1996, both industries experienced strong shipments growth, increasing by 106% and 83% respectively. Paper & allied products shipments growth for Alberta was highest in the nation over this period.
- **Manitoba's** Forest Products Industry is also experiencing significant growth. The value of industry shipments totaled \$807 million in 1996, up nearly \$50 million from 1995. Wood shipments totaled \$391.5 million in 1996, up \$68 million from 1995, while paper & allied products shipments fell to \$415.8 million in 1996, down nearly \$20 million from 1995. Between 1991 and 1996, the value of wood shipments increased by 111% and paper & allied products shipments grew by 69%.
- An analysis of **Saskatchewan's** Forest Products Industry is hindered in part by data availability resulting from confidentiality restrictions. As such, the data presented best supports a detailed examination of Saskatchewan's Wood Industry. Wood shipments totaled \$230.7 million in 1996. Between 1991 and 1996, the value of wood shipments grew by 127%, the highest level of growth among all provinces during this period.
- Although information is limited for Saskatchewan's Paper & Allied Products Industry, available trade statistics provide a useful indication of industry size and growth. The value of industry exports totaled \$401 million in 1996, up 305% from 1991 export values.

The Prairie Forest Products Industry at a glance.

Prairie Forest Products Industry - 1996* Economic Indicators

	Manitoba	Saskatchewan	Alberta
Total Manufacturing Gross Domestic Product (constant 1986 \$ millions)	\$2,272	\$1,229.3	\$7,351.2
Forest Products as a % of Manufacturing GDP	10.4%	**5.9%	13.1%
Shipments (millions)	(\$807.3)	**\$230.7	\$3,466.6
Shipments as a % of National Forest Products Shipments	1.5%	**0.4%	6.5%
Shipments % Growth (1991 to 1996)	87.2%	**127.1%	93.7%
Employment (1995)	4,807	**1,345	12,483
Forest Products as a % of Total Provincial Manufacturing Employment	9.2%	**5.9%	12.6%
Establishments (1995)	88	54	236
Exports (\$ millions)	\$410.3	\$401	\$1,961.9
Exports % Growth (1991 to 1996)	142.2%	305.4%	172.7%
Primary Export Market	United States	United States	United States
Value Added (1995 - \$ millions)	\$377	**\$125.2	\$2,162.9
Value Added % Growth (1988 to 1995)	54.5%	**106.6%	216%
Forest Products Labour Productivity Real GDP/Worker (1995)	\$44,560	**\$48,104	\$71,536

Source: Statistics Canada, Industry Canada

* 1996 unless otherwise indicated

**Due to confidentiality, only Wood Industry values are included

A snapshot of the Forest Products Industry's two major components - Wood and Paper & Allied Products.

Wood and Paper & Allied Products Industries - 1996* Economic Indicators

	Wood			Paper & Allied Products		
	Manitoba	Saskatchewan	Alberta	Manitoba	Saskatchewan	Alberta
Gross Domestic Product (constant 1986 \$ millions)	\$111.5	\$72.6	\$515.2	\$124.3	X	\$444.8
Shipments (\$ millions)	\$391.5	\$230.7	\$1,759.2	\$415.8	X	\$1,707.4
Shipments as a % of National Industry Shipments	1.7%	1%	7.7%	1.4%	X	5.6%
Shipments % Growth (1991 to 1996)	110.9%	127.1%	105.6%	69.2%	X	82.2%
Employment (1995)	2,960	1,345	8,668	1,847	X	3,815
Employment as a % of Total Provincial Forest Products Employment	61.6%	X	69.4%	38.4%	X	30.6%
Establishments (1995)	64	48	202	24	6	34
Exports (\$ millions)	\$174.2	\$130.	\$941.7	\$236.1	\$270.9	\$1,020.2
Exports % Growth (1991 to 1996)	158.5%	486%	310.1%	131.5%	56.6%	108.3%
Primary Export Market	United States	United States	United States	United States	United States	United States
Value Added (1995 - \$ millions)	\$136.8	\$125.2	\$857.3	\$240.2	X	\$1,305.6
Value Added % Growth (1988 to 1995)	47.1%	106.6%	151.8%	59.1%	X	279.5%
Labour Productivity GDP/Worker (1995)	Real \$31.520	\$48.104	\$52.884	\$65.457	X	\$114.102

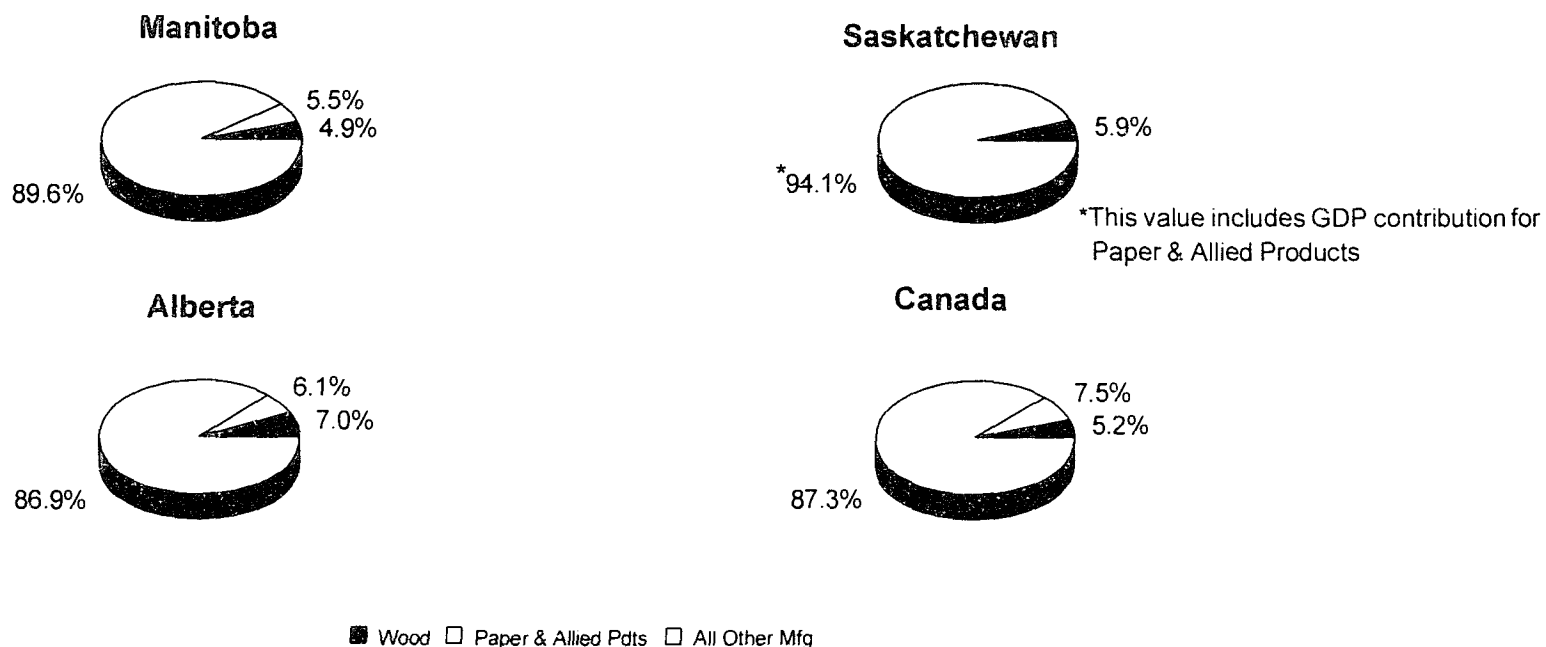
Source: Statistics Canada, Industry Canada

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* 1996 unless otherwise indicated

The Forest Products Industry accounts for over 10 per cent of manufacturing GDP in the Prairies.

Forest Products Industry as a % of Provincial Manufacturing GDP - 1996

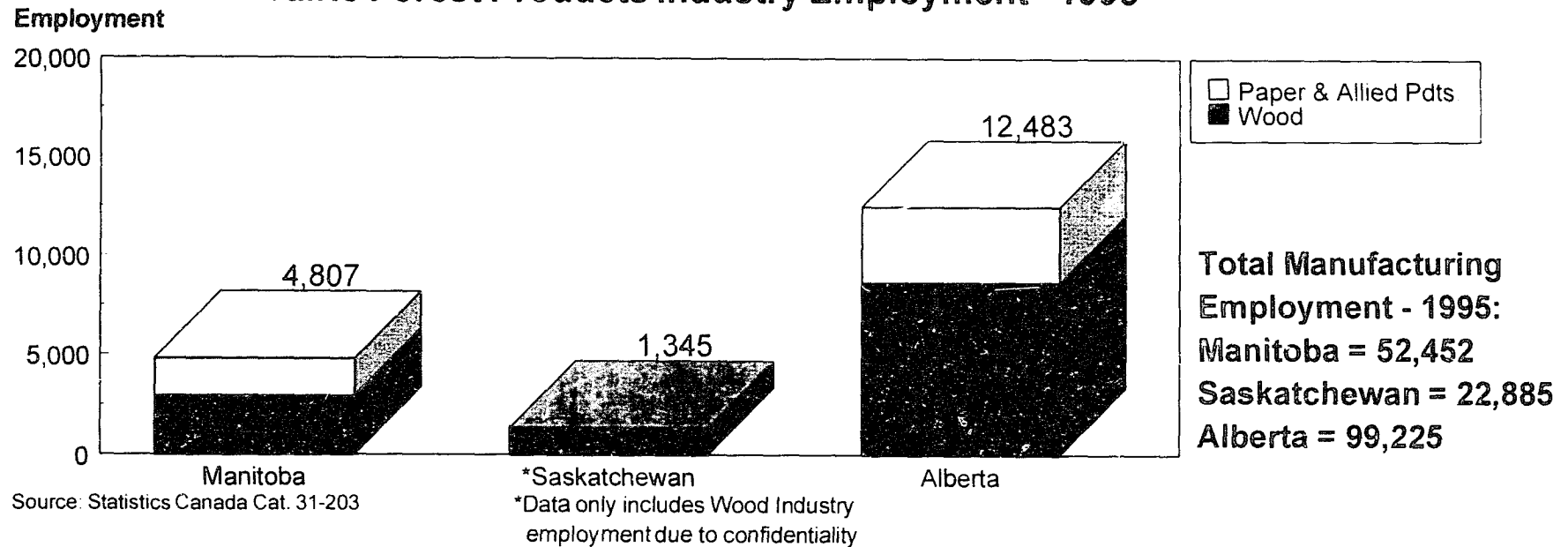


Source: Statistics Canada (Ivision)

- In Canada, the contribution of forest products to total provincial manufacturing GDP is highest in British Columbia (43%). For Manitoba and Alberta, the manufacturing GDP contribution of the industry is similar to that of the national average (12.7%).
- From 1991 to 1996, forest products GDP grew by 64% in Manitoba and 46% in Alberta, both well above the national increase of 14% for forest products GDP over this period. For Alberta, the strongest source of growth has come from the Paper & Allied Products Industry with GDP contribution increasing by almost 100% between 1991 and 1996. In Manitoba, the Wood Industry has been the source of most of the Forest Products Industry's growth, with GDP increasing by nearly 75% over this period.
- Due to confidentiality, only Saskatchewan's Wood Industry GDP contribution can be reported. In 1996, the Wood Industry comprised 6% of manufacturing GDP. Wood Industry GDP has grown by over 85% between 1991 and 1996.

Alberta leads the Prairies in terms of total Forest Products Industry employment...

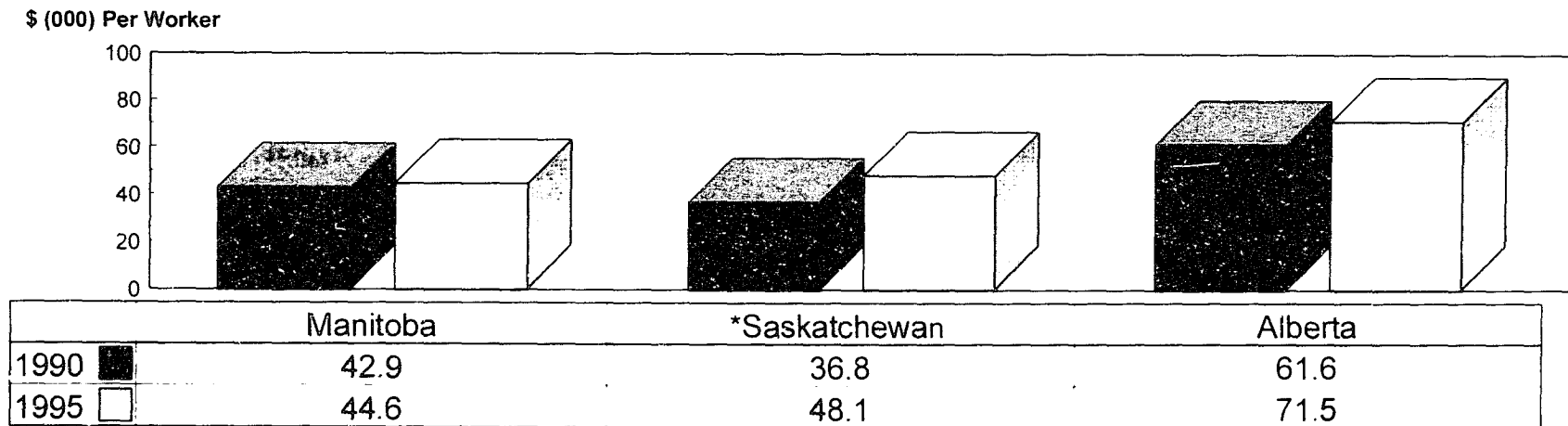
Prairie Forest Products Industry Employment - 1995



- In total, the Prairies employed nearly 19,000 people in the Forest Products Industry in 1995. Alberta accounted for the largest portion, employing almost 12,500. Forest products employment accounted for over 12% of Alberta's manufacturing employment in 1995.
- In Manitoba, the Forest Products Industry employed over just over 4,800 people in 1995, corresponding to 9% of total manufacturing employment in the province for that year.
- Due to confidentiality, only Saskatchewan's Wood Industry employment figures are available. In 1995, 1,345 people were employed in the Wood Industry. This industry alone accounted for 6% of provincial manufacturing employment.
- Note: The above information is based on Statistic Canada data. According to Natural Resources Canada, the Forest Products Industry directly employed 23,000 people in Alberta, 8,000 Manitoba and 6,000 in Saskatchewan in 1995 (the differences arise from the inclusion of employment in logging, silviculture and other related industry activities).

...and labour productivity.

Forest Products Industry Labour Productivity - 1990 vs. 1995
(Real GDP per Worker)



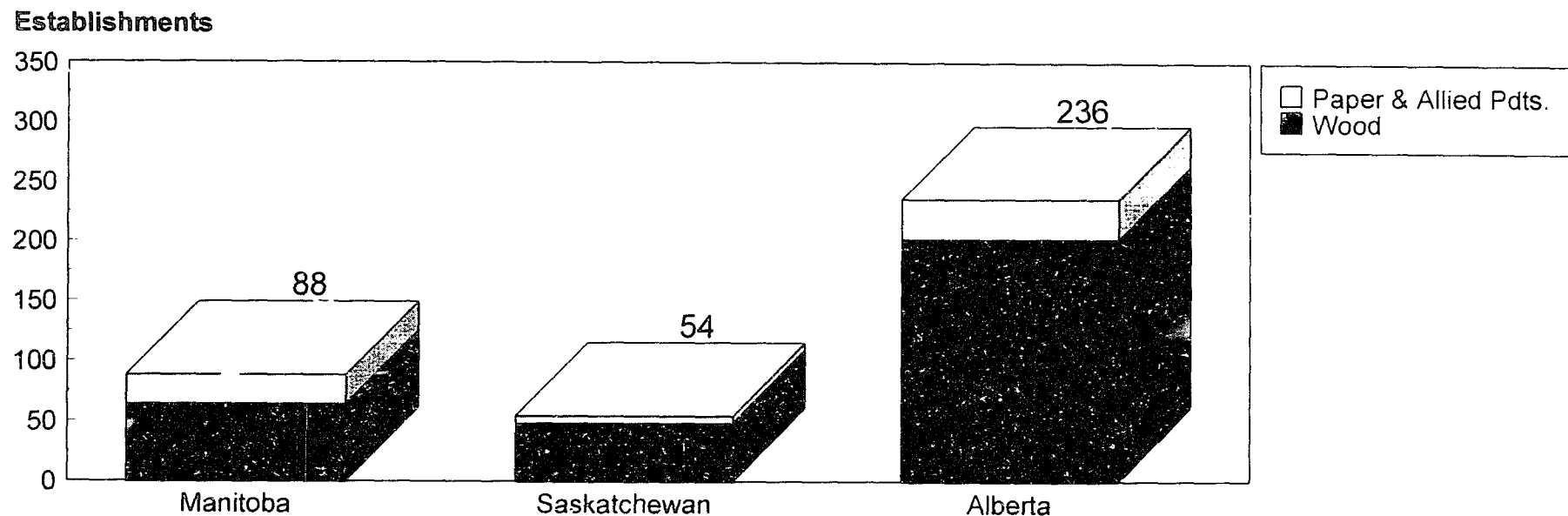
Source: Statistics Canada Cat. 31-203 and 15-203

*Data only includes Wood Industry labour productivity due to confidentiality

- In 1995, labour productivity in the Alberta Forest Products Industry totaled \$71,500 per worker. Labour productivity for the industry has grown 16% between 1990 and 1995. Labour productivity is especially strong in Alberta's Paper & Allied Products Industry.
- With 1995 Forest Products Industry labour productivity totaling \$44,600, Manitoba has experienced relatively more stable labour productivity levels over the first half of the 1990s.
- Due to confidentiality, only Saskatchewan's Wood Industry labour productivity can be determined. Growing by over 30% since 1990, Saskatchewan's Wood Industry labour productivity reached \$48,100 per worker in 1995.

Throughout the Prairies, the number of Forest Products establishments is highest among the Wood Industries.

Forest Products Industry Establishments - 1995



Source: Statistics Canada Cat. 31-203

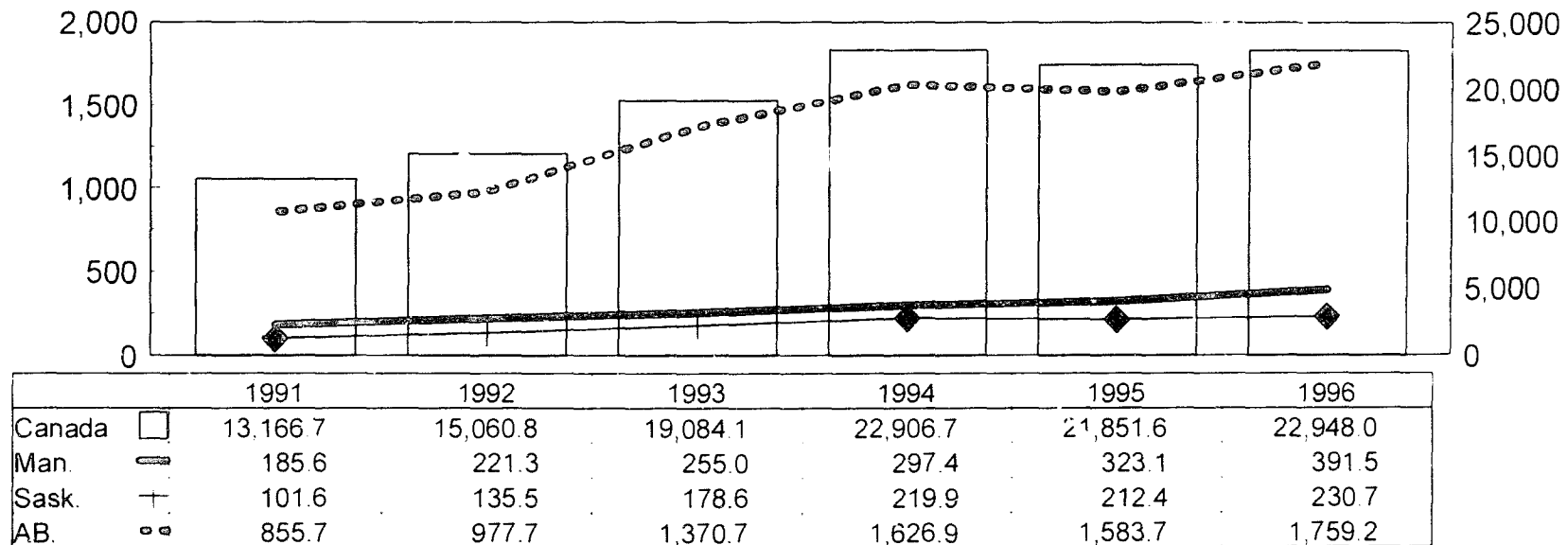
- Like employment, the number of Forest Products Industry establishments in Alberta (236) nearly doubles that of Manitoba (88) and Saskatchewan (54) combined.
- In all three Prairie provinces, the number of Wood Industry establishments significantly outnumbers Paper & Allied Products Industry establishments. In Saskatchewan, Wood Industry establishments account for nearly 90% of all Forest Products Industry establishments. In Manitoba and Alberta, Wood Industry establishments comprise 73% and 86% of Forest Products Industry establishments respectively. The asymmetric establishment distribution is due in part to the large-scale nature of many Paper & Allied Products Industry operations.
- Of the 54 Forest Products Industry establishments in Saskatchewan, the Paper & Allied Products Industry account for only six. Of the six, Millar Western Ltd. (Meadow Lake - pulp), and Weyerhaeuser Canada Ltd. (Prince Albert - pulp and paper), account for the majority of the industry's activity.

Across the Prairies, the value of wood shipments is on the rise...

Wood Shipments, 1991 to 1996

Prov. Shipments \$ (Millions)

Can. Shipments \$ (Millions)



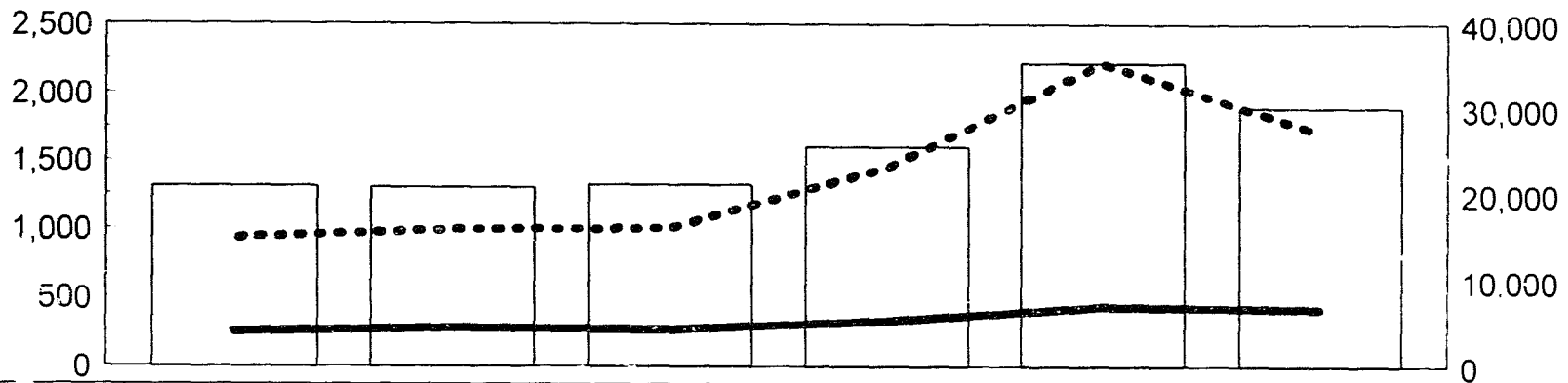
Source: Statistics Canada (Ivision)

- Although the value of wood shipments has leveled off in recent years, there has been significant growth in shipment value, both on a national and provincial level, since 1991.
- Highest within the Prairie provinces, Alberta wood shipments totaled over \$1.7 billion in 1996, up \$176 million from 1995.
- Manitoba is the only province in the Prairies that did not see a decline in the value of wood shipments in 1995. Following a steady increase since 1991, wood shipments totaled nearly \$400 million in 1996.
- Reaching over \$230 million in 1996, Saskatchewan wood shipment values are up nearly \$20 million from 1995.

...while paper & allied products shipments are declining slightly.

Paper & Allied Products Shipments, 1991 to 1996

Prov. Shipments \$ (Millions) Can. Shipments \$ (Millions)



	1991	1992	1993	1994	1995	1996
Canada 	21,003.4	20,832.2	21,500.6	25,647.8	35,470.0	30,257.5
Man. 	245.6	272.6	267.4	328.9	434.3	415.8
Sask. +	X	X	X	X	X	X
AB. 	934.0	996.4	1,002.7	1,450.6	2,215.5	1,707.4

Source: Statistics Canada (Ivision)

X - Data unavailable due to confidentiality

- Compared to 1995 values, paper & allied products shipment values declined significantly in 1996, in both the Prairies and Canada as a whole.
- The drop can in large part be attributed to unstable and declining prices throughout the industry in 1996. Over the year, pulp prices fell by nearly 50%, decreasing from over \$1000(CDN)/tonne to \$480(CDN)/tonne. However, pulp prices began to climb over the last quarter of 1996, increasing to around \$560(CDN)/tonne by year end.

The Prairies comprise 10 per cent of Canadian wood shipments, with Alberta contributing the largest portion...

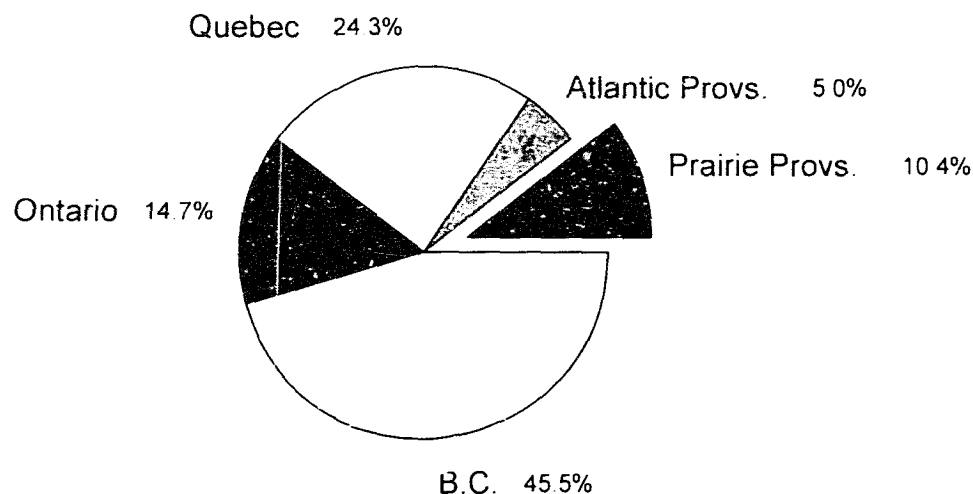
Canadian Wood Shipments by Region - 1996

Prairie Breakdown:

Manitoba = 1.7%

Saskatchewan = 1.0%

Alberta = 7.7%



Total Canadian Shipments = \$ 22,948 million

Source: Statistics Canada (ivision)

- B.C. alone accounts for almost half of all Canadian wood shipments.
- Prairie wood shipments, totaling \$2,381.4 million, comprised just over 10% of the national total in 1996.
- Alberta made up the largest portion of the Prairie contribution to Canadian wood shipments in 1996 (7.7%).

...a trend that also exists with Canadian paper & allied products shipments.

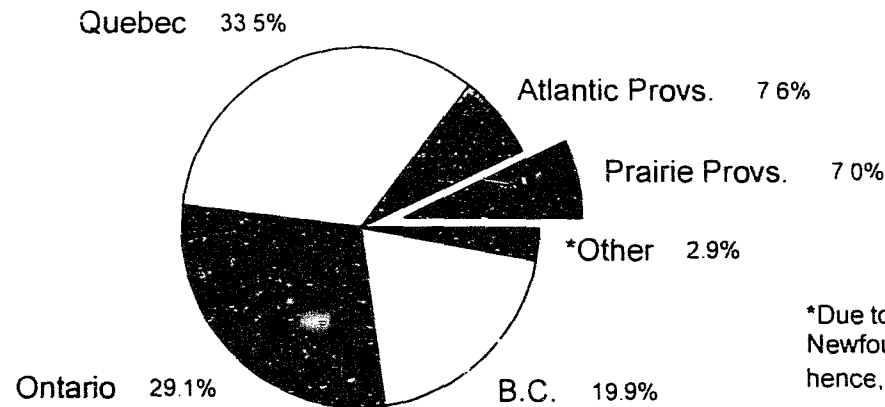
Canadian Paper & Allied Products Shipments by Region - 1996

Prairie Breakdown:

Manitoba = 1.4%

Alberta = 5.6%

Saskatchewan = *N/A



*Due to confidentiality, Saskatchewan, PEI and Newfoundland values are not separated out and hence, are represented in the "Other" portion

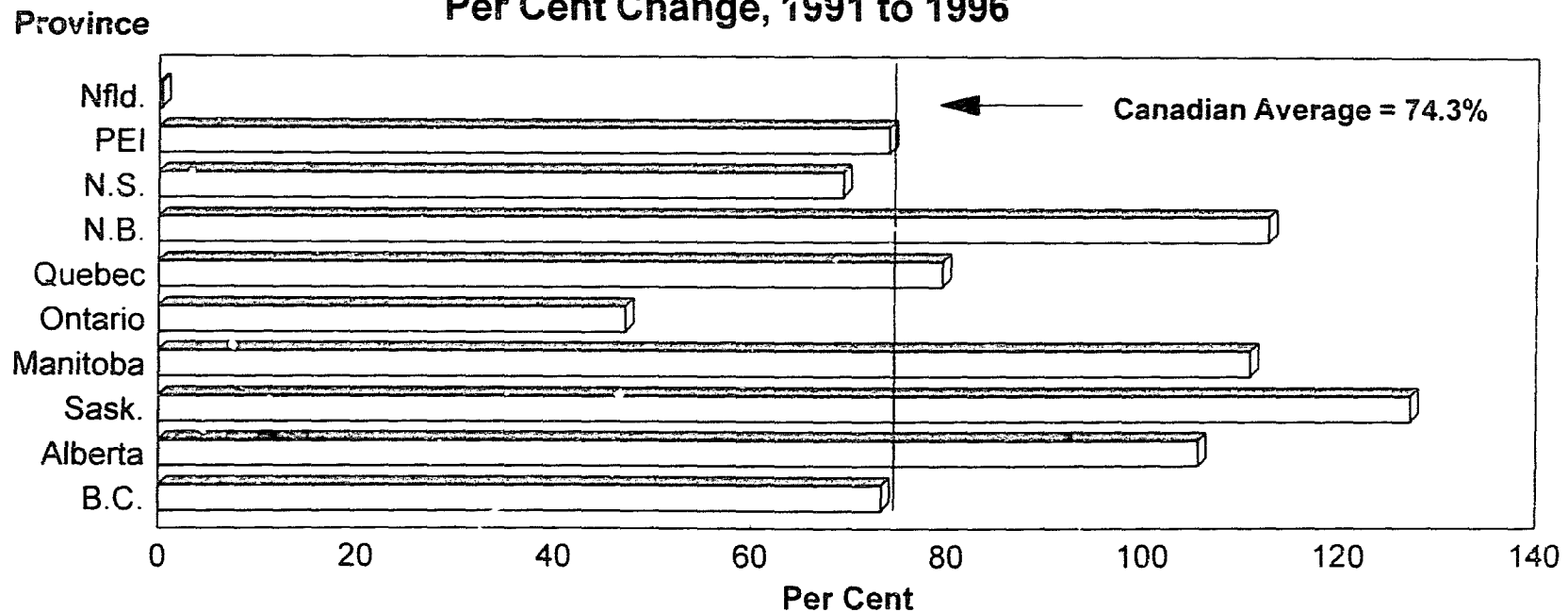
Total Canadian Shipments = \$ 30,257 million

Source: Statistics Canada (Ivision)

- Compared to wood shipments, paper & allied products shipments are more evenly distributed between Quebec, Ontario and B.C., which in combination, account for over 80% of national shipments.
- In 1996, the Prairie provinces accounted for at least 7% of national paper & allied products shipments (due to confidentiality, Saskatchewan's contribution is unknown).
- Similar to wood shipments, Alberta made up the majority of the Prairie region's contribution to Canadian paper & allied products shipments in 1996 (5.6%).

Saskatchewan leads the nation based on growth in the value of wood shipments...

Growth in the Value of Wood Shipments
Per Cent Change, 1991 to 1996

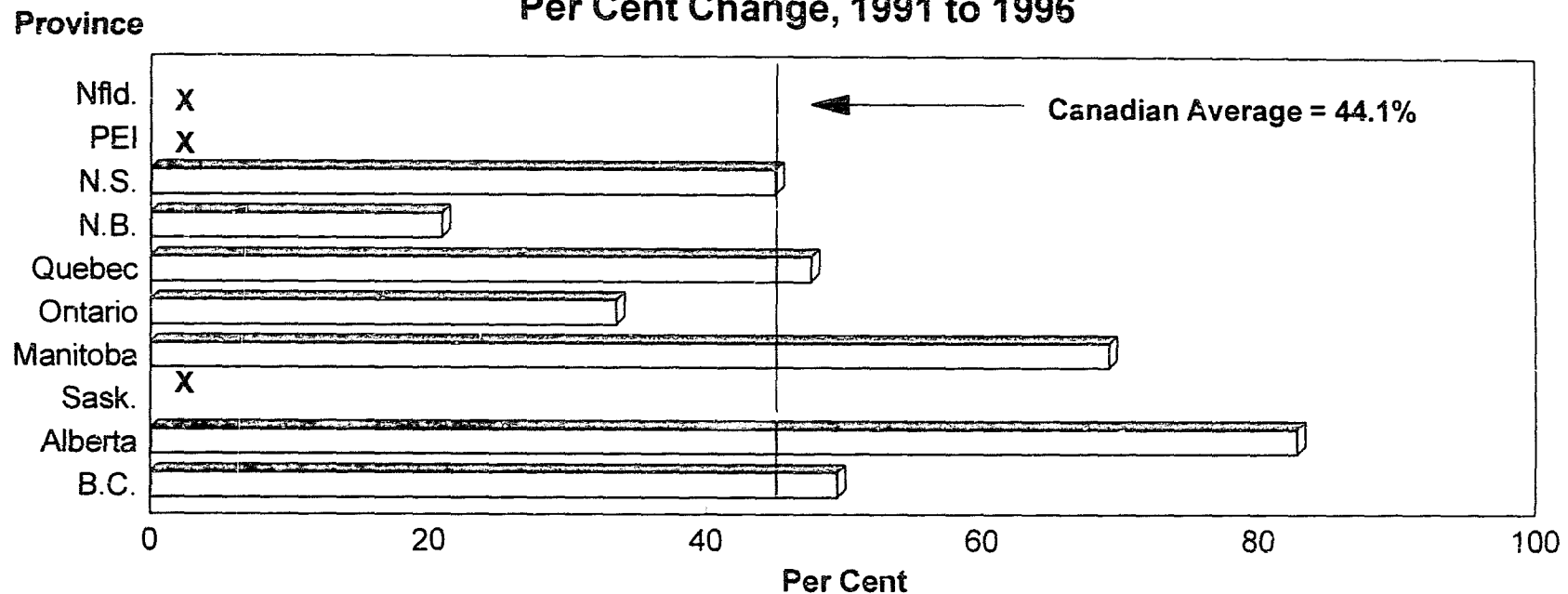


Source: Statistics Canada (Ivision)

- Significant growth has occurred in the value of wood shipments, particularly in the Prairie region.
- With an increase of 127%, Saskatchewan recorded the largest increase of all provinces in the value of wood shipments between 1991 and 1996.
- Both Manitoba and Alberta are behind only Saskatchewan and New Brunswick, with the value of wood shipments growing 111% and 106% respectively, between 1991 and 1996.

...while Alberta and Manitoba lead the country based on growth of paper & allied products shipments.

**Growth in the Value of Paper & Allied Products Shipments
Per Cent Change, 1991 to 1996**



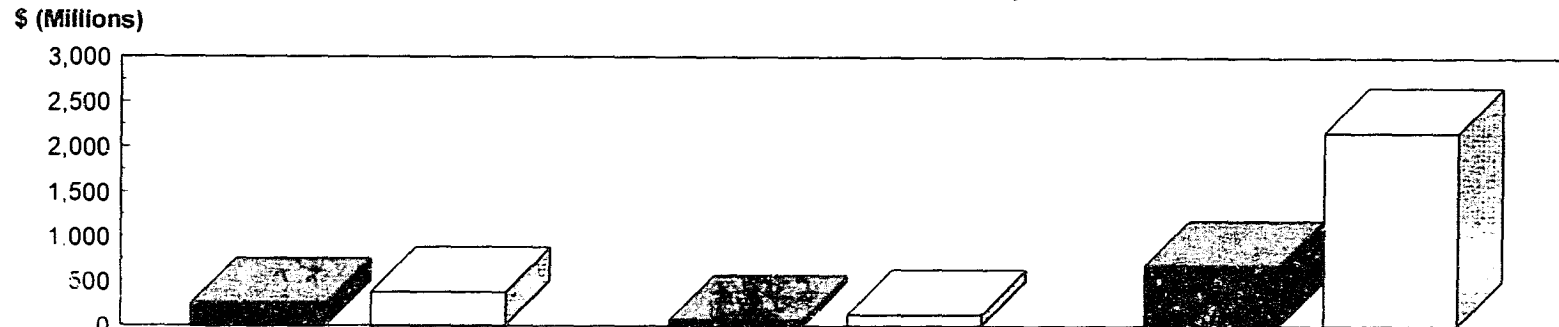
Source: Statistics Canada (Ivision)

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- Despite declining shipment values in 1996, significant growth is occurring in the Paper & Allied Products Industry, especially Manitoba and Alberta, which recorded increases in shipment value well above the national average.
- Alberta, with the greatest growth among all provinces, saw an increase of 83% in the value of paper & allied products shipments between 1991 and 1996.
- Following close behind, and second in the nation, Manitoba paper & allied products shipments grew by 69% from 1991 to 1996.

Although most apparent in Alberta, the Forest Products Industry adds value throughout the Prairies...

Prairie Forest Products Value Added, 1988 vs. 1995



	Manitoba	*Saskatchewan	Alberta
1988	244.0	60.6	684.5
1995	377.0	125.2	2,162.9

Source: Statistics Canada Cat. 31-203

*Paper & Allied Products value added is not included

- Note: Forest Products Industry value added essentially captures the difference between the value of industry sales (shipments) and the value of industry purchases (inputs, fuel etc.).
- Since 1988, forest products value added has increased significantly in all three Prairie provinces. Between 1988 and 1995, Alberta recorded the largest increase in value added (216%), followed by Saskatchewan (106.6%) and Manitoba (54.5%).
- Value added is both a major challenge and opportunity for Forest Products Industry expansion, retention and attraction as it encompasses further processing, handling etc., of goods within a province.

...in both the Wood and Paper & Allied Products Industries.

Prairie Forest Products Value Added & Percentage Growth by Industry, 1988 - 1995

(Units in \$ millions)

SIC	Description	Manitoba			Saskatchewan			Alberta		
		1988	1995	% Change	1988	1995	% Change	1988	1995	% Change
25	Wood	93.0	136.8	47.1%	60.6	125.2	106.6%	340.5	857.3	151.8%
27	Paper & Allied Pds.	151.0	240.2	59.1%	X	X	X	344.0	1305.6	279.5%

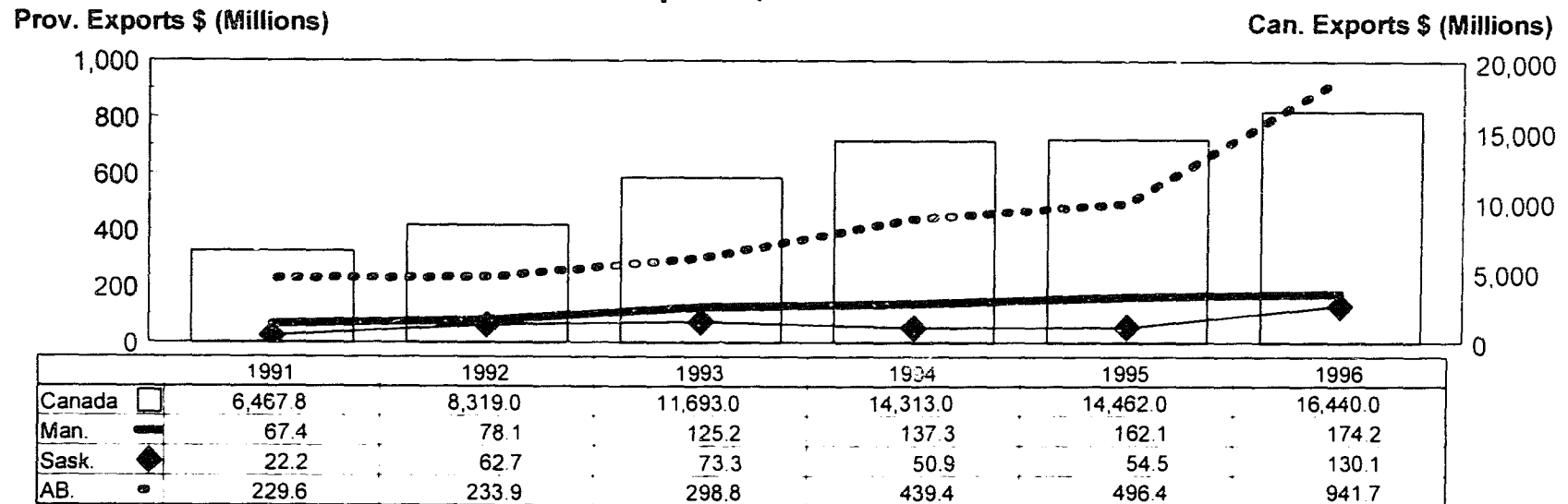
Source: Statistics Canada Cat. 31-203

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- Alberta's growth in value added between 1988 and 1995 has been significant throughout the Forest Products Industry. Wood Industry value added rose by nearly 152% over this period while Paper & Allied Products Industry value added increased by 280%.
- From 1988 to 1995, Manitoba has seen large increases in both Paper & Allied Products (59.1%) and Wood (47.1%) Industry value added.
- Saskatchewan has had extremely strong growth in Wood Industry value added (106.6%) during this period. Confidentiality does not permit an analysis of provincial Paper & Allied Products Industry value added.

Similar to the trend with shipments, wood export values are on the rise in the Prairies...

Wood Exports, 1991 to 1996

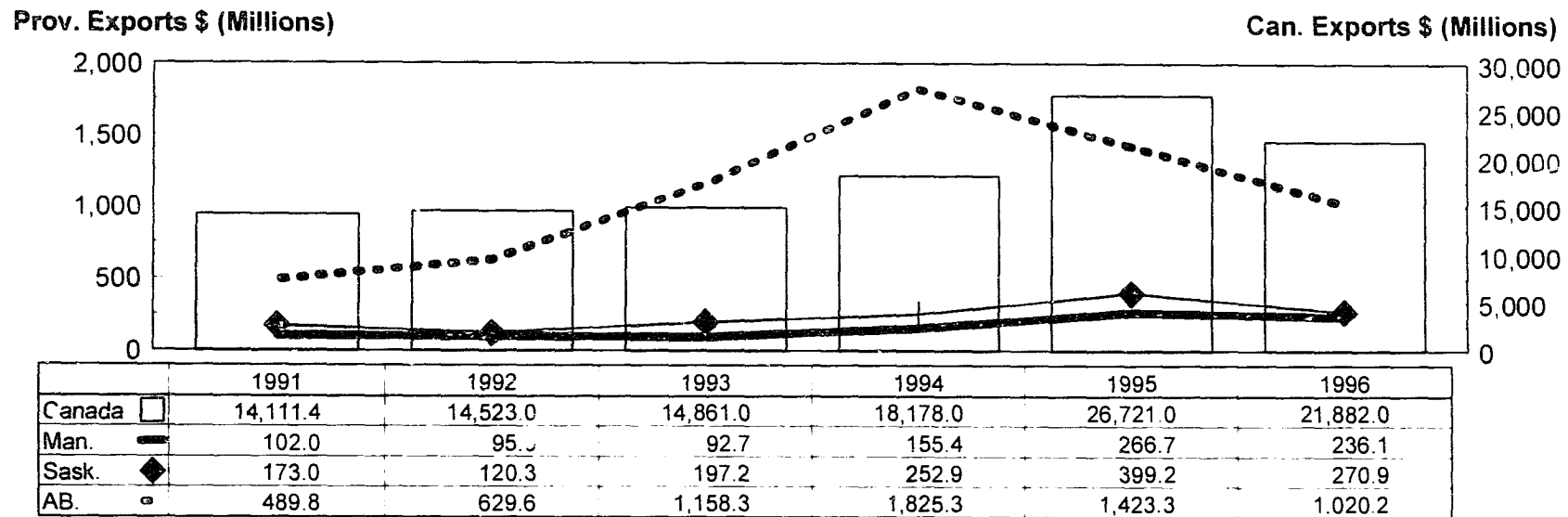


Source: Industry Canada (Strategis)

- The value of wood exports continues to rise in the Prairies, as well as in Canada as a whole.
- Although Alberta tops the Prairies based on total value of wood exports (\$941.7 million), Saskatchewan's wood exports, which reached over \$130 million in 1996, have shown the largest growth, increasing by an enormous 486% since 1991.
- Both Manitoba and Alberta have had large increases in the value of wood exports as well during this period, with increases of 159% and 310% respectively.

...while the value of paper & allied products exports has declined.

Paper & Allied Products Exports, 1991 to 1996

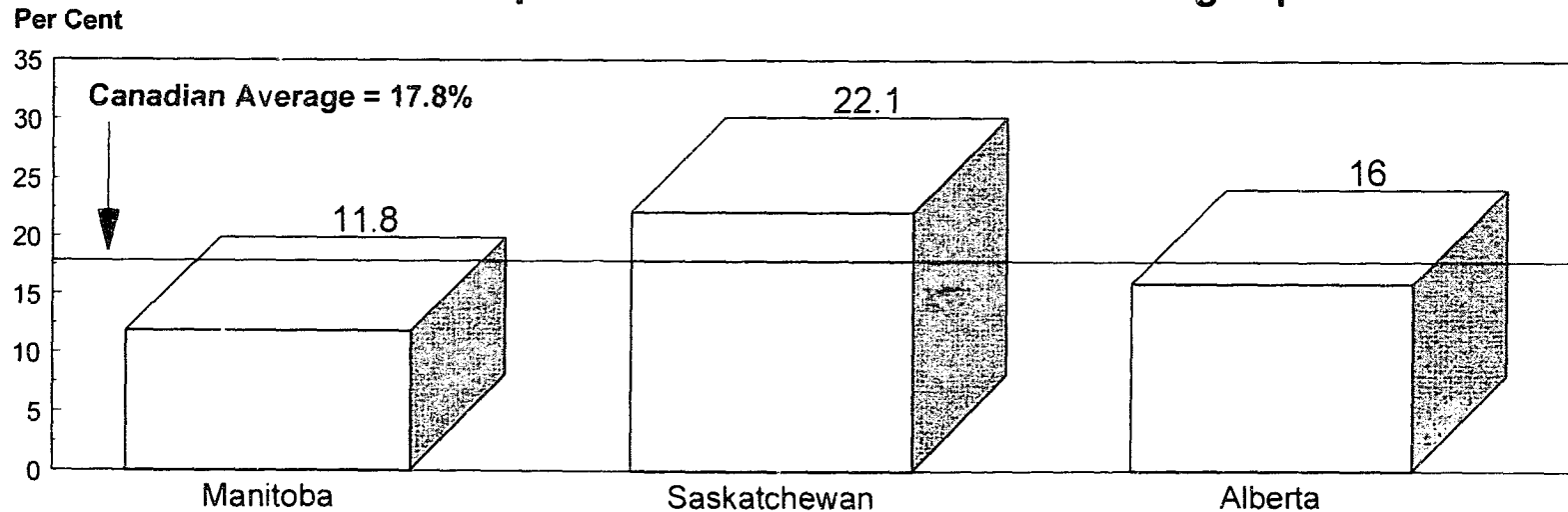


Source: Industry Canada (Strategis)

- Similar to the trend seen with shipments, paper & allied products export value has recently declined in response to falling pulp prices.
- Alberta, which began to see export values decline in 1994, recorded 1996 paper & allied products exports valued at just over \$1 billion, while Saskatchewan and Manitoba paper & allied products exports totaled \$270 million and \$236 million respectively.
- Despite the recently declining value of exports, growth in the industry is strong. Manitoba recorded the largest increase in Prairie paper & allied products exports activity (131.5%) between 1991 and 1996, followed by Alberta (108.3%) and Saskatchewan (56.6%).

Forest products account for a significant portion of manufacturing exports in the Prairies.

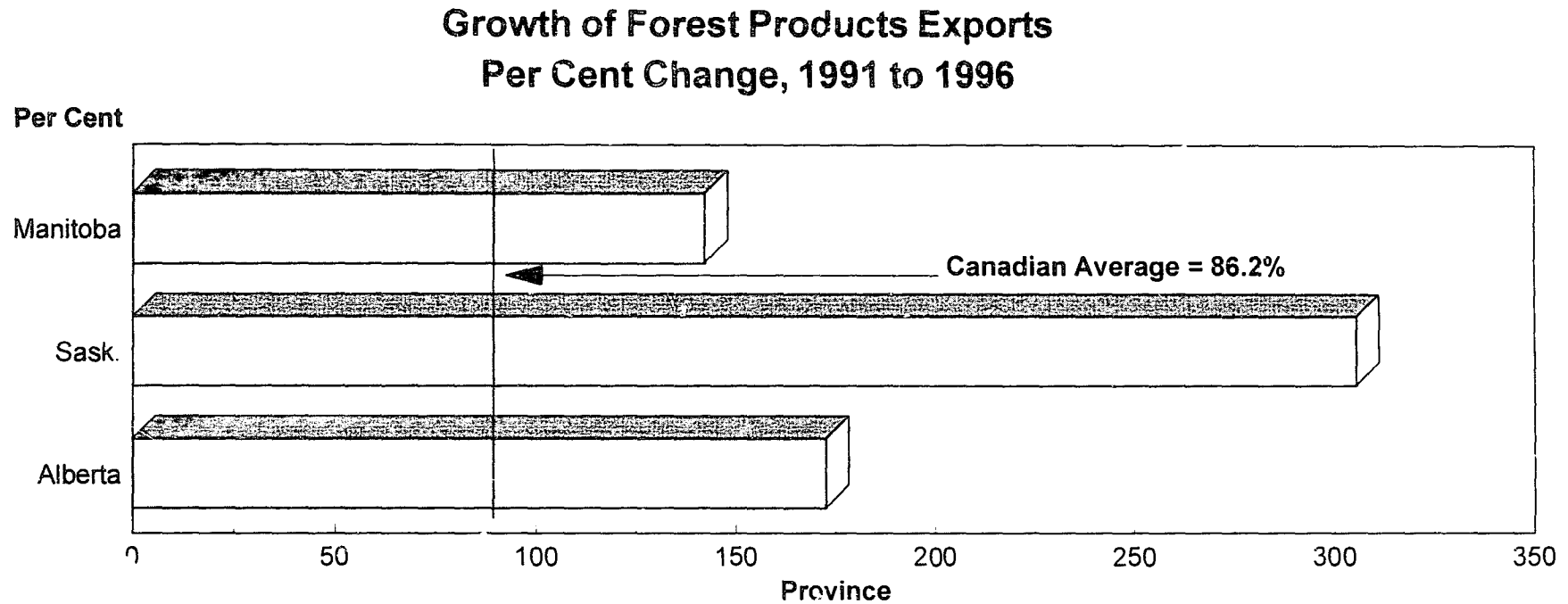
Forest Products Exports as a % of Total Manufacturing Exports - 1996



Source: Industry Canada (Strategis)

- In total, forest products exports accounted for nearly 16% of Prairie manufacturing exports in 1996.
- With just over 22% of manufacturing exports being forest products, the industry is relatively more important to Saskatchewan's export activity than it is to that of Manitoba or Alberta.
- Both below the national average, forest products exports made up 12% and 16% of Manitoba's and Alberta's manufacturing exports respectively, over 1996.

Led by Saskatchewan, the Prairies are showing tremendous growth in forest products export activity.



Source: Industry Canada (Strategis)


- Forest products exports have grown significantly throughout the Prairies in recent years, well above the national average.
- Saskatchewan recorded the largest growth in export activity between 1991 and 1996 (305.4%), followed by Alberta (172.7%) and Manitoba (142.2%).

The U.S. is the primary market for Prairie forest products exports.

Top Three Destinations for Forest Products Exports - 1996

*Wood - SIC 25


Canada	Manitoba	Sask.	Alberta
U.S. (74.5%)	U.S. (94.3%)	U.S. (95.3%)	U.S. (80.5%)
Japan (18.5%)	Japan (4.4%)	Japan (4.7%)	Japan (18.0%)
U.K. (1%)	Finland (0.4%)	India (0.01%)	Korea, South (0.4%)



	Manitoba	Sask.	Alberta
U.S. Northeast	10.7%	6.9%	5.4%
U.S. Midwest	44.7%	45.3%	21.9%
U.S. South	24.8%	32.9%	29.7%
U.S. Northwest	14.1%	10.2%	23.5%
U.S. Total	94.3%	95.3%	80.5%

*Paper & Allied Pdts. - SIC 27

Canada	Manitoba	Sask.	Alberta
U.S. (68.9%)	U.S. (88.4%)	U.S. (63.7%)	U.S. (42.1%)
Japan (5.5%)	U.K. (5%)	Japan (8.7%)	Japan (22.2%)
Germany (3.2%)	Dominican Rep. (1.4%)	Italy (4.8%)	Korea, South (8%)



	Manitoba	Sask.	Alberta
U.S. Northeast	6.1%	18.8%	6.3%
U.S. Midwest	20.5%	34.3%	19.8%
U.S. South	30.2%	8.7%	9.2%
U.S. Northwest	31.3%	1.8%	6.9%
U.S. Total	88.4%	63.7%	42.1%

Source: Industry Canada (Strategis)

*The values presented represent the per cent contribution to total provincial industry exports

- As seen on a national level, the United States is the primary export market for Prairie forest products.
- With the exception of paper & allied products exports in Manitoba, Japan is the number two destination for Prairie forest products exports. This is most apparent in Alberta, with Japan accounting for approximately 20% of industry exports.
- Within the U.S., the Midwest and South account for the largest portion of Prairie forest products exports.

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