Tracing these larger shipment decreases back to the provincial level, the decline in wood industries was due largely to the 15.3% drop in British Columbia where almost half the nation's shipments originate, while New Brunswick and Saskatchewan had drops of 26.8% and 23.2% on smaller volumes.

Similarly the decrease in the primary metals group may be traced largely to Ontario which declined by 17.1% and accounted for 57.0% of all shipments in Canada. Other provinces with large percentage declines included Alberta, down 22.2% on 5.0% of the national volume and Manitoba which declined 22.1% on 1.4% of the Canadian total shipments, Moderating the national decline was Quebec which eased back by only 6.1% on 27.4% of the national shipment total. Thus while all industrial groups suffered, the wood industries in British Columbia and the primary metals industries in Ontario and Alberta were the weakest areas in the manufacturing sector in 1982.

## 16.2 Manufacturing in 1981

Total value for manufacturing in 1981 came to \$191.0 billion, up 13.7% from \$168.1 billion in 1980 and 25.6% higher than the \$152.1 billion in 1979.

The two largest industrial provinces were Ontario with 49.2% or \$94.0 billion worth of national total shipments and Quebec with 26.2% valued at \$50.1 billion. Some others in descending order were British Columbia (8.8%), Alberta (7.0%), Manitoba (2.6%) and New Brunswick (2.0%).

All the provinces showed increases in value of shipments (Table 16.1) with the highest increase in Alberta (27.7%), followed by Saskatchewan (18.2%), Yukon and Northwest Territories (15.2%), Ontario (14.4%), Manitoba (14.2%), Newfoundland (13.2%), Quebec (12.4%), Nova Scotia (10.7%), New Brunswick (8.0%), British Columbia (5.7%) and Prince Edward Island (5.4%).

The strongest growth was in the petroleum and coal products industries which rose by 40.8% to \$20.5 billion. The next best gains were made by the furniture and fixtures industries, up 19.4% to \$2.8 billion and by chemical and chemical products industries, up 17.6% to \$13.2 billion. Other groups which surpassed the national all-industry increase of 13.7% were electric products industries, up 15.1% to \$8.9 billion; printing, publishing and allied industries, up 14.9% to \$6.5 billion; textile industries, up 14.4% to \$5.1 billion and the transportation equipment industries, up 14.2% to \$21.7 billion.

Effect of inflation. To determine the proportion of the national all-industry increase of 13.7% which reflects real growth it is necessary to eliminate the impact of inflation. The ISPI, which covers approximately the same set of industries, recorded a growth of 10.2% in 1981 over 1980. Thus the real growth in shipments stood at 3.5%.

16.2.1 Leading industries

The leading manufacturing industry in Canada in 1981 in terms of shipments was petroleum refining at \$20.0 billion. The pulp and paper mills category was next highest with shipments of \$11.6 billion. There has been a continuing strong export demand for newsprint, an important component in this industry.

Motor vehicles, the leading category in the late 1970s, slipped from first place to second in 1979 and third in 1981.

Two industries were in the \$6 billion to \$8 billion range. Slaughtering and meat packing shipped \$7.6 billion. Iron and steel mills at \$7.0 billion in shipments, up from \$6.4 billion in 1980, reflected an increase in production. Miscellaneous machinery and equipment shipped \$5.8 billion in 1981. A world leader in pulp and paper machinery, this industry also excels at producing custom-made equipment. Sawmills and planing mills had shipments of \$5.0 billion, down from \$5.1 billion in 1980, continuing a decline caused by decreased exports and demand for housing.

The eighth to tenth largest industries had shipments under \$5 billion. Dairy products at \$4.9 billion rose from \$4.5 billion in 1980. Output in the motor vehicle parts and accessories industry was \$4.4 billion. Although more than half the shipments were exported, there remains a substantial trade deficit with the US in this industry. The tenth largest industry with shipments of \$3.4 billion was metal stamping and pressing. This industry manufactures a wide variety of products from licence plates to tin cans.

16.2.2 Shipments of the top 10 groups

Of the total \$191.0 billion in manufacturing shipments from the major industry groups for 1981, the food and beverage industries were leading at \$31.8 billion. Transportation equipment followed at \$21.7 billion; petroleum and coal products, \$20.5 billion, paper and allied industries, \$15.7 billion; the primary metals industries, \$14.4 billion; chemical and chemical products industries, \$13.2 billion; metal fabricating industries, \$12.4 billion; electrical products, \$8.9 billion; machinery industries, \$8.7 billion; and wood industries, \$8.4 billion (Table 16.2).

All of these groups showed an increase in shipments over 1980. The food and beverage industries were up 12.6% from \$28.2 billion; transportation equipment, up 14.2% from \$19 billion; petroleum and coal products, up 40.8% from \$14.5 billion; paper and allied industries, up 8.5% from \$14.5 billion; primary metals industries, up 6.7% from \$13.5 billion; chemical and chemical products, up 17.6% from \$11.2 billion; metal fabricating industries, up 5.6% from \$11.7 billion; electrical products, up 15.1% from \$7.8 billion; machinery industries, up 13.6% from \$7.6 billion and wood industries, up 0.5% from \$8.4 billion.