

Alberta's Information and Communications Industry

OVERVIEW

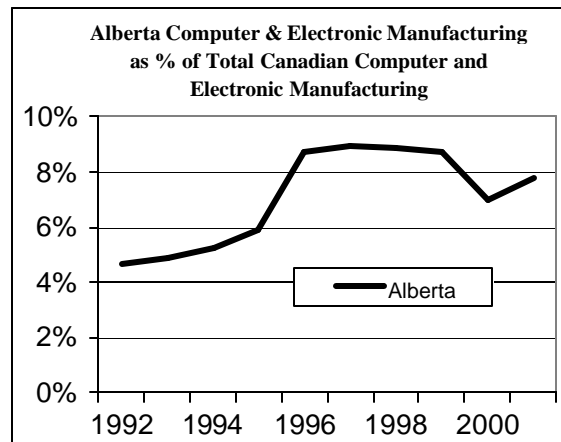
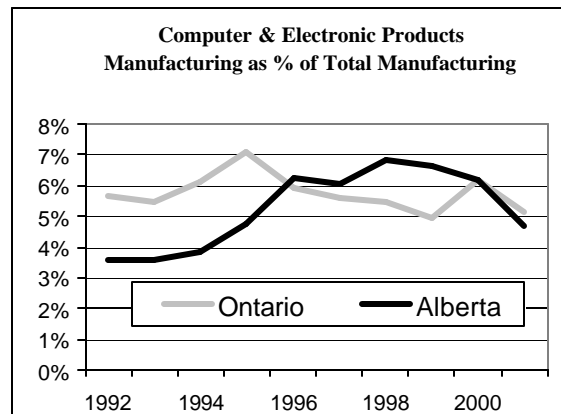
- Alberta's share of Canada's total computer and electronic manufacturing shipments increased from 4.7% in 1992 to 7.8% in 2001. Ontario's share fell from 58% to 54% over the same period.
- Over the last 10 years, Alberta's computer and electronic exports have increased from 4.4% to 11.6% of total international exports (excluding oil and gas), the highest increase of any export industry.
- In 2001, approximately 86% of Alberta's total computer and electronic product exports went to the United States, up from 67% in 1992.
- Alberta's communications services exports, as a share of total exports, tripled between 1985 and 2000.

COMPUTER AND ELECTRONIC MANUFACTURING: ALBERTA VS. ONTARIO

Alberta's computer and electronics manufacturing shipments increased from 3.6% of total shipments in 1992 to 4.7% in 2001. Between 1992 and 1998, strong growth in the high-tech sector combined with falling energy prices led to a steep increase in Alberta's computer and electronics share of manufacturing. After 1998, energy prices began to rise with a sharp increase in 2000; at the same time the high-tech sector stumbled, decreasing high-tech's share of total manufacturing.

Between 1992 and 2001 Ontario's computer and electronics share of manufacturing shipments fluctuated between 5% and 7%. Growth in Ontario's high-tech sector was overshadowed by strength in the transportation equipment manufacturing industry.

Alberta's share of total Canadian computer and electronic products manufacturing shipments increased from 4.7% in 1992 to 7.8% in 2001,



while Ontario's share decreased from 58% to 54%. Quebec's share remained the same at just over 31%, while British Columbia's share increased from 1.8% to 2.5% over the same period.

INTERNATIONAL EXPORTS: COMPUTER AND ELECTRONIC PRODUCTS

Alberta's top 5 international export industries: NAICS 3-Digit Codes

Source: Industry Canada

Industry	% of Total Exports			% of Exports Excluding Oil & Gas		
	1992	1996	2001	1992	1996	2001
Oil & Gas	56.3%	47.8%	59.9%			
Chemical Manufacturing	9.1%	8.9%	6.6%	20.8%	17.1%	16.5%
Food	3.3%	4.2%	5.2%	7.7%	8.0%	12.8%
Computer & Electronic	1.9%	4.1%	4.7%	4.4%	7.8%	11.6%
Crop Production	8.5%	7.6%	3.8%	19.4%	14.6%	9.4%
Sub-Total	79.1%	72.6%	80.2%	52.3%	47.5%	50.3%

Between 1992 and 2001, computer and electronics exports reported the largest increase as a share of total exports. By 2001 they made up 11.6 % of total international exports excluding oil and gas. As such, computer and electronic exports have become an increasingly larger player in Alberta's economic development. Below is a detailed breakdown of Alberta's computer and electronic exports, which shows for each category the increase in value of exports between 1992 and 2001, and the percentage of total computer and electronics exports for each category in 1992 and 2001.

Source: Industry Canada

Industry Description: 6-digit sub-categories of Computer and Electronic Products (NAICS-334)	2001/1992	% Of Total 1992	% Of Total 2001
Computer and Peripheral Equipment Manufacturing	2.1	9.6%	2.7%
Telephone Apparatus Manufacturing	7.4	46.4%	44.6%
Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	19.6	14.8%	37.6%
Other Communications Equipment Manufacturing	6.1	0.7%	0.5%
Audio and Video Equipment Manufacturing	1.6	0.8%	0.2%
Semiconductor and Other Electronic Component Manufacturing	5.5	5.0%	3.6%
Navigational and Guidance Instruments Manufacturing	20.7	0.5%	1.3%
Measuring, Medical and Controlling Devices Manufacturing	3.6	17.9%	8.3%
Manufacturing and Reproducing Magnetic and Optical Media	2.2	4.5%	1.3%
Sub-Total (United States)	9.9	67.3%	86.2%
Sub-Total (Excluding the United States)	3.2	32.7%	13.8%
Total (All Countries)	7.7		

In 1992, Telephone Apparatus Manufacturing (TA), and Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing (TBWC) categories comprised 61.2% of

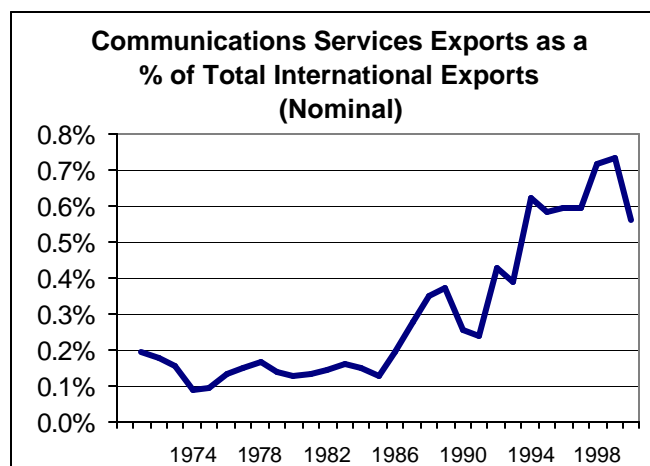
computer and electronic exports. By 2001 the combined share of both categories increased to 82.2%. The strongest growth came in the TBWC category, which increased its export share from 14.8% in 1992 to 37.6% in 2001. The Navigational and Guidance Systems category also experienced strong growth, increasing from 0.5% to 1.3% over the same period.

An increasingly large percentage of computer and electronics exports went to the United States, increasing from 67.3% in 1992 to 86.2% in 2001. This was largely due to increases in Radio and Television Broadcasting and Wireless Communications Equipment exports. Non-U.S. bound exports decreased from 32.7% to 13.8% over the same period.

INTERNATIONAL EXPORTS: COMMUNICATIONS SERVICES

Source: Alberta Economic Accounts

Communications services exports, as a share of total international exports, increased by more than 500% from 0.1% in 1985 to 0.6% in 2000. Though in absolute value the numbers are small, the growth is impressive. In 1999, communications services actually reached 0.72% of total exports. The sharp decrease in their export share, from 0.72% in 1999 to 0.6% in 2000, is primarily due to increased energy prices in 2000. In fact, the dollar value of communications services exports increased by 9% between 1999 and 2000.



CONCLUSION

The information and communications industry is an integral part of Alberta's high-tech sector. Employment in Alberta's technology sector increased from 3.8% in 1988 to 5.7% in 1999. The Alberta Science and Research Authority estimates the information technology sector will employ 140,000 people by 2010, an increase from 17,000 in 2001

Alberta is not only a producer, but also a large consumer of information and communications technology. Alberta Economic Development has reported that "almost 80 per cent of Alberta homes and businesses are wired for electronic communication, making the province one of the most "wired" regions in the world". Alberta has the highest number of households in Canada with telephones (99%), cellular phones (51%), computers (63%) and Internet access (45%).