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Graphs of Growth

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GOVERNMENT OF
PROVINCE OF ALBERTA, CANADA



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Compiled by

The Alberta Bureau of Statistics DEPARTMENT OF INDUSTRIES AND LABOR

HON. R. REIERSON
Minister

J. E. OBERHOLTZER
Deputy Minister

FOREWORD

This booklet has been prepared to interest officials of industrial and commercial firms in the possibilities of establishing manufacturing plants and commercial outlets in the Province of Alberta.

Graphically presented, it is easy to see at a glance the development which has taken place in the province, particularly since the end of the war.

The subjects chosen for presentation, as reference to the table of contents below will confirm, are those which reveal most readily the increasing volume of business in recent years, the assured basis of the economic structures of the province, and the development which has taken place in the primary and secondary industries. The statistical data used in the preparation of tables and graphs have been taken, where possible, from Dominion Bureau of Statistics publications. Other sources were the Research Council of Alberta, The Alberta Power Commission, Oil & Gas Conservation Board, and the Alberta Bureau of Statistics.

Published by

The Industrial Development Branch DEPARTMENT OF ECONOMIC AFFAIRS

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NET VALUE OF PRODUCTION

Net production of "value added" is generally considered the most significant measure of production. The net value of production of an industry measures only the value added by that industry to total production. This measure is obtained by deducting the cost of materials, fuel, purchased electricity and process supplies consumed in the production process from the total value of output.

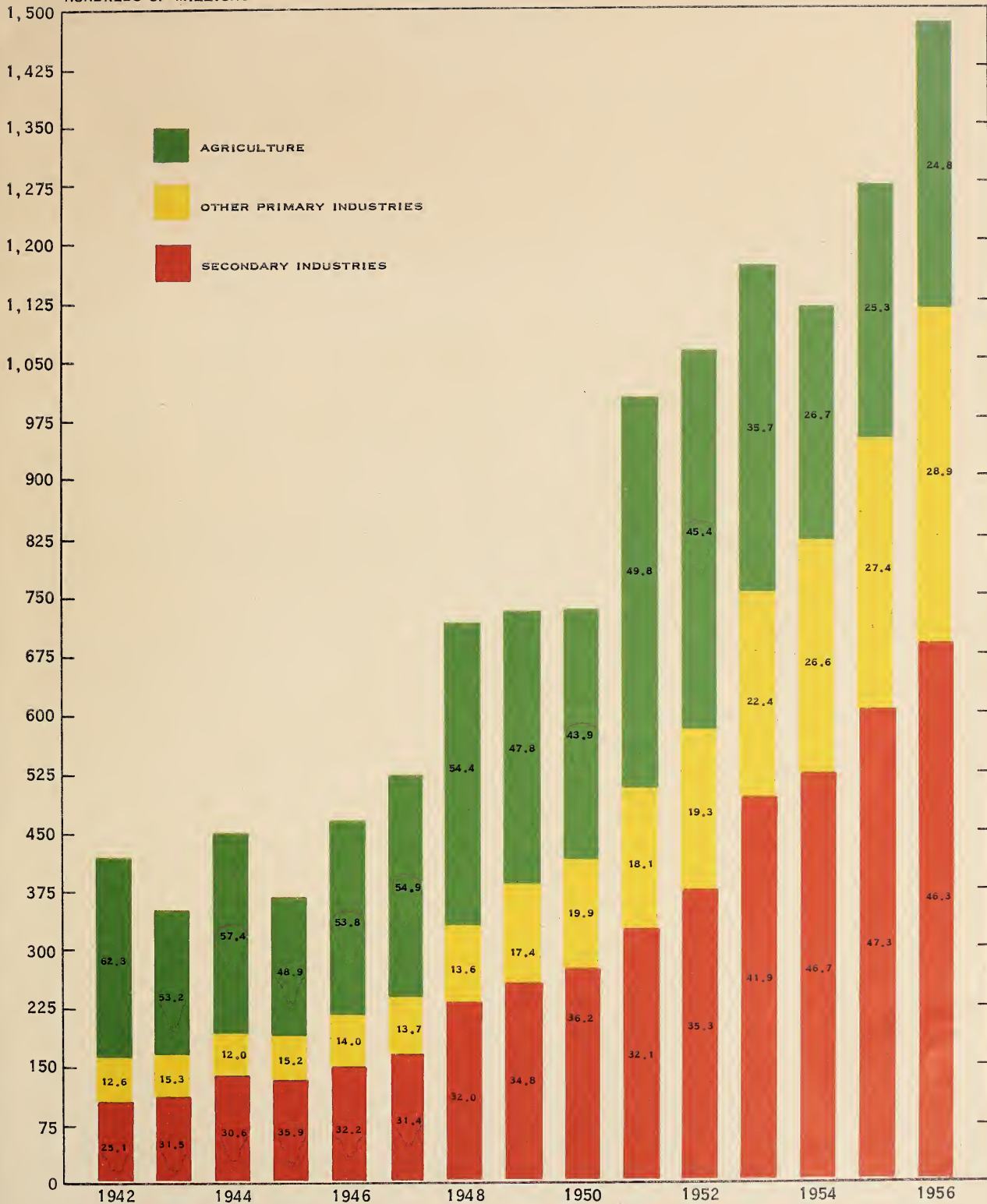
Agriculture, mining, fishing, trapping, lumbering, and the generation of electricity are primary industries; manufacturing and construction the secondary industries. Because of the historical importance of agriculture in the province its net value of production is shown separately on the graph.

NET VALUE OF PRODUCTION AGRICULTURE, OTHER PRIMARY INDUSTRIES, AND SECONDARY INDUSTRIES ALBERTA, 1942-1956							
	Agriculture		Other Primary Industries		Secondary Industries		Total
	\$ '000	Per Cent of Total %	\$ '000	Per Cent of Total %	\$ '000	Per Cent of Total %	\$ '000
1942 ...	259,749	62.3	52,538	12.6	104,480	25.1	416,767
1943 ...	186,755	53.2	53,761	15.3	110,797	31.5	351,313
1944 ...	258,301	57.4	54,075	12.0	137,416	30.6	449,792
1945 ...	179,091	48.9	55,657	15.2	131,548	35.9	366,296
1946 ...	248,804	53.8	64,862	14.0	148,735	32.2	462,401
1947 ...	286,080	54.9	71,192	13.7	163,290	31.4	520,562
1948 ...	389,090	54.4	97,629	13.6	229,124	32.0	715,843
1949 ...	349,455	47.8	126,898	17.4	254,681	34.8	731,034
1950 ...	322,320	43.9	145,935	19.9	265,893	36.2	734,148
1951 ...	500,210	49.8	181,371	18.1	321,838	32.1	1,003,419
1952 ...	481,649	45.4	204,760	19.3	373,843	35.3	1,060,252
1953 ...	417,895	35.7	261,807	22.4	491,041	41.9	1,170,743
1954 ...	298,657	26.7	296,811	26.6	522,225	46.7	1,117,693
1955 ...	322,215	25.3	348,539	27.4	602,422	47.3	1,273,176
1956 ...	368,000	24.8	429,110	28.9	687,419	46.3	1,484,529

On a per capita basis net value of production in Alberta rose from \$537 in 1942 to \$1322 in 1956. Total net value of production rose from \$416.8 million in 1942 to \$1484.5 million in 1956.

The trend has been for the proportionate net value of production of other industries to increase at the expense of agriculture over the period. Agriculture accounted for 62 per cent of the production of new wealth in 1942; for only 25 per cent in 1956. The section of the table on net value of production of the agricultural industry shows the violent year to year fluctuation in dollar values. This compares with a more "normal" and orderly growth of the other primary and secondary industries. Over the period 1942 to 1956, net value of mining (coal and petroleum mainly) production increased from 13 per cent to 26 per cent; and that of manufacturing and construction increased from 25 per cent to 46 per cent of the total.

HUNDREDS OF MILLIONS



NET VALUE OF PRODUCTION, AGRICULTURE, OTHER PRIMARY INDUSTRIES AND SECONDARY INDUSTRIES, ALBERTA, 1942-1956

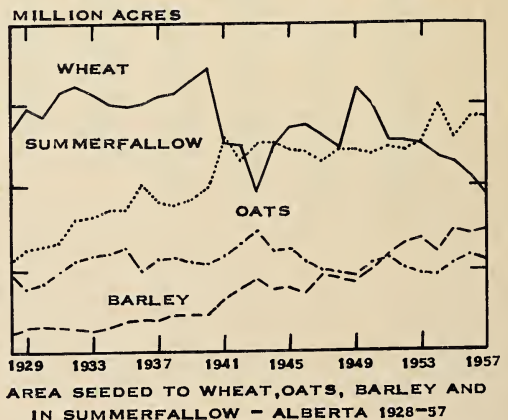
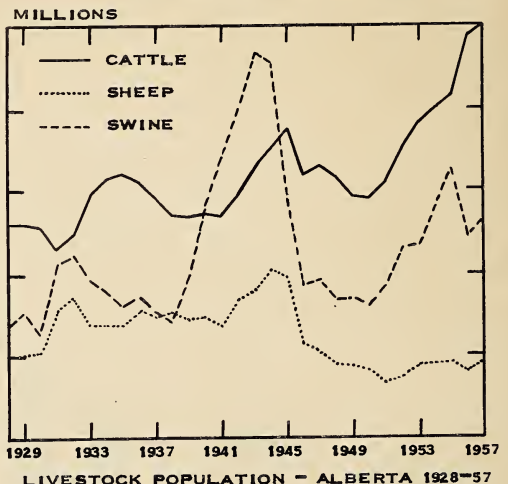
AGRICULTURE

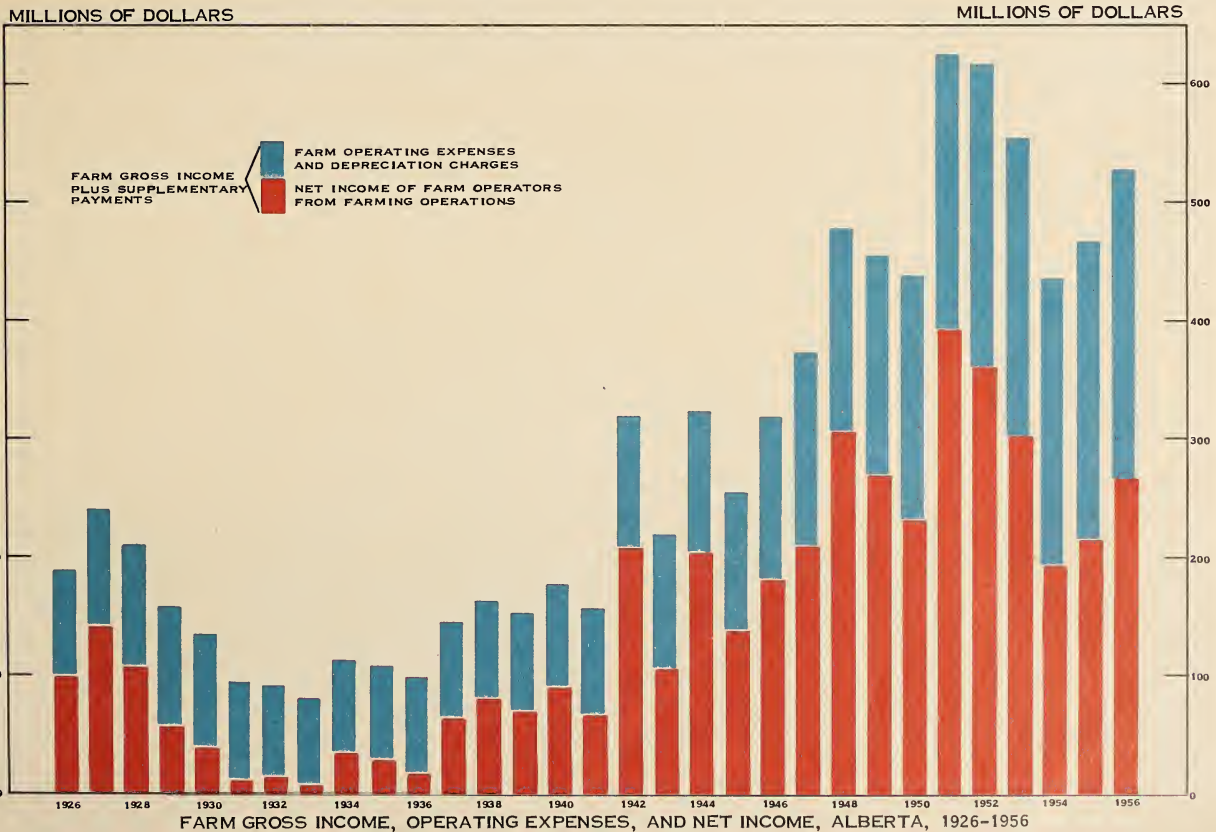
Cash Income from the Sale of Farm Products, Alberta, 1926-1956				Income from Farming Operations Alberta, 1926-1956			
	Total Crops	Total Live-stock & Products - thousand	Miscellaneous & Supplemen-tary PFAA dollars	Total Cash Income -	Gross Income - thousand dollars	Operating & Depreciation Charges -	Total Net Income -
1926	116,557	49,148	147	165,852	184,667	87,648	97,019
1931	45,142	28,464	133	73,739	91,568	81,284	10,284
1936	53,140	42,776	179	96,095	95,801	78,215	17,586
1941	66,289	78,617	7,899	152,805	154,873	88,407	66,466
1946	147,040	133,163	4,672	284,875	317,884	137,176	180,708
1951	243,514	216,210	4,460	464,184	626,383	233,969	392,414
1952	318,741	186,101	2,577	507,419	617,560	257,711	359,849
1953	283,795	202,450	789	487,034	554,336	253,563	300,773
1954	173,534	212,476	1,266	387,276	433,991	242,327	192,695
1955	155,415	209,478	6,013	370,906	461,525	251,926	215,375
1956	208,091	224,632	1,559	434,282	526,814	261,321	266,812

Alberta's agricultural resources provide for the production of a wide variety of food stuffs. Wheat is still the most important cash crop while beef and pork are the principal meats produced. However, dairy-ing, poultry, sheep raising, fur farming and apiculture are important. The production of sugar beets, fresh vegetables for the trade, canning and freezing, forage crop seeds, mustard seed, etc, are growing in importance. In general, the choice of farm enterprises is based principally upon differences in soil fertility, precipitation and the length of the growing season.

Wheat production predominates in semi-arid regions, notably in southern and eastern sections. Ranching, a type of specialty live stock raising, is confined to the foothills and extreme southeast areas. The fertile central belt including grey wooded soils on the west and north, are devoted to various combinations of field crops and live stock production. In the Peace River country, wheat and wheat combinations includ-

ing seed production and live stock, predominate. The accompanying graph on cash income from the sale of farm products illustrates the changing source of cash income. In 1926 cash income from field crops comprised 70.2 per cent of total cash income as compared with 47.9 per cent in 1956. Cash income from livestock and products accounted for only 29.6 per cent of total cash income in 1926 and increased to 51.7 per cent of the total in 1956. Net income of farm operators from farming operations as shown by the second graph rose from a low of \$6.0 million in 1933 to a high of \$392.4 million in 1951. Operating expenses rose from \$72.7 million in 1933 to \$261.3 million in 1956.





MINERALS

VALUE OF MINERAL PRODUCTION					
Ontario, Quebec, Alberta, Other Provinces and Total Canada, 1943-1957					
	Ontario	Quebec	Alberta	Other Provinces	Total Canada
	\$	\$	\$	\$	\$
1943	232,948,959	101,610,678	48,941,210	146,553,119	530,053,966
1944	210,706,307	90,182,553	51,066,662	133,863,592	485,819,114
1945	216,541,856	91,518,120	51,753,237	138,941,968	498,755,181
1946	191,544,429	92,785,148	60,082,513	158,404,161	502,816,251
1947	249,797,671	115,151,635	67,432,270	212,488,399	644,869,975
1948	294,239,673	152,038,867	93,211,229	280,759,096	820,248,865
1949	323,368,644	165,021,513	113,728,425	298,991,444	901,110,026
1950	366,801,525	220,176,517	135,758,940	322,713,091	1,045,450,073
1951	444,667,203	255,530,071	168,144,211	377,142,110	1,245,483,595
1952	444,669,412	270,483,962	196,811,654	373,377,325	1,285,342,353
1953	465,877,093	251,881,781	248,863,295	369,681,334	1,336,308,503
1954	496,747,571	278,818,070	279,042,735	433,773,715	1,488,382,091
1955	583,954,682	357,010,045	325,974,326	528,371,743	1,795,310,796
1956	650,823,362	422,464,410	411,171,898	600,445,884	2,084,905,554
1957	739,219,218	384,465,152	411,960,822	598,295,895	2,133,941,087

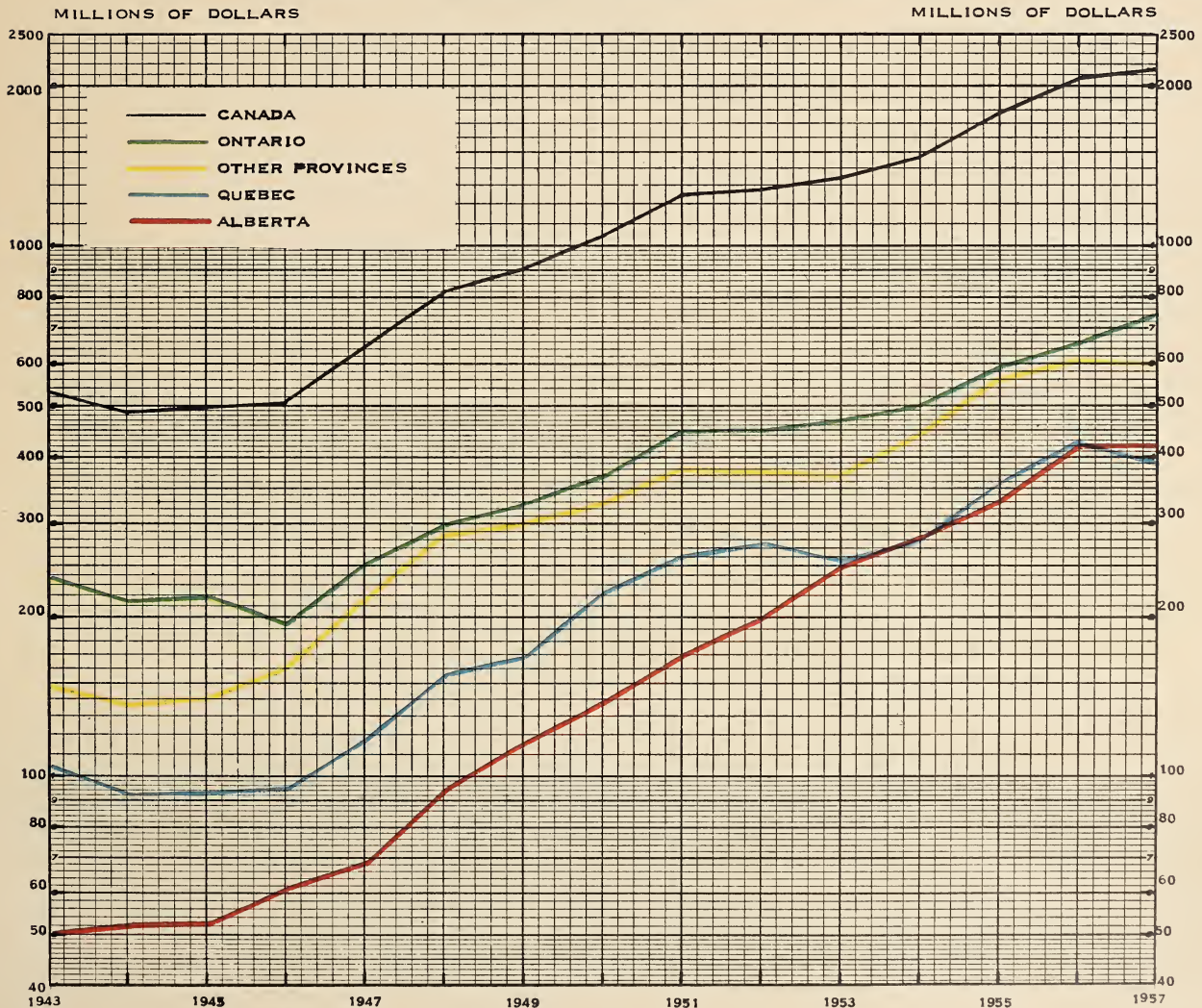
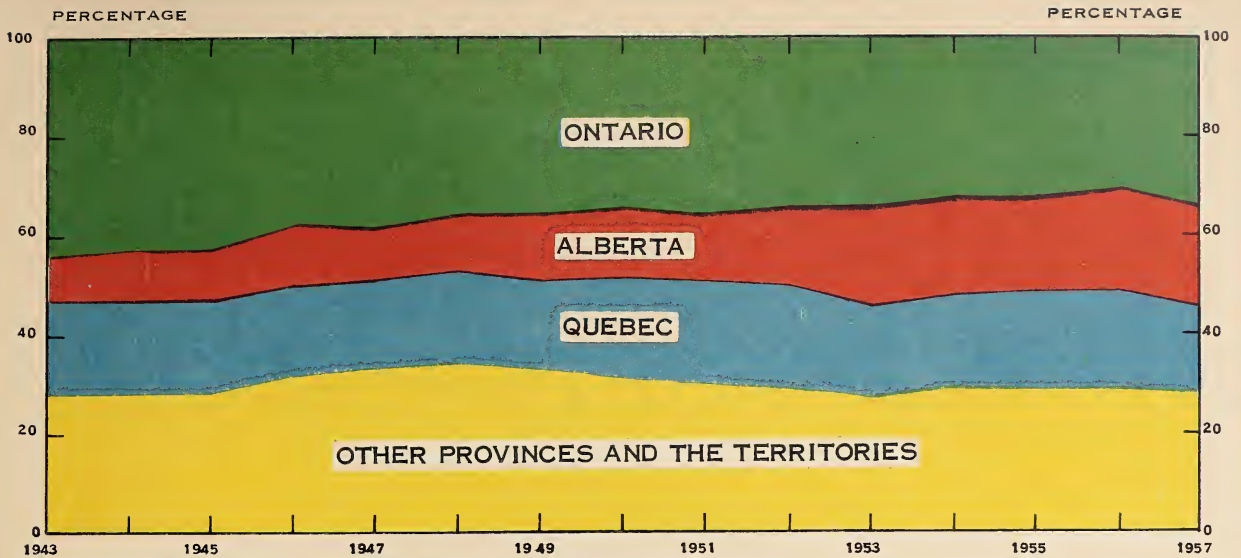
As indicated on the accompanying graph and in the table above, the province of Alberta ranked second in 1957 among the provinces of Canada in the value of mineral production. This value increased from \$48.9 million in 1943 to \$412.0 million in 1957, a 1,188 per cent increase over the fourteen year period.

The increasing contribution being made by Alberta to the total value of mineral production of Canada is shown on the accompanying graph. In 1943 the Alberta portion amounted to 9.2 per cent; this had increased to 19.3 per cent by 1957. The rapid increase in the value of mineral production from \$67.4 million in 1943 to \$412 million in 1957 - is attributable mainly to the development of Alberta petroleum resources.

In the table to the right are shown the comparative values of various minerals produced in the years 1943 and 1957.

The province has long been noted for its vast reserves of coal, which are estimated to exceed 46,562 million tons. Accessible carbonate rocks, which outcrop along the frontal ranges of the Rocky Mountains, are presently used in the manufacture of cement, lime, poultry feeds, and roofing materials. Clay and shale deposits of varying quality are widespread but to date they have been used mainly in brick and tile manufacture at Medicine Hat and Edmonton. Large gypsum deposits have been found in northern Alberta. Salt beds extend from Fort McMurray in northern Alberta. Deposits of lead, zinc, and iron (siderite) have been located but not fully evaluated. It has been estimated that the bituminous sands on the Athabasca River hold reserves of from one hundred to three hundred billion barrels of crude oil.

	Value of Mineral Production	
	Alberta, 1943 and 1957	
	1943	1957
	Value	Value
	Millions of	dollars
Coal	\$ 24.0	\$ 17.7
Natural Gas	6.2	13.2
Crude Petroleum	15.7	359.4
Clay Products	1.0	2.6
Cement	1.2	8.8
Lime	.2	.6
Sand & Gravel	.3	8.5
Salt	.3	.9



ENERGY RESOURCES

Alberta possesses immense energy resources particularly in fossil fuels and it is in this province that Canada's fuels are concentrated. These fuels include coal, petroleum, natural gas, natural gas liquids and the Athabasca Oil Sands, and their quantities together with Canadian totals and the provincial to national ratios are shown below :

Total Available Energy Resources (Expressed in trillions of Btu's) December 31, 1957			
	Alberta	Canada	Percent Alberta
Natural Gas	21,000	26,000	81.0%
Natural Gas Liquids	1,940	2,430	79.5%
Petroleum	18,000	20,900	86.3%
Oil Sands	626,000	626,000	100.0%
Coal	1,158,190	2,390,000	48.5%

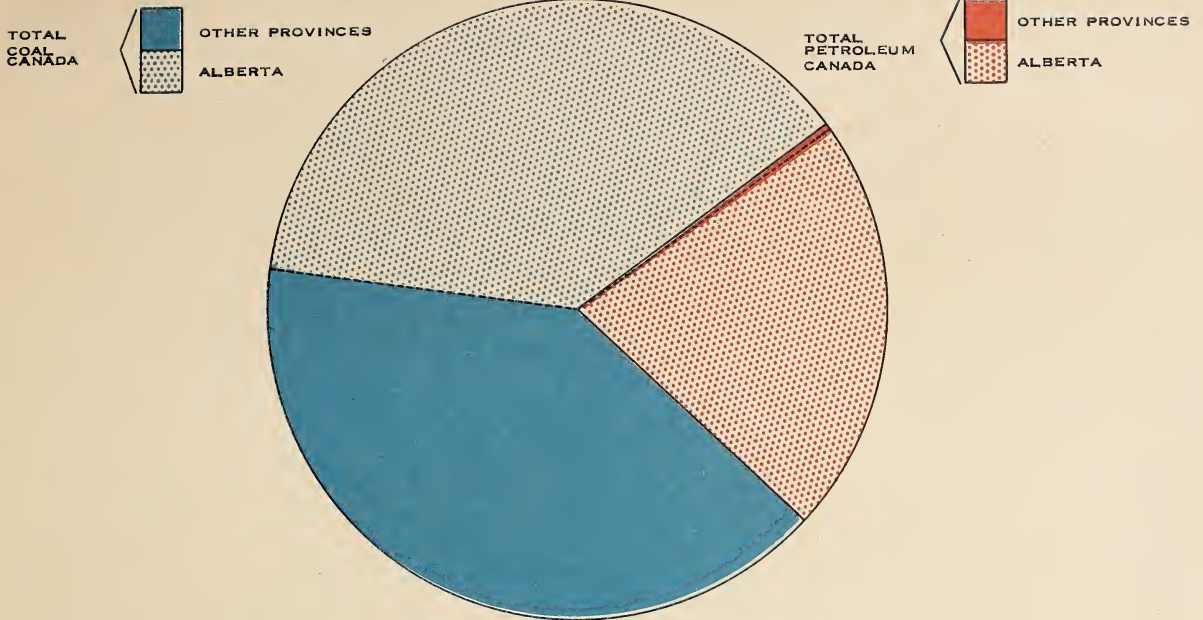
The giant among these energy resources is coal and it strongly dominates the fuel field. Alberta's share of this primary resource is estimated at 48 billion tons of mineable coal or approximately 48 per cent of Canada's total coal reserve. The coals of Alberta range in rank from lignite to semi-anthracite and are suitable for the generation of electrical energy, for space and process heating, for railway locomotives and also for the production of synthetic liquid and gaseous fuels and chemicals.

While the reserves of liquid and gaseous petroleum fuels are overshadowed by those of coal, they are none the less of great magnitude and here Alberta possesses the major share of the entire Canadian reserves. The highly convenient form of these fuels and their intensely vital role in today's industrial era places Alberta in a uniquely fortunate position in the competition for industrial expansion. The increasingly large supplies of western Canada crude oil have enabled Canada to improve its oil self-sufficiency position during the past 10 years from less than 10 per cent to over 65 per cent in spite of a three-fold increase in domestic demand for petroleum fuels. The rise in importance of petroleum and natural gas as energy sources is evident.

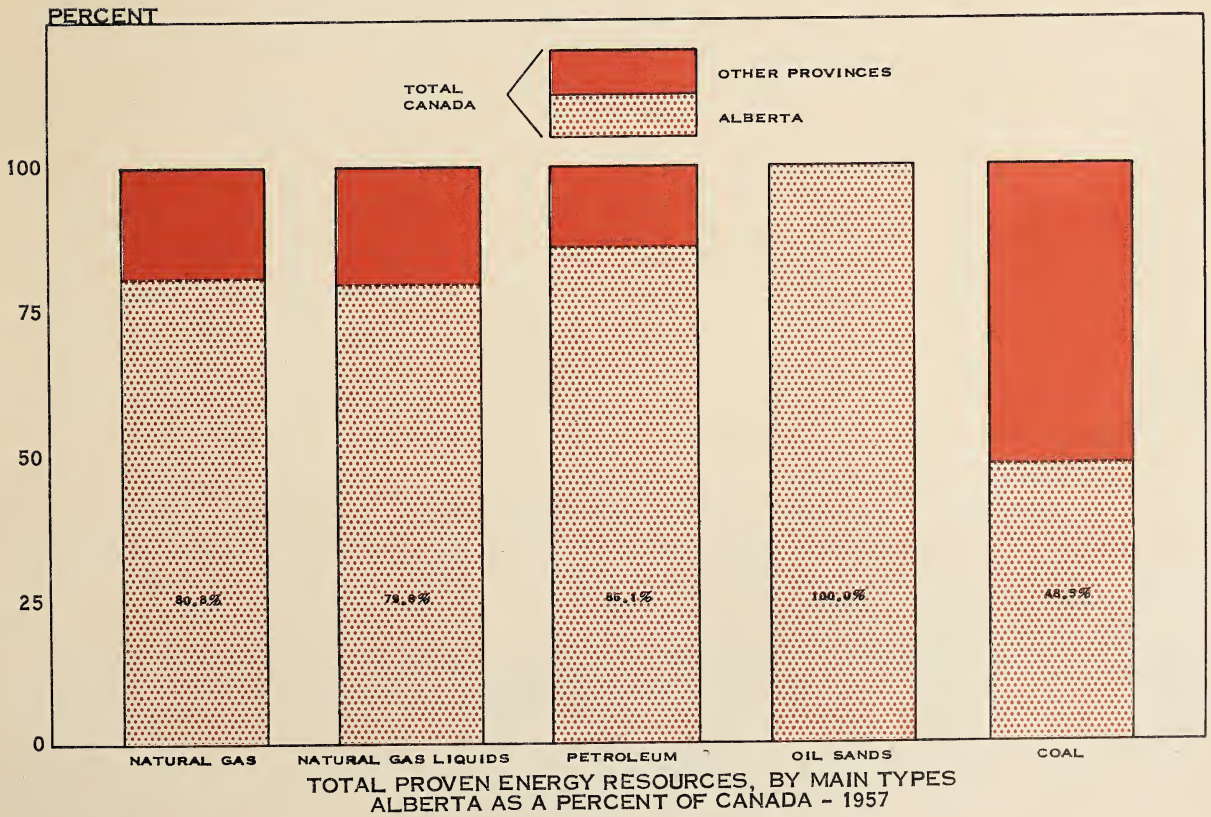
In addition to reserves of crude petroleum, Alberta has enormous potential reserves of oil in the Athabasca Oil Sands. There have been many estimates with respect to the amount of oil that these deposits contain but a conservative estimate would be of the order of one hundred billion barrels.

And to supplement this storehouse of energy from fossil fuels is a potential hydro-power development, estimated at 2.85 million K.W. or over 6 per cent of Canada's total. This represents .6 million K.W. generating capacity on fully surveyed and proven sites on the Bow and North Saskatchewan Rivers; and a further estimated 2.25 million K.W. from partially investigated sites on the North Saskatchewan, Athabasca, Peace and Slave Rivers.

The relative magnitude of the reserves of natural gas and petroleum in Alberta as well as their relationship to the total Canadian picture is shown on the graphs opposite.



TOTAL PROPORTIONATE ENERGY RESOURCES, PETROLEUM AND COAL (EXPRESSED IN B. T. U. EQUIVALENTS) ALBERTA AND CANADA - 1957



PETROLEUM & NATURAL GAS

To the end of 1957, 2.9 trillion cubic feet of natural gas and 812.0 million barrels of crude oil had been produced in Alberta: 727.5 million barrels of the crude oil since 1946. At the end of 1957 proven reserves of natural gas exceeded 21 trillion cubic feet and known reserves of crude oil --- exclusive of oil in the McMurray bituminous sands --- exceeded 2.4 billion barrels. Average daily crude oil production in 1957 was 377,000 barrels.

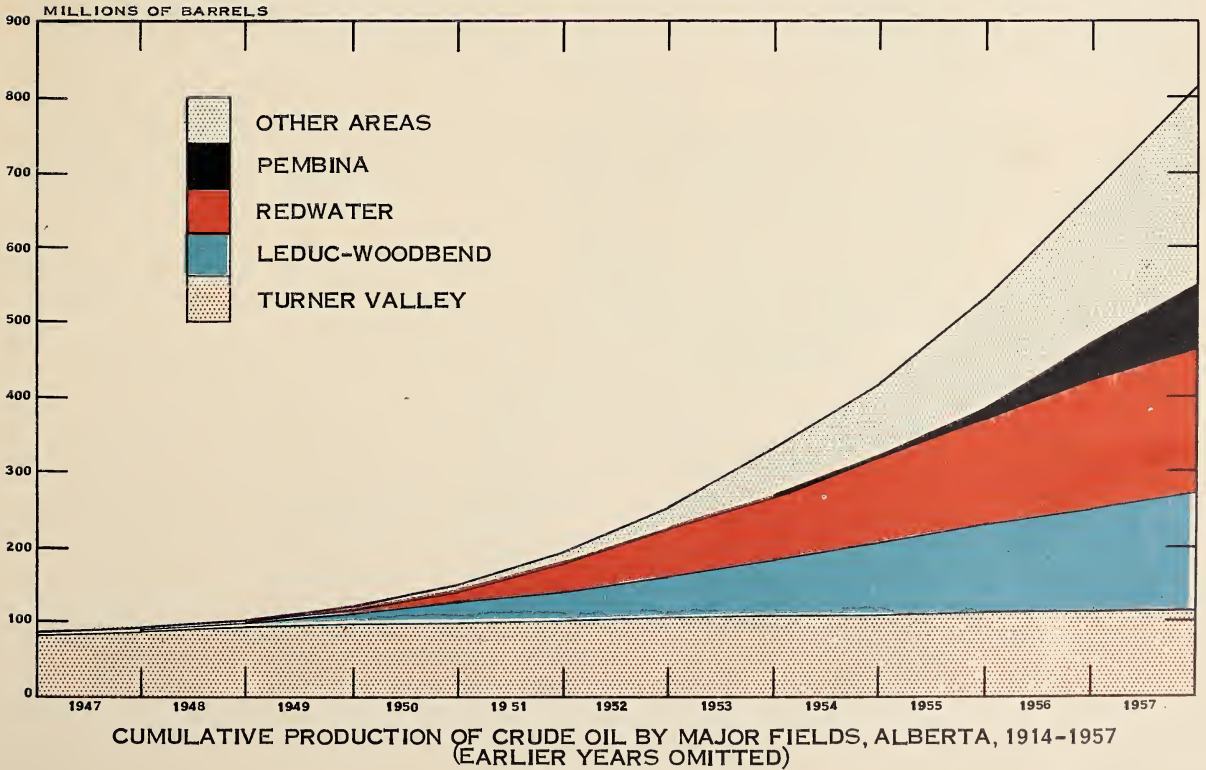
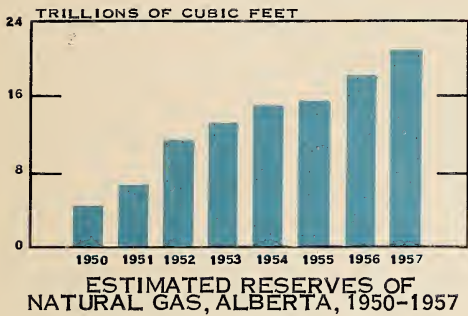
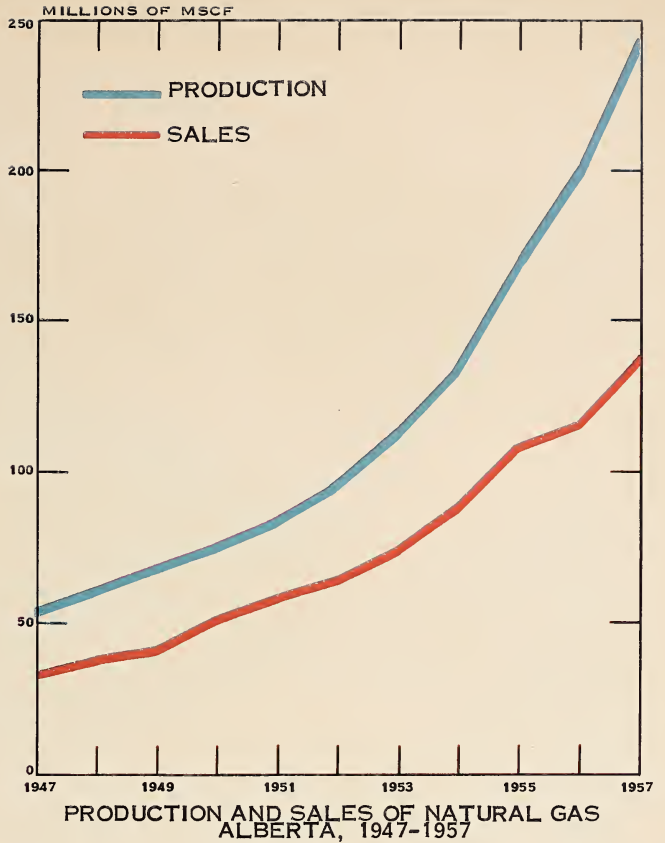
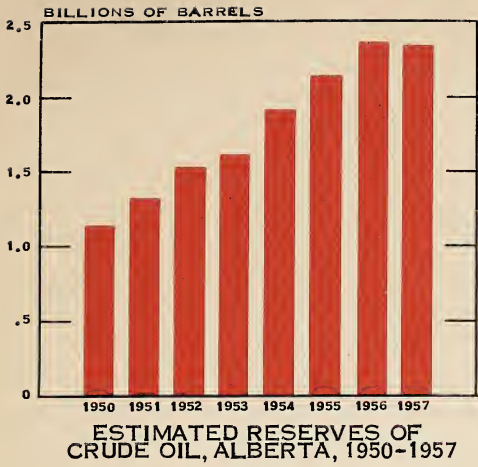
Estimated Crude Oil & Natural Gas Reserves, Alberta, 1950-57			Production & Sales of Natural Gas Alberta, 1950-57		
Natural Gas		Crude Oil			
Estimated Reserves	Estimated Reserves		Production	Sales	
trillions cu. ft.	barrels		M.C.F.	M.C.F.	
1950	4.6	1,165,000,000	1950	74,935,496	51,453,999
1951	6.8	1,328,000,000	1951	83,842,985	58,014,216
1952	11.5	1,526,000,000	1952	95,735,951	64,455,827
1953	13.4	1,624,000,000	1953	113,894,403	73,786,054
1954	15.0	1,928,479,000	1954	135,545,629	88,571,956
1955	15.6	2,169,985,000	1955	168,808,357	108,413,497
1956	18.3	2,389,296,000	1956	200,191,107	115,650,027
1957	21.0	2,360,933,000	1957	244,224,735	136,434,809

Crude Oil Production, by Major Fields, Alberta (Cumulative 1914-46 -- Annual 1947-57) barrels '000

	Turner Valley	Leduc Woodbend	Redwater	Pembina	Other Areas	Totals	Cumulative Totals
1914-46	81,639				2,824		84,463
1947	5,022	373			987	6,382	90,845
1948	4,432	4,657	37		1,379	10,505	101,350
1949	3,827	9,689	4,793		1,459	19,768	121,118
1950	3,344	10,589	10,746		2,470	27,149	148,267
1951	2,952	13,743	23,178		6,042	45,915	194,182
1952	2,655	17,846	23,976		14,442	58,919	253,101
1953	2,405	21,361	23,282	39	29,729	76,816	329,918
1954	2,138	20,562	24,896	853	39,188	87,637	417,555
1955	2,056	20,421	28,507	14,850	47,201	113,035	530,590
1956	1,777	21,098	28,182	33,721	59,132	143,910	674,500
1957	1,595	18,295	21,185	37,185	59,232	137,492	811,991

Industry revenue from the sale of liquid hydrocarbons rose from \$14.3 million in 1946 to over \$356 million in 1957. Provincial government revenue from fees, rentals, royalties and crown reserves sales increased from \$0.9 million to a high of \$126.2 million in 1956. Industry expenditures on the development of Alberta oil resources rose from an estimated \$25 million in 1947 to an estimated \$536 million in the 1956 season.

The employment engendered by the development of Alberta oil and gas resources is of primary concern to the economy of the province. Approximately 2000 persons (exclusive of those working in refineries or in marketing) were engaged in the operation of oil firms in 1946 and drew salaries and wages totalling approximately \$4.5 million. By 1956 the number had risen to 21,000 and salaries and wages were in excess of \$98.6 million.



MANUFACTURING

The gross value of manufacturing in Alberta increased nearly tenfold between 1936 and 1956, rising from \$74 million to \$702 million. The average number of employees increased from nearly 12,000 to over 37,500. Salaries and wages tripled between 1936 and 1946; and nearly tripled again in the next decade, rising to \$121 million by 1956. The net value of production, or value added by manufacturing, rose from \$25 million to over \$279 million in the twenty years.

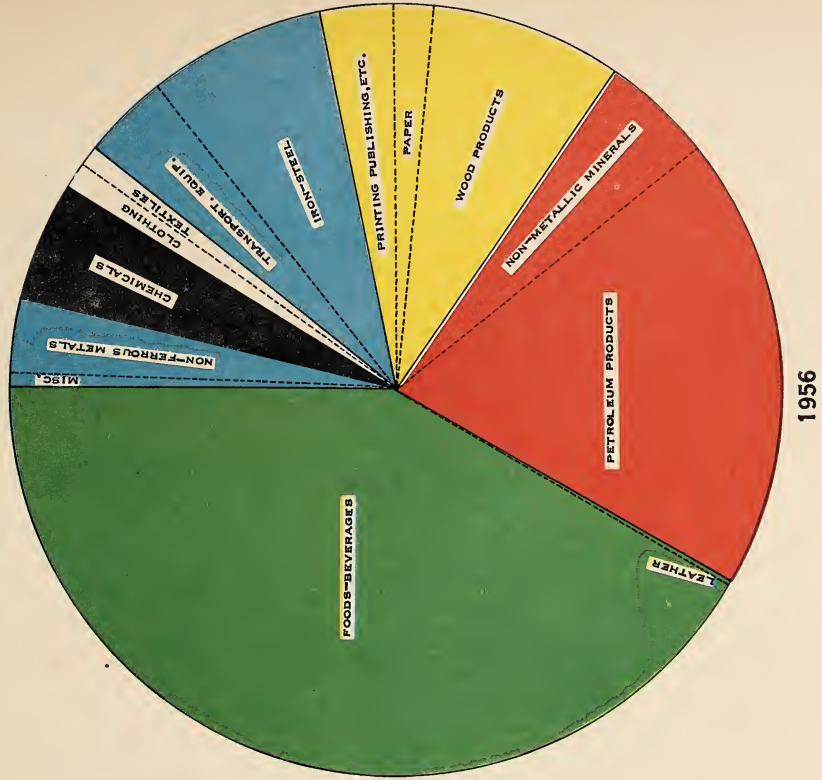
Gross Value of Manufacturing, by Industrial Groups, Alberta, 1936, 1946, 1956 (millions of dollars)						
	1936		1946		1956	
	Gross Value \$	Percent of Total %	Gross Value \$	Percent of Total %	Gross Value \$	Percent of Total %
Agricultural Produce Plants	49.9	67.4	173.6	67.5	294.3	41.9
Textile Products	1.5	2.0	4.4	1.7	13.5	1.9
Wood-Paper Products	7.8	10.5	30.3	11.8	90.4	12.9
Iron & Steel Products	4.3	5.8	13.1	5.1	78.2	11.2
Non-Metallic Mineral Products	9.5	12.8	28.5	11.1	165.4	23.6
Chemicals & Chemical Products	.6	.8	5.4	2.1	35.3	5.0
Non-Ferrous Metal Products)	.5	.7	1.7	.7	24.5	3.4
Miscellaneous)					.2	.1
TOTAL:	74.1	100 %	257.0	100 %	701.8	100 %

The chart opposite illustrates both the growth in volume of manufacturing and the relative changes which have taken place particularly since 1946. From 1936 to 1946 agricultural products processing plants accounted for over 67 per cent of all our manufacturing; by 1956 the proportion had fallen to 42 per cent. The proportion of production of non-metallic minerals (including petroleum products) rose from 13 per cent to 24 per cent; of wood and paper products from 11 per cent to 13 per cent; of iron and steel products from 6 per cent to 11 per cent; of chemicals and products from less than 1 per cent to 5 per cent; and of non-ferrous metals from less than 1 per cent to 4 per cent.

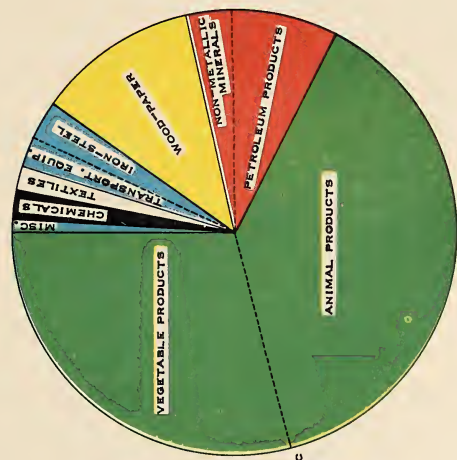
With the increasing population west of the Great Lakes - 4,386,000 in 1957 as compared with 3,466,000 in 1946 and 3,160,000 in 1936 - it is economically profitable for more firms to construct manufacturing plants in western Canada. From 1946 - 1957 over 800 plants of varying sizes were opened in Alberta alone.

Customs' port clearings in Alberta of manufactured and other goods rose from \$192.0 million in 1952 to \$260.1 million in 1956. These figures bolstered by imports from eastern Canada, give an indication of the market for manufactured products in Alberta alone.

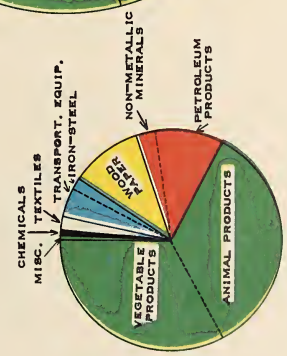
Principal Statistics of the Manufacturing Industries of Alberta, 1931-1956 (thousands of dollars)						
	Estab- lish- ments	Employ- ees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1931	795	10,343	12,589	35,970	25,314	62,641
1936	905	11,756	12,328	47,684	25,000	74,052
1941	1,108	16,761	20,152	94,177	45,958	142,651
1946	1,315	22,649	34,939	169,425	83,735	257,032
1951	2,118	29,105	69,136	309,431	141,650	458,281
1956	2,150	37,571	120,966	409,438	279,199	701,768



1956



1946



1936

GROSS VALUE OF PRODUCTION, MANUFACTURING INDUSTRIES, PERCENTAGE COMPARISON BY INDUSTRY AND PROPORTIONAL COMPARISON OF GROWTH ALBERTA, 1936, 1946 AND 1956

ELECTRIC POWER

The growth of the Central Electric Station Industry in the Province has been phenomenal. The kilowatt hours generated in 1957 were 2,243,000,000 as compared to 641,331,000 1947.

To keep pace with this growth the capacity of Central Stations has been increased from 158 to 596 megawatts during the past decade. This increase is accelerating. New plant under construction which is expected to be completed in 1958 totals 140 megawatts. Plans are underway in the next five years for an increase of approximately 500 megawatts. This increase will be made up from steam turbines, gas turbines and hydro.

Alberta's undeveloped hydro-electric possibilities total over one million H.P. The Province's vast resources of accessible coal account for more than half of all the coal in Canada. This coal is being strip-mined for the production of power and produces power at an amazingly low cost per KWH. When Alberta's resources of cheap natural gas are taken into account they add yet a third source of cheap power, so that the position of the Central Electric Station Industry is bright indeed. Industry in less fortunate areas is beginning to look to Alberta, where energy resources are practically inexhaustible.

At the end of December 1957, there were 31,561 miles of farm lines and during the year 2,647 miles had been constructed. With the development of the oil fields heavy transmission lines have been extended to many new areas in the Province so that large blocks of Central Station power at low rates are available in all of the settled areas of the Province.

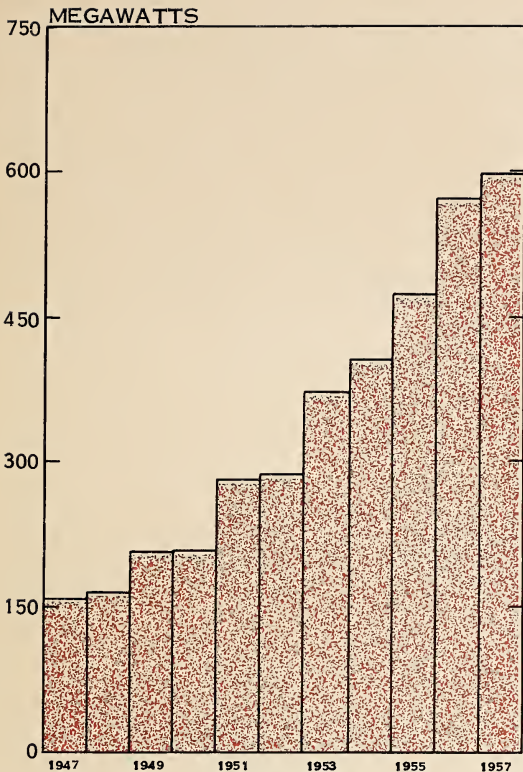
Since 1947 farm electrification has made great strides. At that time there were 2275 electrified farms, while at the end of 1957 over 41,130 of Alberta's farms enjoyed the benefits of Central Station electricity. It is expected that another 3,000 farms will be electrified during 1958. Most of the farms in the better soil areas of the Province have already taken service. From here on the extension of farm electrification into the more marginal areas will take place at a slower pace. The legislation passed in the spring of 1956 extending the term of financing from 10 to 25 years has been of considerable assistance to the farmers in these more marginal areas.

Electric Energy Generated by Central Electric Stations-Alberta (million KWH)		
1947		641
1948		724
1949		801
1950		869
1951		997
1952		1,174
1953		1,340
1954		1,498
1955		1,729
1956		2,019
1957		2,243

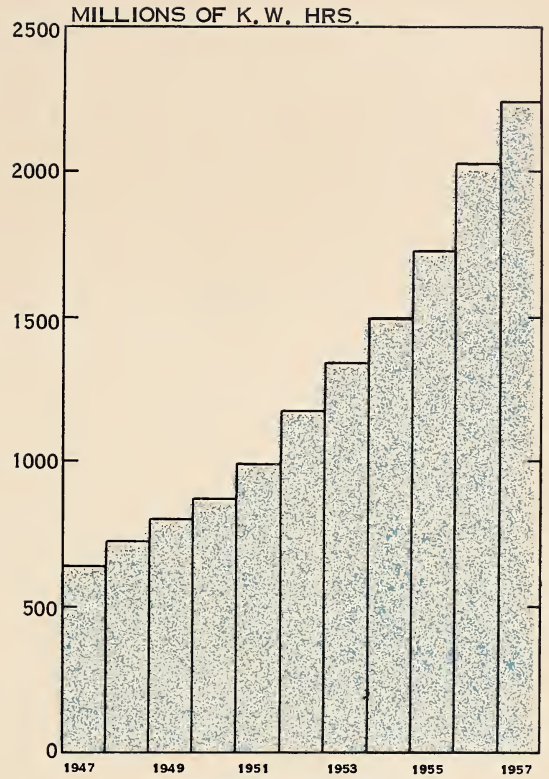
Capacity of Central Electric Stations, Alberta (M.W.)		
1947		158
1948		165
1949		207
1950		208
1951		280
1952		288
1953		372
1954		405
1955		477
1956		572
1957		596

Number of Farms & Number Served by Central Electric Stations, Alberta		
	<u>No. of Farms</u>	<u>No. Farms Served</u>
1947	88,500 *	2,275
1948	87,400 *	3,393
1949	86,300 *	5,017
1950	85,200 *	11,032
1951	84,315	13,479
1952	83,300 *	18,055
1953	82,300 *	24,181
1954	81,300 *	30,504
1955	80,300 *	34,768
1956	79,424	37,658
1957	78,400 *	41,130

* Estimated

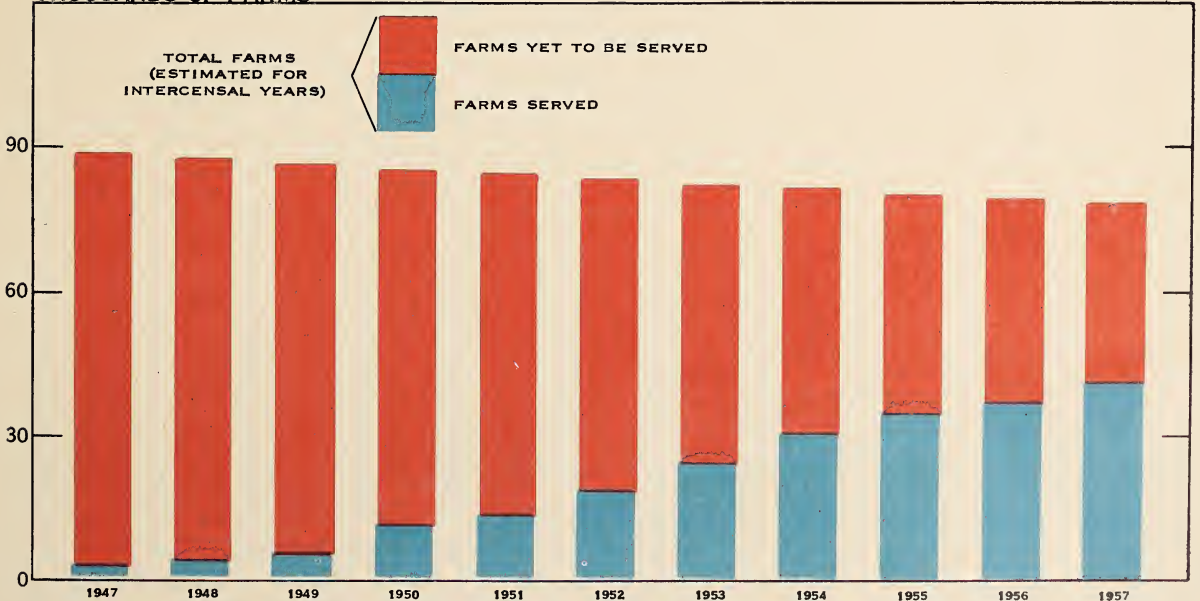


CAPACITY OF
CENTRAL ELECTRIC STATIONS
ALBERTA, 1947-57



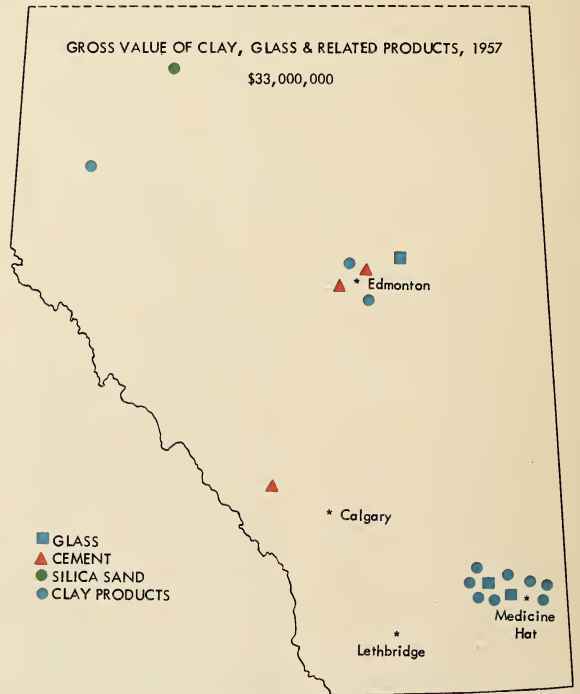
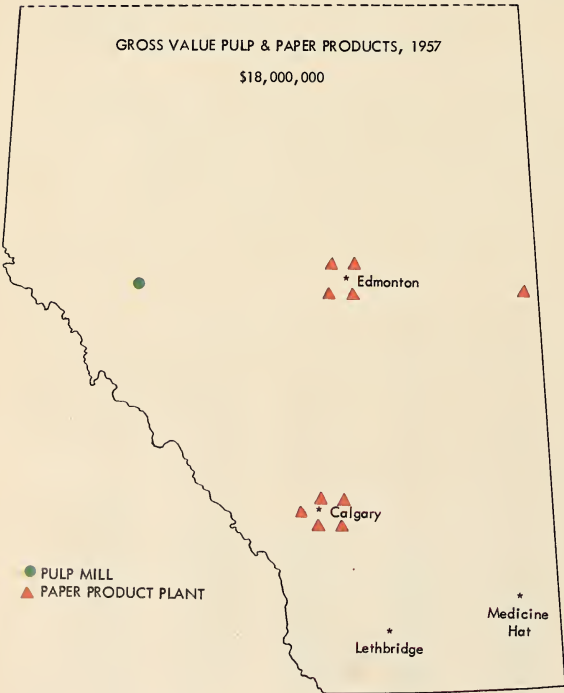
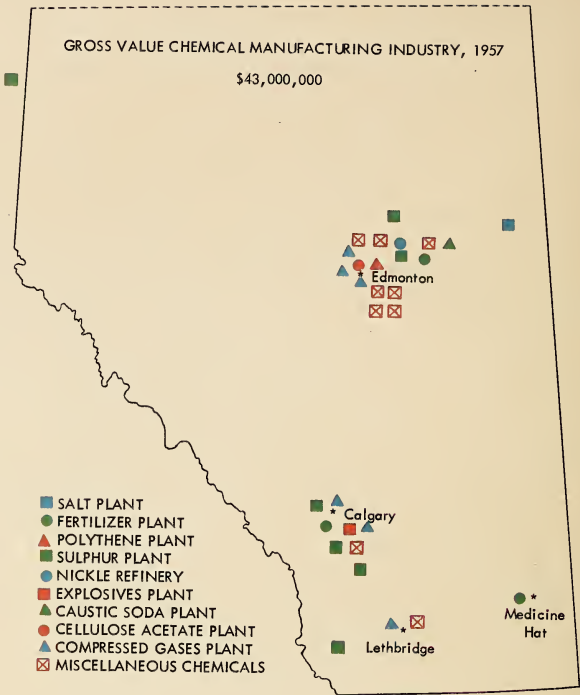
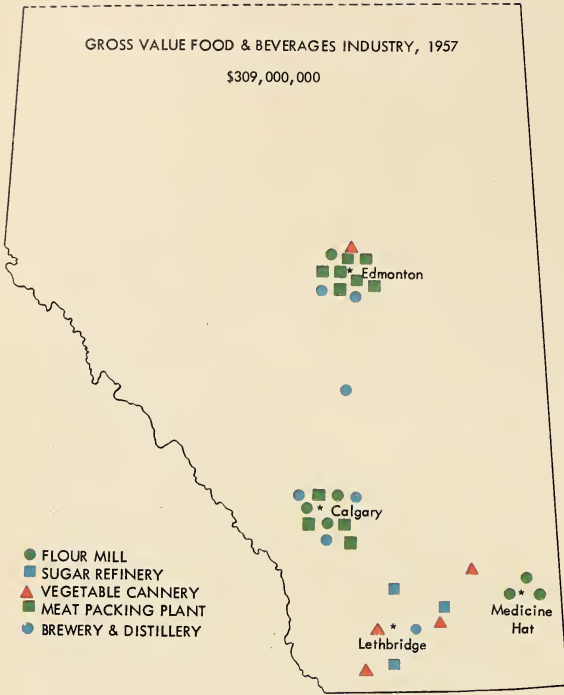
ELECTRIC ENERGY
GENERATED BY CENTRAL ELECTRIC
STATIONS, ALBERTA, 1947-57

THOUSANDS OF FARMS

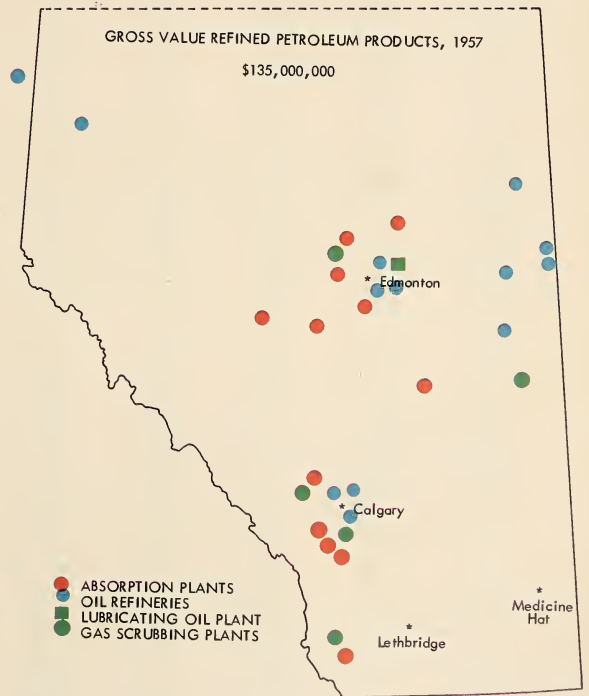
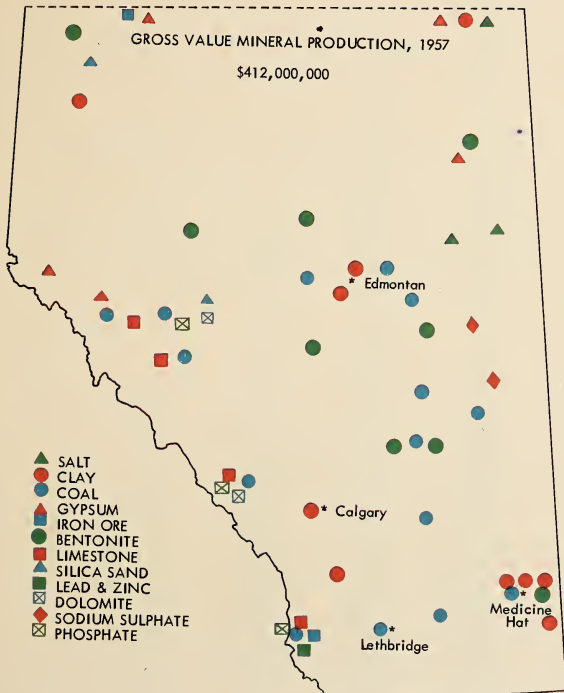
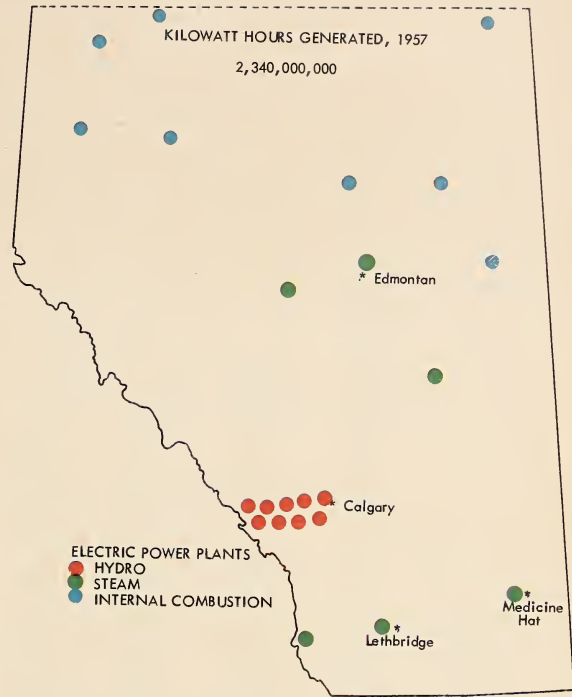
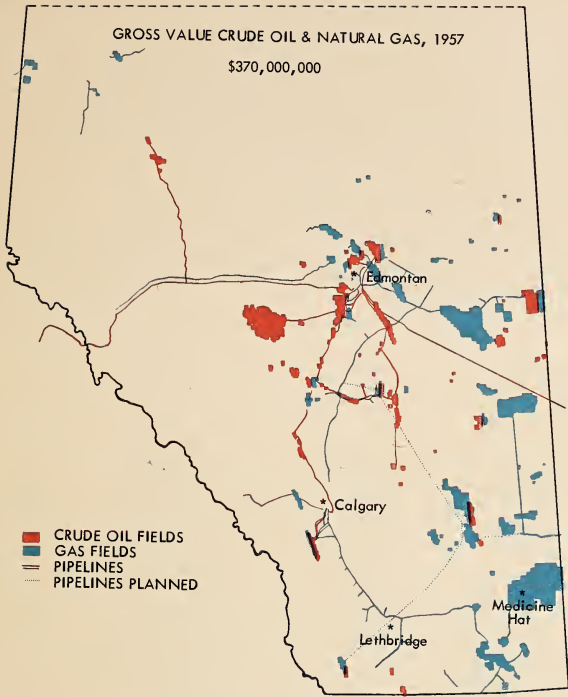


NUMBER OF FARMS AND NUMBER SERVED BY CENTRAL ELECTRIC STATIONS
ALBERTA, 1947-57

INDUSTRIAL



RESOURCES



CONSTRUCTION INDUSTRY

The Alberta construction industry has experienced a period of expansion since the close of the second World War. During the war and the immediate post-war years construction materials were often in short supply, and the consequent backlog of building contracts made for reasonably constant employment. In later years new methods of erecting temporary enclosures especially around larger building projects, enabled building to proceed unhampered by changes in weather. Similarly residences are having the interior finishing work done during the winter months. Even strictly out-door work, such as the laying of sewer and water mains, now proceeds unabated during the winter months.

Building permits issued by the municipalities of the province provide one index of the general volume of construction. One of the encouraging features to be noted is that the smaller centres of the province have had a substantial share of the construction work. The dollar value volume of permits issued by the towns and villages increased eightfold between 1948 and 1957. That of the seven cities more than tripled, but it must be borne in

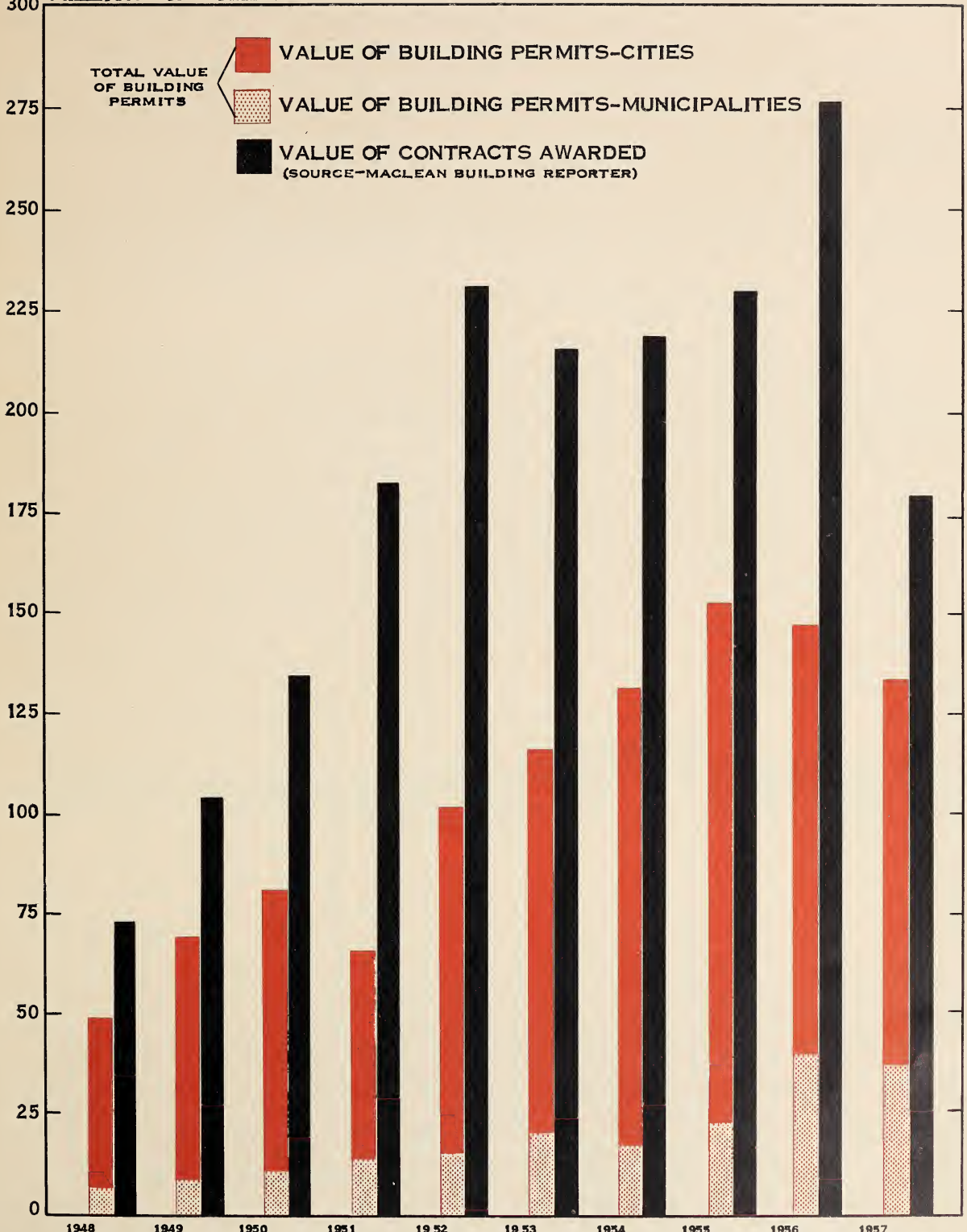
mind that building permits cover work done only within the corporate limits of the city or town.

	Value of Building Permits Alberta Municipalities		Value of Contracts Awarded Alberta
	Cities	Other	
	\$ '000	\$ '000	\$ '000
1948	48,214	5,323	74,072
1949	69,624	10,542	104,381
1950	80,568	8,300	134,879
1951	66,437	10,910	183,075
1952	100,085	13,172	231,191
1953	113,833	21,758	215,011
1954	132,771	15,059	219,205
1955	152,555	23,899	230,310
1956	147,186	41,015	275,613
1957	134,458	39,678	179,230

The graph, based on building permits issued by the cities and on figures compiled by MacLean Building Reports, indicates the increase in construction activity in the province since 1948. Figures which indicate the actual dollar volume of construction in the province are more difficult to provide in a historical series. In the table below, prepared by the Dominion Bureau of Statistics, is set forth the approximate value of construction work performed, the average number of workmen, their salaries and wages and the cost of materials used, over the period 1953-1957.

	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
	- millions of dollars -				
Value of Building Construction:	282.1	288.0	300.5	345.7	315.3
Value of Engineering Construction:	273.9	262.3	323.1	402.0	392.5
Total Value:	556.0	550.3	623.6	747.7	707.8
Average Number of Employees:	50,570	50,934	52,641	59,039	56,005
Salaries & Wages:	179.3	172.9	187.3	226.1	214.1
Cost of Materials:	264.6	247.4	284.5	339.5	321.5

MILLIONS OF DOLLARS



VALUE OF BUILDING PERMITS ISSUED BY CITIES AND OTHER MUNICIPALITIES, AND VALUE OF CONSTRUCTION CONTRACTS AWARDED, ALBERTA, 1948-1957

PUBLIC & PRIVATE INVESTMENT

In 1948 the Dominion Bureau of Statistics began the publication of annual estimates of public and private investment in each province and for Canada.

In the ten year period 1948 - 1957 such investments in Alberta rose from \$390.1 million to a high of \$1,119.0 million by 1956. Total capital and maintenance expenditures in the period exceeded \$7,592.4 million.

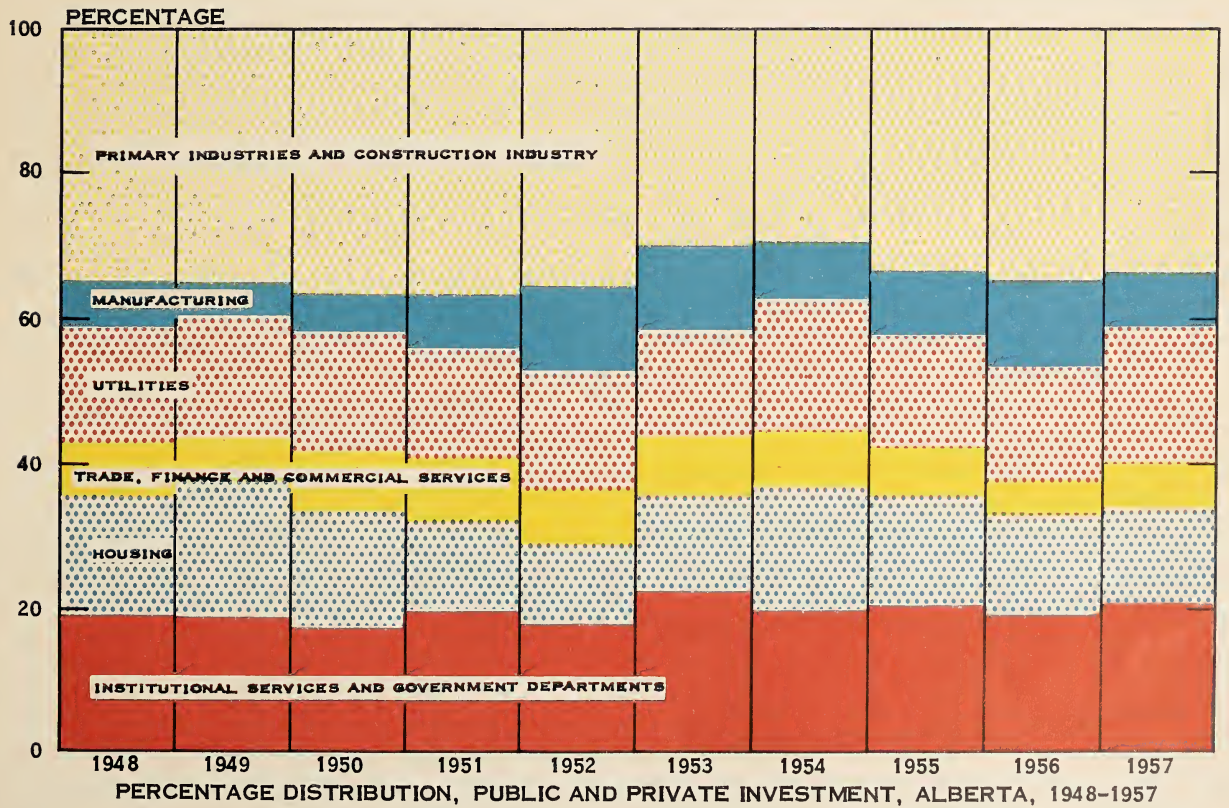
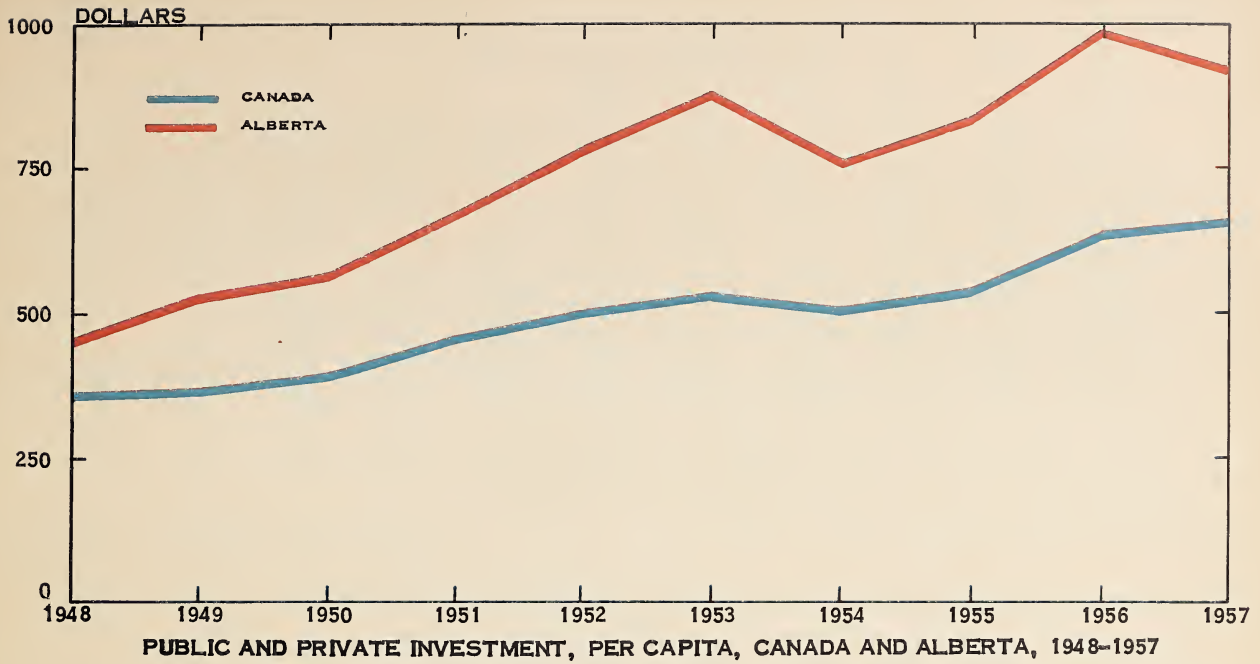
The primary industries and the construction industry together accounted for the largest share of expenditures each year, rising from \$164.8 million to a high of \$390.7 million in 1956. Included in these figures are the large investments in the development of Alberta petroleum resources.

Expenditures on manufacturing plants and equipment rose from \$20.6 million in 1949 to a high of \$130.1 million in 1956.

The large investments in utilities were made necessary by the rapid growth of major urban centres of population, the installation of utilities in the smaller centres, and the expansion of power and gas facilities to meet the needs of the increasing industrialization of the province. Trade, finance and commercial services capital expenditures make up the smallest share of the total. Expenditures on housing comprised between one-fifth and one-seventh of the total each year.

Investment per capita rose from \$457 in 1948 to a high of \$996 in 1956. Comparative minimum and maximum per capita figures for Canada were \$362 in 1948 and \$659 in 1957.

PUBLIC AND PRIVATE INVESTMENT IN ALBERTA — 1948 - 1957										
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
	Millions of dollars									
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Primary Industries and Construction Industry	**	164.8	192.5	234.1	272.8	269.0	238.0	308.2	390.7	364.7
Manufacturing	23.4	20.6	24.4	45.1	86.4	104.1	64.0	78.0	130.1	77.0
Utilities	61.8	79.2	86.9	97.1	125.1	130.0	144.3	143.6	176.9	203.3
Trade, Finance and Commercial Services	**	25.9	41.4	54.7	55.1	72.1	60.9	59.9	51.0	63.2
Housing	65.6	91.1	85.8	77.9	87.0	123.0	140.2	140.1	155.6	144.8
Institutional Services and Government Departments	74.3	88.0	90.2	125.9	134.8	198.9	159.7	188.3	214.0	221.9
TOTAL	390.1	469.6	521.2	634.8	761.2	897.1	807.1	918.1	1118.3	1074.9
Per Capita:										
Alberta	457	531	571	676	782	887	764	842	996	927
Canada	362	374	398	462	503	535	507	542	640	659
		** not available								



PERSONAL INCOME

Personal income includes all income in cash or in kind, whether earned or unearned, received by persons. "Persons" include individuals, private non-commercial institutions such as hospitals, universities and charitable organizations, and private pension funds.

Included in personal income are wages, salaries, commissions and other labour income such as free board and room; net income of farmers and other unincorporated businesses; interest and net rental income of persons; transfer payments such as family allowances, unemployment insurance benefits, old age pensions and other payments for which no specific service is rendered; military pay and allowances; and a negative item, employer and employee contributions to social insurance and government pension funds. Undistributed corporation profits and profits of government operated enterprises are excluded from personal income.

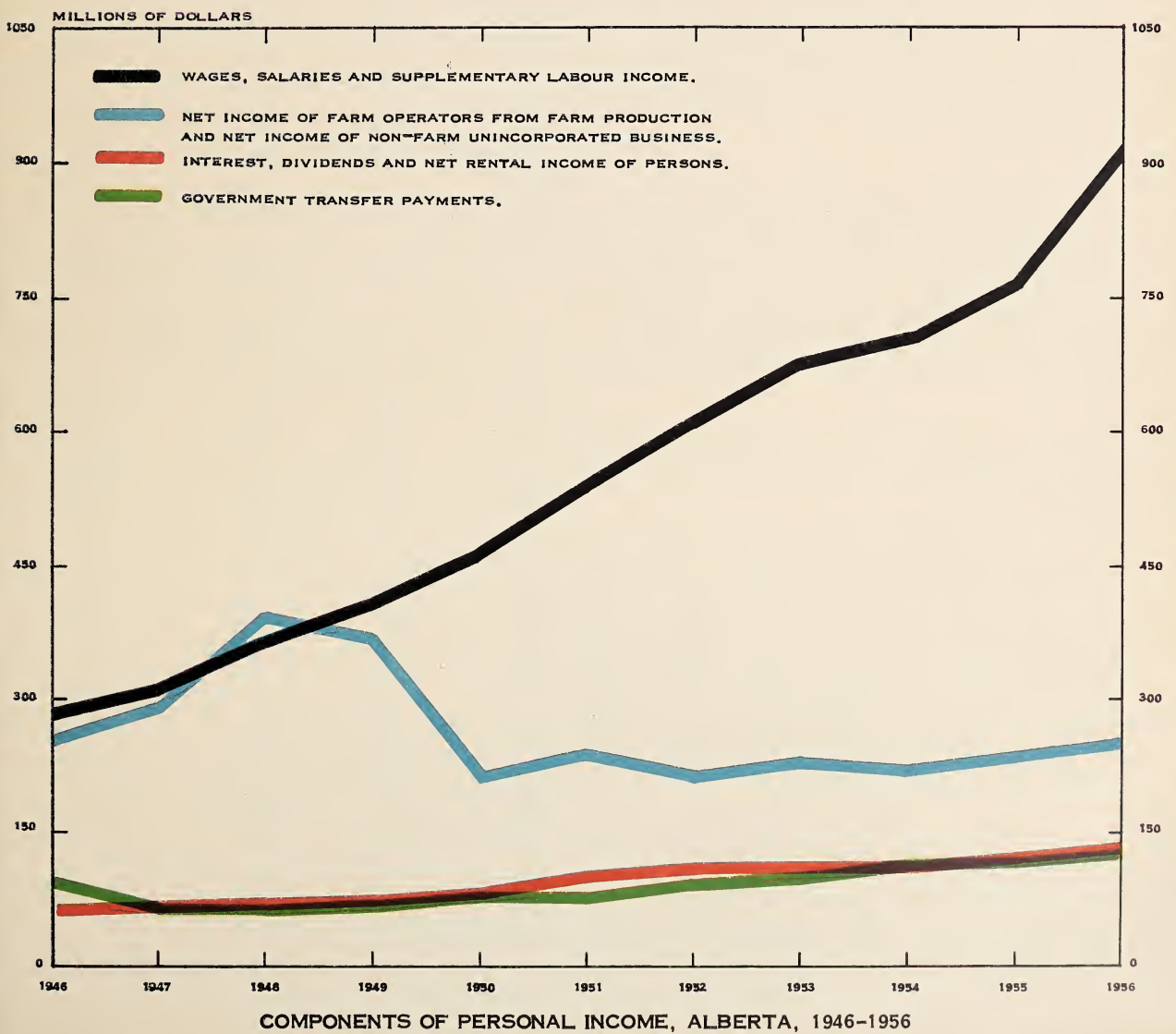
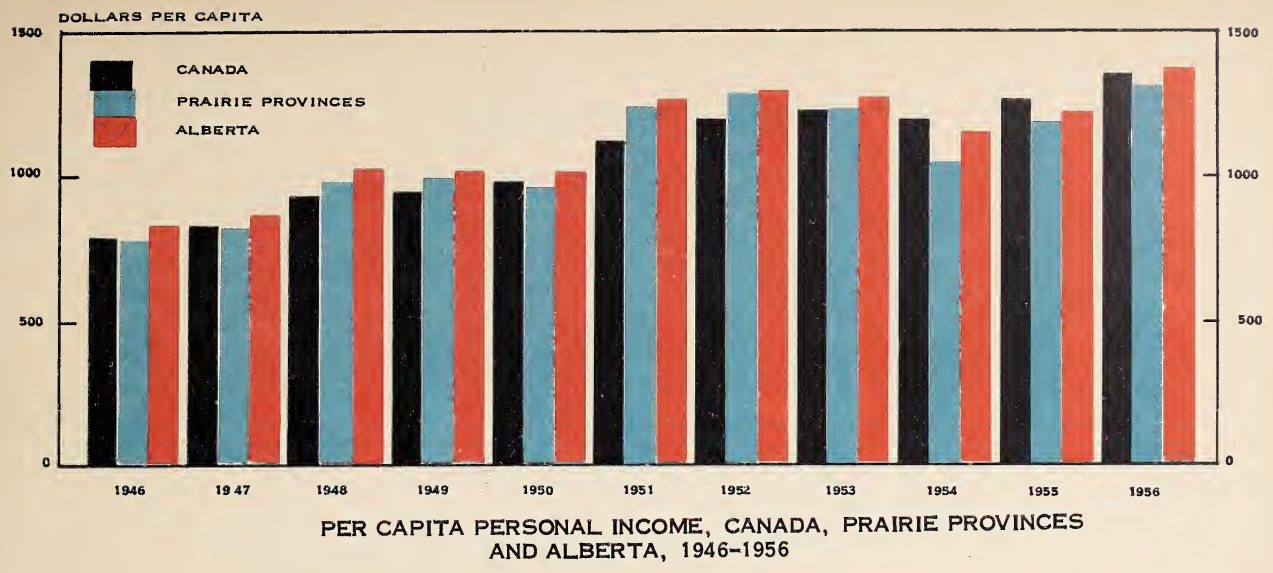
On a per capita basis, the personal income of Albertans has been above that of residents of the three prairie provinces as a whole since 1946; and only in 1954 and 1955 was the all-Canada average higher. With 7 per cent of the national population in 1956, Albertans received 7.1 per cent of total personal income.

Per Capita Personal Income 1946-1956 Prairie			
	Canada	Provinces	Alberta
	\$	\$	\$
1946	794	782	829
1947	828	820	859
1948	931	989	1,019
1949	949	996	1,012
1950	978	963	1,009
1951	1,120	1,230	1,256
1952	1,191	1,282	1,288
1953	1,221	1,234	1,263
1954	1,191	1,047	1,149
1955	1,255	1,181	1,212
1956	1,350	1,313	1,370

It is of particular significance that despite the "levelling off" of farm income since 1950, the rapid growth of other income sources -- manufacturing and mining specifically -- has served to raise total per capita income above the all-Canada average. Total Alberta income is no longer subject to the violent year-to-year fluctuations characteristic of a largely agricultural economy. This recent development has been most pronounced in retail and wholesale businesses.

Components of Personal Income, Alberta, 1946-1956

	Wages, Salaries & Supplementary Labour Income	Net Income of Farm Operators from Farm Production & Net Income of Non-Farm Unincorporated Business	Interest, Divi- dends & Net Rental Income of Persons	Government Transfer Payments	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
1946	281,000	243,000	55,000	83,000	666,000
1947	310,000	282,000	61,000	59,000	709,000
1948	366,000	386,000	64,000	58,000	870,000
1949	406,000	362,000	68,000	63,000	896,000
1950	460,000	316,000	77,000	72,000	921,000
1951	534,000	481,000	96,000	72,000	1,179,000
1952	608,000	458,000	103,000	87,000	1,253,000
1953	674,000	405,000	105,000	96,000	1,278,000
1954	704,000	295,000	105,000	109,000	1,215,000
1955	762,000	320,000	118,000	117,000	1,322,000
1956	901,000	385,000	126,000	122,000	1,539,000



TRADE AND COMMERCE

During the period 1940-57 the gross volume of retail trade rose from \$197.7 million to \$1206.3 million, an increase of 510 per cent. Per capita retail sales rose from \$286 to \$1040 (or by 264 per cent).

Total sales of all wholesale outlets, including manufacturers' sales branches, petroleum bulk stations, agents and brokers, assemblers of primary products and wholesalers proper, increased from \$323.1 million in 1941 to \$1095.0 million in 1951. Sales of wholesalers proper increased from \$120.6 million to \$392.6 million over the same period. 1957 sales are estimated at \$795.2 million.

Sales volume is closely related to concentration of population and personal income. The following figures (see map on page 32) are based on 1956 census data: out of a total population of 1,123,000—

689,000 live within 100 miles of Red Deer.
534,000 live within 100 miles of Camrose.
514,000 live within 100 miles of Edmonton.
355,000 live within 100 miles of Calgary.
55,000 live within 100 miles of Grande Prairie.
88,000 live within 50 miles of Lethbridge.
34,000 live within 50 miles of Medicine Hat.

These trading areas overlap, of course, but they indicate the main concentrations of population.

It should be noted that the Calgary and Lethbridge market areas extend into British Columbia as far as Nelson and Trail while the area tributary to Edmonton covers not only the whole northern part of the province but the North West Territories and the Yukon as well. On the other hand places such as Red Deer, Camrose and Grande Prairie are rapidly developing as commercial centres and are beginning to supplant, locally, the larger cities as distribution points.

The Alberta population increased from 796,000 in 1941 to 1,160,000 in 1957, an increase of 46 per cent in the number of persons requiring goods and services. Total population of the four western provinces increased from 3,240,000 in 1941 to 4,386,000 in the same period, an increase of 35 per cent.

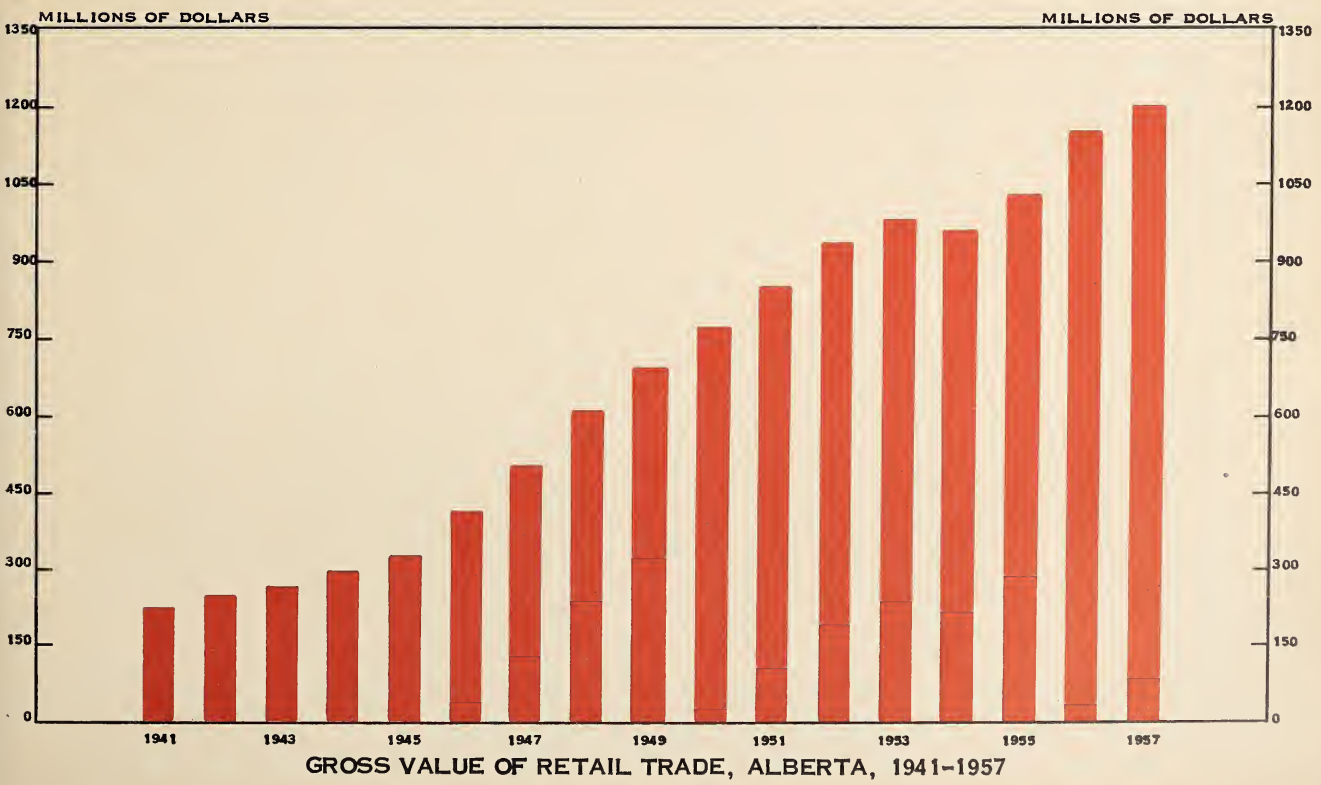
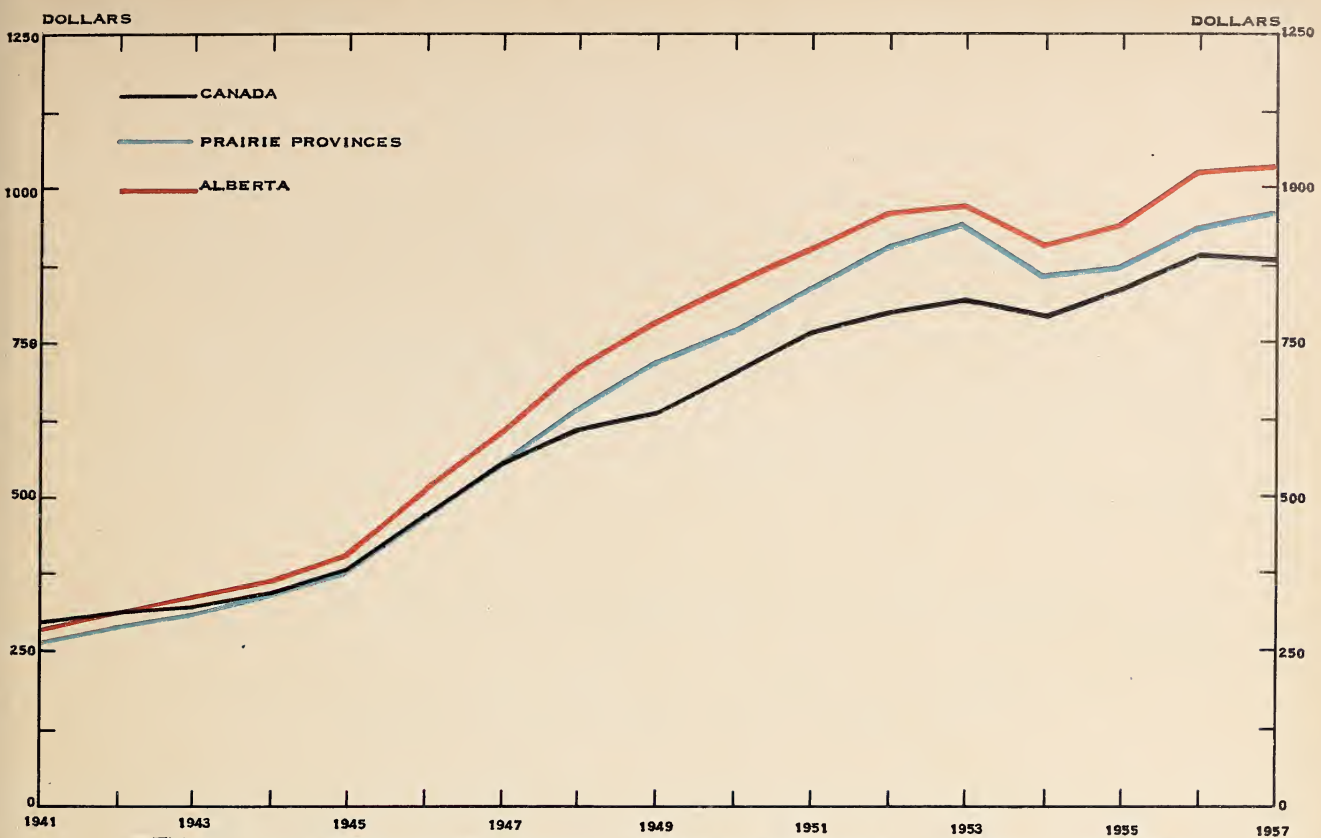
Per Capita Retail Trade

	Alberta	Prairie Provinces	Canada
1941	\$ 286	\$ 252	\$ 297
1942	313	277	311
1943	338	300	321
1944	366	333	343
1945	407	370	379
1946	518	464	471
1947	611	550	555
1948	716	636	611
1949	788	711	634
1950	851	762	701
1951	909	833	763
1952	965	901	798
1953	976	936	817
1954	912	857	789
1955	949	873	835
1956	1,032	936	889
1957	1,040	959	883

Gross Volume Retail Trade (millions of dollars)

1941	\$ 228	\$ 609	\$ 3,415
1942	243	650	3,619
1943	266	704	3,786
1944	296	788	4,093
1945	329	877	4,573
1946	416	1,096	5,787
1947	504	1,321	6,963
1948	611	1,551	7,835
1949	697	1,758	8,532
1950	777	1,914	9,617
1951	854	2,122	10,693
1952	939	2,354	11,532
1953	987	2,510	12,128
1954	964	2,359	12,066
1955	1,035	2,452	13,112
1956	1,159	2,671	14,298
1957	1,206	2,780	14,654

western provinces increased from 3,240,000 in 1941 to 4,386,000 in the same period, an increase of 35 per cent.



SALARIES AND WAGES

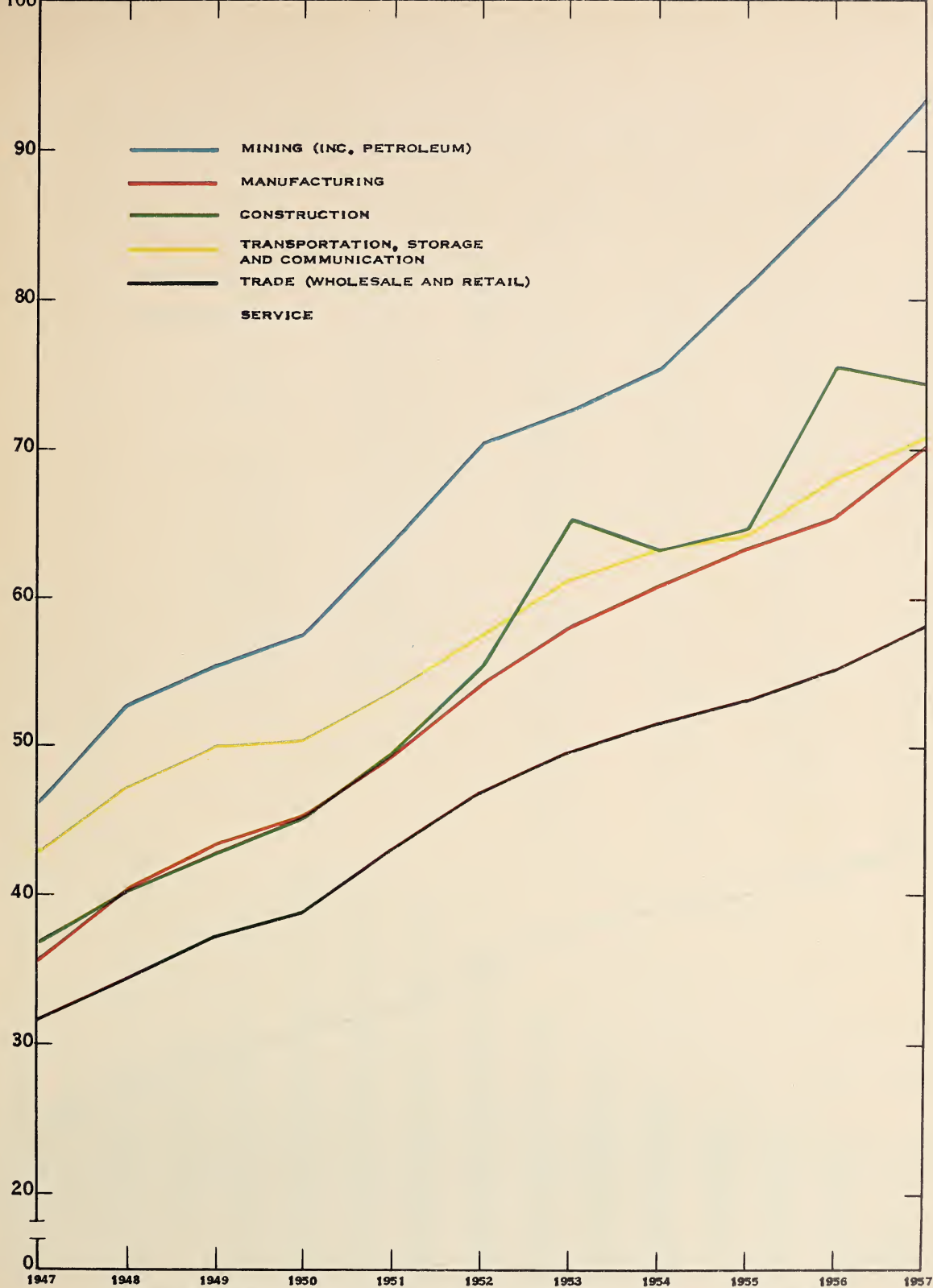
The accompanying graph on average weekly salaries and wages in six non-agricultural industries indicates the trend of increasing salaries and wages from 1947 to 1957. Over the period there has been in each industry a year-by-year increase in average weekly salaries and wages with the exception of the construction industry 1957.

During 1957 the employees in the mining industry ranked first with average weekly salaries and wages of \$93.20. This figure represents a 103 per cent increase over the 1947 figure of \$46.00. The construction industry has experienced the greatest percentage gain in salaries and wages since 1947. Construction workers' earnings were second only to the mining industry: \$74.00 in 1957, a 104 per cent increase over the 1947 figure of \$36.30. The transportation industry was third with \$70.80, followed by manufacturing with \$70.00, trade with \$58.30, and service with \$43.70.

The section of the table below covering the period January to December 1957 illustrates the effect of seasonal variations in employment on the earnings of employees in the different industries.

Average Weekly Salaries and Wages, Six Non-agricultural Industries Alberta, by years 1947-1957, by months 1957							
	Mining	Manufacturing	Construction	Transportation	Trade	Service	Industrial Composite
	\$	\$	\$	\$	\$	\$	\$
1947	46.0	35.2	36.3	42.6	31.4	24.3	37.2
1948	52.6	40.1	40.0	47.3	34.3	27.5	41.5
1949	55.6	43.6	42.5	49.9	37.0	29.5	44.4
1950	56.9	45.1	45.0	50.1	38.7	30.5	45.6
1951	63.9	49.4	49.8	54.7	43.1	32.6	50.4
1952	70.1	54.4	55.2	57.9	47.1	35.0	54.9
1953	72.8	58.0	65.0	61.8	49.8	37.5	58.8
1954	75.9	60.6	63.0	63.4	51.9	38.6	60.1
1955	80.7	63.0	64.7	64.1	53.5	39.6	62.0
1956	87.5	65.5	75.3	67.7	55.5	41.7	66.6
1957	93.2	70.0	74.1	70.8	58.3	43.7	69.3
1957							
Jan.	91.0	66.6	66.1	69.9	54.7	44.4	66.0
Feb.	93.3	68.7	77.7	68.4	57.2	43.5	68.7
Mar.	94.0	68.9	78.0	71.1	57.8	44.9	70.0
Apr.	91.9	69.3	76.9	70.6	58.0	44.1	69.4
May	91.9	69.7	70.7	69.1	57.1	43.9	67.9
June	93.2	70.4	73.0	69.1	58.8	43.5	69.2
July	95.6	71.8	73.9	71.9	60.0	42.1	70.3
Aug.	91.4	70.2	73.9	71.0	59.3	43.1	69.1
Sep.	92.7	70.6	74.1	71.8	59.8	41.8	69.8
Oct.	94.6	69.9	78.4	71.1	59.4	41.7	70.4
Nov.	94.2	70.9	72.0	70.8	59.0	45.2	69.8
Dec.	94.7	72.4	74.2	74.6	58.5	46.3	71.0

DOLLARS PER WEEK



AVERAGE WEEKLY SALARIES AND WAGES IN SIX NON-AGRICULTURAL INDUSTRIES, ALBERTA, 1947-1957

POPULATION

BIRTHS, DEATHS, NATURAL INCREASE AND TOTAL INCREASE IN POPULATION
ALBERTA, 1939-1957, WITH ESTIMATES TO 1985

	Births *	Deaths *	Net Natural Increase	Net Immigration** or (-) Emigration	Net Inc. or (-) Dec.	Total Population in thousands
	No.	No.	No.	No.	No.	No.
1939	16,470	5,789	10,681	- 6,000	5,000	786
1940	17,359	6,203	11,156	- 7,000	4,000	790
1941	17,308	6,385	10,923	- 5,000	6,000	796
1942	18,317	6,091	12,226	-32,000	-20,000	776
1943	19,290	6,524	12,766	- 4,000	9,000	785
1944	19,372	6,320	13,052	10,000	23,000	808
1945	19,939	6,454	13,485	-13,000		808
1946	22,184	6,601	15,583	-21,000	- 5,000	803
1947	24,631	6,543	18,088	4,000	22,000	825
1948	24,075	6,987	17,088	12,000	29,000	854
1949	24,935	7,083	17,852	13,000	31,000	885
1950	25,625	6,856	18,769	9,000	28,000	913
1951	27,003	7,167	19,836	6,000	26,000	939
1952	29,105	7,345	21,760	9,000	31,000	973
1953	31,376	7,646	23,730	8,000	32,000	1,012
1954	33,593	7,520	26,073	19,000	45,000	1,057
1955	34,357	7,956	26,401	8,000	34,000	1,091
1956	32,905	7,589	25,316	7,000	32,000	1,123
1957	36,661	8,465	28,196	9,000	37,000	1,160
1961	37,000	9,000	28,000			1,261
1966	39,000	13,000	26,000			1,392
1971	44,000	14,400	30,000			1,531
1976	49,000	15,000	34,000			1,691
1981	54,000	17,000	37,000			1,867
1985	59,000	20,000	39,000			2,061

Not Estimated

** Estimated. * Exclusive of stillbirths.

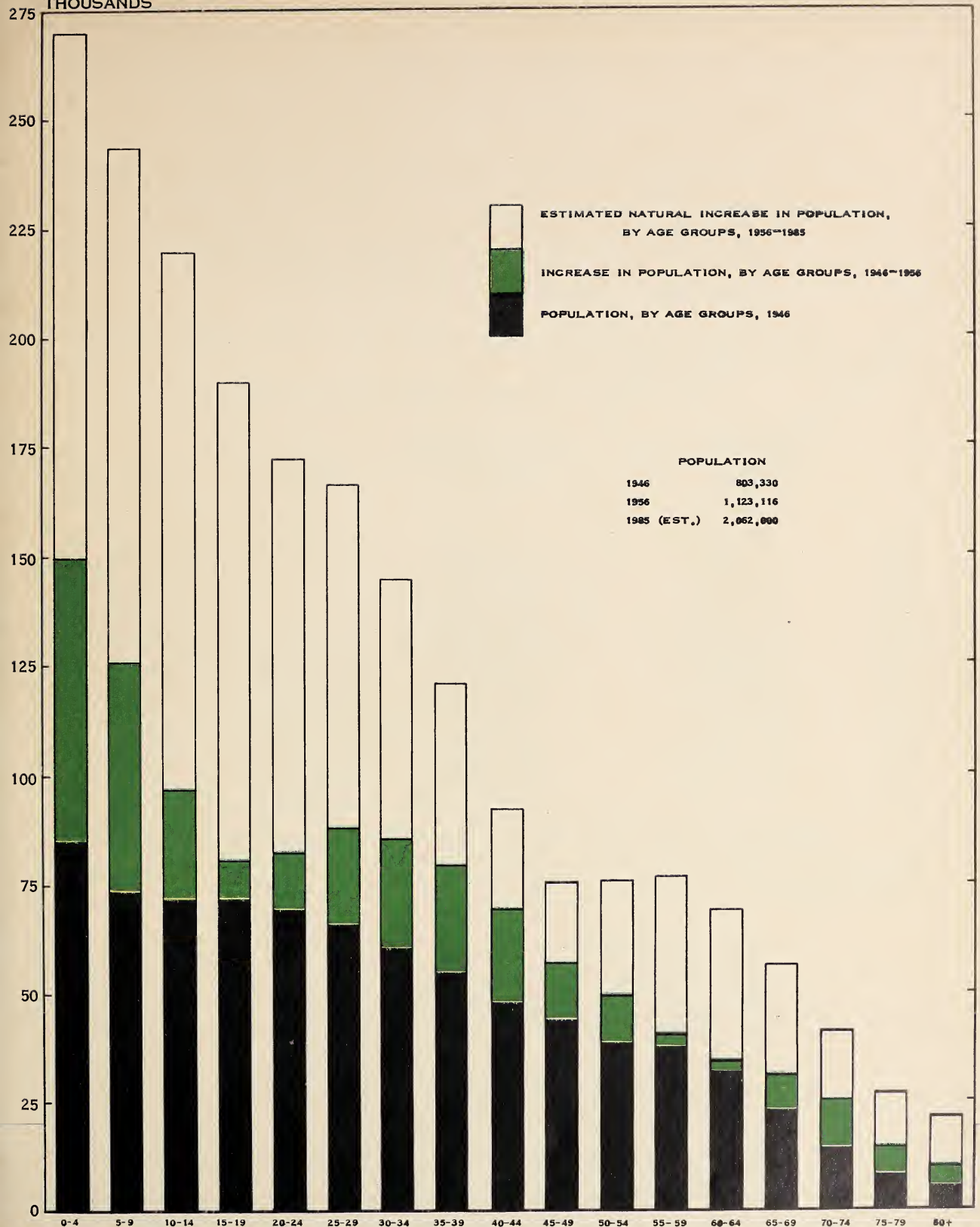
The population of Alberta increased to 1,160,000 in 1957 from 786,000 in 1939, or by 48 per cent. Since 1946, when the total population was estimated at 803,000 there has been a steady net immigration into the province from other parts of Canada, Europe, and the United States of America. The population increase for the period 1946-1957 was 44 per cent.

The chart opposite shows the actual population in 1946 and 1956 by age groups and an estimate (excluding immigration and emigration) of the population of the province in 1985. The table above shows estimated population at five-year intervals to that date. Particularly notable is the current shortage (due to a low birthrate in the 1930's) of persons in the 15 to 24 years of age groups. Equally notable is the surge of population in the 0 to 9 years of age groups.

Along with the increasing population has come an accelerating trend towards urbanization. Between 1906 and 1941 the proportion of population in rural areas fell slowly from 69 per cent to 62 per cent. By 1951 it had dropped to 48 per cent; and by 1956 to 43 per cent. The ten cities comprise 77 per cent of the urban population or 44 per cent of the total population of the province.

The main axis of population as shown by the population density map on page 32 runs along the Lethbridge, Calgary, Edmonton line and then veers eastward. Another significant concentration is in the Peace River Block. In 1956 over half the population of Alberta (689,000 persons) lived within a one hundred mile radius of the City of Red Deer.

THOUSANDS



ESTIMATED NATURAL INCREASE IN POPULATION,
BY AGE GROUPS, 1956-1985

INCREASE IN POPULATION, BY AGE GROUPS, 1946-1956

POPULATION, BY AGE GROUPS, 1946

POPULATION

1946	803,330
1956	1,123,116
1985 (EST.)	2,062,000

POPULATION DISTRIBUTION BY AGE GROUPS, ALBERTA - 1946, 1956 AND ESTIMATED NATURAL INCREASE TO 1985

PUBLIC FINANCE

Provincial revenues are obtained mainly from the following sources:

Petroleum and Natural Gas - royalties, rentals, and sales of crown leases and reservations.

Dominion-Provincial Taxation Agreement - Rental of provincial taxation fields to Canada.

Motor Vehicles and Fuel Oil Tax - Licenses from the registration of motor vehicles, and tax on the sale of fuel oil.

Alberta Liquor Control Board - Profit on sale of liquor.

Expenditures include debt retirement and construction of public roads and buildings, in addition to ordinary government services.

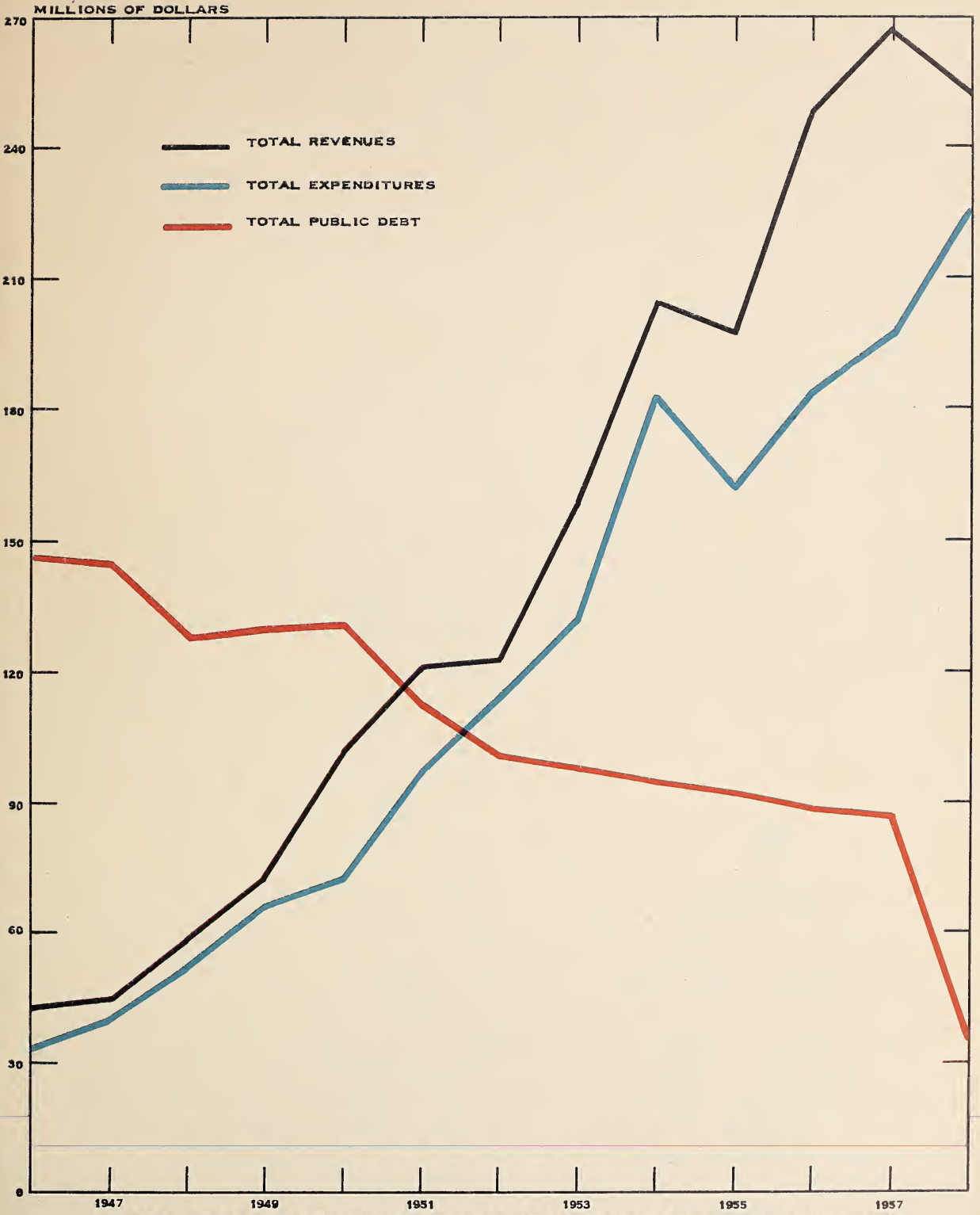
Public Finance, Government of Alberta, 1946-1958				
	Total Revenues Income & Capital Account \$	Total Expenditures Income & Capital Account \$	Loans and Advances \$	Public Debt \$
1946	42,200,799	31,889,943	3,000,000	146,501,764
1947	44,558,752	38,530,470		145,068,324
1948	57,692,728	50,952,245		128,031,179
1949	72,173,017	64,644,714		129,898,282
1950	101,486,778	71,648,643		130,600,688
1951	120,456,977	96,354,968	6,978,353	111,830,132
1952	122,563,953	113,062,237	11,055,650	100,437,091
1953	158,307,775	131,759,329	12,861,070	97,452,424
1954	204,130,274	181,941,345	42,399,206	94,349,738
1955	197,765,461	161,862,719	49,411,418	91,598,796
1956	247,653,534	182,969,231	48,661,473	88,213,213
1957	266,874,121	196,548,697	36,396,327	86,137,772
1958 est.	252,626,425	224,969,370	60,500,000	34,000,000

Surpluses of income and capital revenues over income and capital expenditures have provided funds to finance the capital requirements of Alberta municipalities and schools and of the Alberta Government Telephones. Loans and advances outstanding as at March 31, 1957 amount to \$250,149,889 and are made up of the following:

Loans to Municipalities	\$153,816,229
Loans to School Boards	25,481,406
Loans to Rural Electrification Associations	11,271,890
Loans to Alberta Government Telephones	57,997,444
Miscellaneous loans and advances	1,582,920
	<u>\$250,149,889</u>

In addition to the above loans and advances, the Province of Alberta had on hand the following cash and investments as at March 31, 1957:

Cash	\$ 36,266,371
Government of Canada bonds	46,974,266
Provincial bonds	50,953,680
	<u>\$134,194,317</u>



TOTAL REVENUE AND EXPENDITURE, (INCOME AND CAPITAL ACCOUNTS) AND TOTAL PUBLIC DEBT, GOVERNMENT OF ALBERTA, 1946-1958



PROVINCE OF
ALBERTA

POPULATION DENSITY

EACH DOT REPRESENTS 1000 PERSONS

EXCEPT:

- Edmonton - 226000
- Calgary - 182000
- Lethbridge - 29000
- Medicine Hat - 21000

Compiled from 1956 Census of Canada

REFERENCE

Centre of population 1956 †

Railways —

prepared by;

Bureau of Statistics,
Dep't of Industries & Labor

9 5200 10072000

