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1981 Census of Canada

<u>SCHOOLING</u> IN CANADA

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INTRODUCTION

This brief report takes a look at some of the recently released 1981 Census of Canada schooling information in the light of three main questions. First, how much schooling or education do Canadians have? Another way of phrasing this guestion is to ask what is Canada's stock of educated human resources, or is it possible to take an educational inventory of Canada? Second, how much schooling is actually going on in any given school year? In other words, how many people are attending school? And the third and last question this report attempts to answer is: How is schooling related to economic factors such as unemployment and to social characteristics such as ethnicity and religion? We begin with the first question. What is Canada's educational stock?

Canada's Educational Stock

The sum total of all of the formal education received by all of the people in Canada represents this country's educational stock. There are three ways in which this total educational stock is produced. The first way is for persons in Canada to attend school in Canada, the second way is through the admission of immigrants who have attained a certain educational level, and the third way is for Canadian residents to go outside of Canada for their schooling, and return to Canada.

Of the three ways, the first is the most usual. Over 84% of Canada's population was born in Canada, thus most Canadians will have received their formal schooling as a result of attendance at Canadian educational institutions. Also many foreign immigrants continue or complete their schooling in Canada. A recent Statistics Canada survey indicates that of almost 4 million persons who have a post-secondary degree, certificate or diploma, seven out of eight have obtained their qualification from a Canadian educational institution.

Another way of looking at the educational stock of a country is to see it as an inventory of trained human resources, or as "human capital". The idea of human capital is that there is an investment of time and money made in improving the ability of individuals and society at large to provide needed goods and services. As far as the costs of this investment for the society are concerned, current figures from a Statistics Canada report show that it appears to be quite a large sum. For example, for the five year period from 1976 through to 1980, the total amount of money spent on education in Canada came to \$84 billion. For the 1979-1980 year alone, the total was over \$20 billion which represented 7.7% of the Gross National Product (GNP). The majority of these funds (2/3) were spent on elementary-secondary schooling, and the remainder (1/3) on post-secondary schooling at the community college and university levels. and on trade programs.

Some recent statistics from the 1981 Census of Canada give us some idea of the dimensions of Canada's educational supply or stock, how it has changed over the years, and how it differs for certain characteristics such as geography and age groups. In this fashion, it is possible to get a sense of how much educational output Canada, as a nation, is producing compared to the input of large sums of money and time spent by all of the participants in the educational system.

Change in Canada's Educational Stock: 1961-1981

The Genus of Canada has recorded levels of schooling of Canadians at tenyear intervals is net 1911 (And at fiveyear intervals is net 1971). Chart 1 depicts how Canada's educational scot has the scot of higher educational this fortyyear menal. It's quite clear that the tock of higher educational credentials in the form of university degrees, as well as other post-secondary isobeling such as community college, been constantly expanding over this been constantly expanding over this

At the same time, the proportion of the population with some secondary schooling (i.e. Grades 9-13) has stayed roughly the same at about 40%, while the proportion with some elementary schooling only (i.e. less than Grade 9) has dropped dramatically from over 40% in 1981 to a little over 2016 in 1981 Thus in a period of about twenty years. Canada's level of educational stock has risen from a proportion of slightly more than one in two Canadians with secondary schooling or higher, to four out of five Canadians in 1981.

Some of the more recent changes in educational stock, particularly in the area of university degrees and certificates, are also quite dramatic. Between 1971 and 1981, the number of university degree holders increased by over 100%, the numbers increasing from 719,000 to 1,490,000 in that ten-year span. When these figures are broken down into the five-year periods covering 1971-1976 and 1976-1981, the increases in degree holders turn out to be 368,000 and 404,000 respectively Clearly, this indicates that additions to the university degree stock have been increasing. However, this does not mean that degree production will continue to increase, for this depends on the size and age structure of the population

Chart 1

Percentage Distribution by Level of Schooling of the Population 15 Years and Over, Canada, 1961 - 1981





Changes in the Age Distribution of the 0 - 24 Year Population, Canada, 1956 - 1981

Source 1956 1976 Census of Canada bulletins 1981 Census of Canada

Age and Education: Canada Gets a Little Older

The more people there are, the more people there will be who can be expected to strive for some kind of educational attainment. In all industrial nations, the graduates are generally the young, typically those 24 years or younger. While in the past 25 years, the number of Canada's youths has steadily climbed from 7,500,000 in 1956 to a neak of about 10.300.000 in 1976, since then their numbers have begun to decline (see Chart 2). The "aging" of this group means that there are more youths 15-24 years than there are under 10. In the next 5 to 10 years, the smaller youth population could mean less growth in post-secondary education. At the same time, the current "bulge" in the numbers of youths 15-24 years means an increase in the number of students who come from it. For example, in 1961, there were 1.2 million persons in the 20-24-year age group, and of these about 10% had attended university. By 1971, the numbers in that same age group had reached about 1.9 million; slightly less than 20% of these had attended university. By 1981, the group had increased to about 2.3 million and the proportion who attended university was only slightly over 20%. It appears, then, that the proportion of youths in the 20-24-year age group attending university could be levelling off. Again, this would mean that fewer university graduates would be added to the educational stock in the near future. However, this prediction could be offset if a higher proportion of the smaller 20- 24-year age group were admitted to university studies.

Provincial/Territorial Differences in Educational Stock

So far we have looked at educational stock in terms of Canada as a whole. What differences, if any, are there in the educational stock of the provinces and territories of Canada? The following two charts give a brief overview of how educational stock varies across the regions of Canada. The first (Chart 3) shows the median years of schooling attained by persons 15 years and over in each province and territory. (Median years of schooling is simply a statistic which divides the population in guestion into two equal halves. Therefore, if the median is 11.8 years (as it is for Canada), then this means that half of the population has less than 11.8 years of schooling, and the other half more than 11.8 years.) The second (Chart 4) shows the proportion of the same population who have not obtained any degrees, certificates or diplomas. Generally, the two charts tell the same story. For example, the Northwest Territories has the lowest median years of schooling (10.4) and the highest proportion of its population without educational gualifications (62.3%). Conversely, the Yukon has the highest median years of schooling (12.3 - tied with British Columbia and Alberta) as well as the lowest proportion of its population without educational qualifications (44.7%). All of the remaining provinces of Canada fall in between these two ends of the continuum of educational stock.





Percentage of the Population 15 Years and Over With No Degrees, Certificates or Diplomas, Canada, Provinces and Territories, 1981



Chart 3

Skills on Paper: Degrees, Certificates and Diplomas

The successful completion of a course of studies at an educational institution results in an award of either a degree, a certificate or a diploma These credentials basically testify to the fact that the person completing the studies has attained a certain level of skills or knowledge. In many cases, entry into many jobs, occupations and professions require applicants to have minimal educational qualifications from recognized educational institutions How large is the "pool" of qualified persons with degrees, certificates or diplomas? The following information from the Census of Canada gives us some idea of the size of this skill pool.

Earlier, it was mentoned that 1 5 million Canadians had obtained a university degree. Chart 5 indicates the growth in the four categories of university degrees (bachelor's, medical, master's and earned doctorates) as well as of university certificates below the bachelor level, between 1976 and 1981 Clearly, the greatest growth has occurred for bachelor's degree holders who increased by 42% between 1976 and 1981. At the same time, the population 15 years and over increased by 10%. The next highest growth category was master's degrees which increased by 28%, followed by university certificates below bachelor (23%), earned doctorates (16%) and finally medical degrees which increased by only 13%.

In addition to the university degree or certificate component of educational stock, there are three further important categories of educational attainment representing significant numbers of Canadians These three are: college certificates (or diplomas) obtained at community colleges, CEGEPs (in Quebec), technical institutes, etc., which were held by 1.7 million Canadians; trades certificates or diplomas typically earned by apprenticeship or other vocational training, which were held by 2.0 million Canadians: and then secondary school graduation certificates which were held as their highest scholastic attainment by 3.6 million Canadians. If we add up all of these various forms of educational attainment, we arrive at a grand total of 9 1 million persons in Canada in 1981 who

Chart 5



Population 15 Years and Over With University Certificates and Degrees, Canada, 1976 and 1981

1981 Census of Canada

have earned a degree, certificate or diploma This number represents 49% of the population 15 years or over. <u>Therefore, about one-half of the</u> <u>Canadian population had achieved an</u> <u>educational credential as of 1981.</u>

Incomplete Schooling: The Other Side of the Coin

If one-half of the population has educational credentials, then the other half obviously does not

People without educational redentials all into three basic categories. First of all, there are persons whose schoologing years may have been interrupted by events such as economic depression and world wars. Such persons would now be 45 years or over, and the statistics indicate that the largest ing fails into this sage group. The second category of persons with in complete schooling are those who go beyond secondary, but who for a variety of reasons do not complete their schooling in the form of obtaining a degree, certificate or diploma. The third category of persons with incomplete schooling are those who are currently in the school system, attending either on a full-time or a parttime basis. A picture of each of these three groups is degreted in the following charts.

First in Chart 6, we look at the percentage distribution of persons who have less than Grade 95 schooling. In an earlier chart (Dart 1) it was more than in 1981 about 2016 gor coughly a million percent week in 10 the persons in the group have at least Grade 51 to 8 schooling. Also, the vast independent of the group bare at least Grade 51 to 8 schooling. Also, the vast proportion of the group bare at uside Change to the U 5 A1 (24%) is slightly (19%).

Chart 6

Percentage Distribution by Grade Levels, Age Groups and Place of Birth of the Population 15 Years and Over With Less Than Grade 9 Schooling, Canada, 1981



Chart 7 gives us an overview of persons with incomplete schooling who are no longer attending school (as of the census school year which covers the period between September 1980 and June 3, 1981) It appears that the incomplete schooling rate is highest for those attending secondary school (and no higher). In this category, we see that only 31% have attained a secondary school graduation certificate, a further 9% have gained a trades certificate, but 60% have not completed enough years or courses to graduate from secondary school On the other hand, at the trades and college level beyond secondary school, 73% have obtained either a trades or college certificate or diploma. and only 27% have failed to do so. The figures are even better for university

students. For all persons who have ever attended university, well over half (55%) have earned a degree and only 14% have failed to earn a degree or a certificate. It seems then that the higher up the education ladder one goes, the better the chance of earning a degree, certificate or dioloma

Chart 7

Percentage Distribution (Within Highest Level of Schooling) by Presence of Certificate or Degree of the Population 15 Years and Over Not Attending School, Canada, 1981



Source 1981 Census of Canada

Recent Patterns of School Attendance

The last category of persons with incomplete schooling are those still going to school. In a way, these persons are not really "finished" educational stock. Rather, these persons represent what one could call a "flow" of human resources that are in a process of educational upgrading. How many persons are undergoing this process of upgrading in any given school year? To answer this question, we should first divide the schoolgoing population into three specific age groups. First, there is the 15-19-year age group which has the most school attenders. of the three groups. Second, there is the 20-24-year age group which supplies the majority of post-secondary school attenders. And finally there are adult school attenders 25 vears and over who account for the majority of part-time school attenders. In looking more closely at the census figures for school attendance, it is also useful to analyse the data by sex, since there are some fairly large differences in patterns between males and females.

Chart 8 on the following page shows the proportion of men and women in the 15-19- and 20-24-year age groups who were not attending school, and who were attending school full-time or part-time. These figures tell us, first of all, that the proportion not attending school for both sexes in the 15-19-year age group and for men in the 20-24-year age group increased between 1971 and 1981 (see Chart 8). However, for women in the 20-24-year age group it is noted that both full-time and part-time school attendance rose between 1971 and 1981. The increase in part-time attendance rates is particularly significant, since the rate for women is now almost equal to the rate for men which remained constant at 9% between 1971 and 1981

One of the factors accounting for the decline in attendance in the 15-19-year age group is the shifting distribution of the age curve (which was described earlier in Chart 2). If we look a little more closely at how the age structure changed between 1971 and 1981 (see Chart 9), we would note that although the overall numbers of 15-19-year olds increased. the proportion of younger teenagers decreased and the proportion of older teenagers increased. Another way of putting it is that in 1971 the majority of teenagers in the 15-19-year age group were 15 or 16 years old, but in 1981 the majority were 17 or 18 years old. This aging of the teenage subpopulation has thus meant an increase in teenagers who are beyond the compulsory schoolgoing age which is either 15 or 16, depending on the province and territory. This fact thus accounts in part for the lower overall proportion of 15-19-year olds attending school in 1981 compared to 1971.

In the older 20-24-year age group it appears that proportionately fewer men were attending school full-time (23% in 1971 and 21% in 1981), but as mentioned earlier, more 20-24-year old women were attending school full-time (13% in 1971 compared to 16% in 1981) as well as part-time (6% in 1971 and 9% in 1981).

On the whole, then, these census school attendance flow figures tell us that about two out of every three 15-19-year old teenagers were in the process of full-time educational upgrading in 1981, and about one in five 20-24-year olds was doing likewise. In terms of numbers this translates into a total of 2 million glutime students in the 15-24year age group and a further quarter of a million part-time students.

Percentage Distribution by School Attendance of the Population 15 Years and Over, Selected Age Groups and Sex, Canada, 1971 and 1981



Source 1971 Census of Canada, unpublished data 1981 Census of Canada

Chart 8

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Age Composition of the 15 - 19 Year Age Group by Single Years of Age, Canada, 1971 and 1981

> In the adult age group of persons 25 years or over, formal school attendance is a relatively rare occurrence In 1971, 145,000 persons or only 1.3% of the adult population were attending school full-time By 1981 the numbers had increased to 220,000 persons. representing 1 6% of the adult population. More dramatic increases were seen for part- time school attendance which almost doubled from 420,000 persons in 1971 to 805,000 in 1981. When these numbers are shown separately for males and females as they are in Chart 10, it can be seen that the greatest increases occurred in the area of female part- time school attendance which exhibited a remarkable 150% increase between 1971 and 1981 Obviously, more and more women who may have discontinued their schooling earlier are now returning to class-rooms in record numbers. With this higher female school enrolment rate, it can be expected that more and more gualified women with

appropriate job credentials will be (and are in the process of) entering the labour market. For further information on female work activity, see <u>Women in the Work</u> World (Catalogue No. 99-940) in this series.



Number of Men and Women 25 Years and Over Attending School Full-time and Part-time, Canada, 1971 and 1981

Schooling and Other Facets of Life

We all know that schooling is connected with jobs. Perhaps less known is the fact that, at least in the past, the probabilities of obtaining higher education differed depending on one's social or cultural background. In the final section of this report, we look at census schooling data in relation to selected economic and social characteristics.

First, in terms of economics, Chart 11 whows for men and women the patterns of unemployment for vanous categones of ducational attainment. The population referred to in this chart is the population Syears and over who are in the labour force. The unemployment rate shows the proportion of the labour force who proportion of the labour force were without work, and whoh had looked for and were available for work, plus those on Jav-off or waiting to start a new job The figures in the chart clearly reveal that those with a lower level of education have higher rates of unemployment and that those with a higher level of education generally have lower rates of unemployment For all educational categories, women had higher upemployment rates than men at equivalent educational levels. It is also interesting to note that this relationship between schooling and unemployment is not an evenly sloping curve. That is, some lower categories of educational attainment actually have lower unemployment rates than apparently higher levels of schooling. For example, men who had obtained a secondary school graduation certificate but who had not proceeded to further schooling had a lower unemployment rate (4 3%) than men who had proceeded to trades or college schooling but who had not obtained a certificate or diploma (4.9%). Similarly, men with college certificates had an unemployment rate of 2 7% compared to the 4 0% rate for men who had completed some university training but who had not obtained a certificate or a degree

Unemployment Rates for the Population 25 Years and Over by Highest Level of Schooling and Sex. Canada. 1981



Source 1981 Census of Canada

Percentage of the Population Aged 25 - 44 With Degrees, Certificates or Diplomas by Selected Social Characteristics, Canada, 1981

Canada average

Place of birth

Canada U S A United Kingdom Other European Africa Asia

Period of immigration

Before 1960 1960 - 1969 1970 - 1979 1980 - 1981

Ethnic origin

British French German Italian Ukrainian Jewish Dutch Scandinavian Asian groups Native peoplet

Religion

Roman Catholic Ukrainian Catholic Protestant main groups[#] Eastern Orthodox Jewish Islam Hindu Sikh Buddhist No relienous preference

Official language

English only French only Both English and French Neither English nor French



*Includes United Church, Anglican, Presbyterian, Lutheran and Baptist Source 1981 Census of Canada A simple explanation for this occurrence is that persons who go on to further their schooling forgo the opportunity of competing for current jobs and enable persons who do not continue to enter the labour market earlier and with less competition. Thus the student who continues his or her education in effect invests time into the act of upgrading. But when that process is not completed. the investment is either partly or totally lost since the person can only enter the labour market basically at the same level he had earlier reached. Of course this does not mean that all of the educational experience is lost, for there are obviously many non-economic benefits of education that cannot be measured in job or money terms. In fact, some educators advocate the idea of temporarily interrupting the normal educational career path so that youths and young adults can put both the work world and the school world in an overall picture. There is nothing like working. or looking for work, to make a person realize why he or she may want to go to college or university.

We turn now to Chart 12 which shows some of the social and cultural factors connected to educational attainment. The information in this chart refers to persons aged 25-44 who have obtained a degree, certificate or diploma. The Canada average for this group is 63.6% with degrees, certificates or diplomas. This number can be used as a measuring stick to see how persons in various social and cultural groups fare.

First off, in terms of place of birth, we see that persons born in Canada are slightly below the national average. For persons born in the United States and Africa, the proportion with educational credentials is a remarkably high 84%. Persons born in European countries other than the United Kingdom have a relatively low rate of 54% with credentials. In terms of the immigrant population, we see that for persons who immigrated either prior to 1960 or after 1969, the percentages with degrees or certificates were slightly higher than the national average. Also, in terms of ethnic origin we see that the British French German Ukrainian Dutch and Scandinavian groups were all within a couple of percentage points of the national average. The Jewish and Asian groups were both well above the national average, while the Italian and the native peoples groups were below. Religion shows a similar pattern. Persons of Jewish, Islam and Hindu religions were above the Canada average in educational attainment and persons of Eastern Orthodox and Sikh religions were below. Persons with no religious preference generally have a higher educational profile than those with a stated religion.

Finally, the official language categoryshows some interesting variations. Persons who spoke English only were slightly below the average, while those who spoke both English and French were well above the national average.



<u>SUMMARY</u>

This report has glanced at recent 1981 Census of Canada schooling data in terms of Canada's total educational stock, the number of Canadians undergoing educational upgrading in the 1980-81 school year, and the relation of schooling to various economic and social factors. In sum, we have seen that about half of the Canadian population has at least some form of an educational credential (be it a trades certificate or a Ph.D), but that about one in five persons has no higher than Grade 8 schooling. In terms of school attendance, we saw that a total of 3.2 million Canadians 15 years and over were attending school either on a part-time or a full-time basis in 1980-81. Finally, we noted the connection that schooling has to important economic concerns such as employment and to significant social factors such as ethnicity and religion. A brief summary of these data are shown in the two concluding charts, and in Tables 1 and 2. Readers interested in following up some of the information in this report should consult Products and Services of the 1981 Census of Canada and, in addition, other information on education distributed by Statistics Canada.

Percentage Distribution by Degrees, Certificates or Diplomas, of the Population 15 Years and Over, Canada, 1981



Chart 14

Percentage Distribution by Level of Schooling of the Population 15 Years and Over, Canada, 1981



Table 1

School Attendance of the Population 15 Years and Over by Age Groups, Canada, 1981

			School attendance			
Age groups		Total	Not attending	Attending full-time	Attending part-time	
15-19 years	No.	2.303.580	723,235	1,517,720	62,620	
	%	100.0	31.4	65.9	2.7	
20-24 years	No.	2,334,420	1,692,860	433,425	208,130	
	%	100.0	72.5	18.6	8.9	
25 years and	No.	13,971,825	12,945,755	219,670	805,860	
over	%	100.0	92.7	1.6	5.8	
Total 15 years	No.	18,609,285	15,361,855	2,170,820	1,076,615	
and over*	%	100.0	82.5	11.7	5.8	

* Excluding inmates of institutions.

Source: 1981 Census of Canada.

Table 2

Educational Attainment of the Population 15 Years and Over by Age Groups, Canada, 1981

			Highest degree, certificate or diploma			
Age groups		Total	None	Secondary certificate	Trades or other certificate	University degree
15-24 years	No.	4,638,000	2,428,645	1,346,795	710,320	152,245
	%	100.0	52.4	29.0	15.3	3.3
25-44 years	No.	7,156,760	2,603,645	1,504,465	2,070,060	978,590
	%	100.0	36.4	21.0	28.9	13.7
45-64 years	No.	4,629,910	2,827,895	574,920	943,255	283,830
	%	100.0	61.1	12.4	20.4	6.1
65 ye a rs and	No.	2,184,615	1,656,815	191,270	261,010	75,520
over	%	100.0	75.8	8.8	11.9	3.5
Total 15 years	No	18,609,285	9,517,005	3,617,450	3,984,650	1,490,180
and over*	%	100.0	51.1	19.4	21.4	8.0

* Excluding inmates of institutions.

Source: 1981 Census of Canada.

Canada has taken a census of population every ten years from 1851 and every five years from 1956. The last census was taken on June 3, 1981. The census data constitute the most important single source of information on the population of Canada by many geographic areas from the national and provincial levels down to smaller groups such as cities, towns and municipalities. These data include: information on the number of people who live in Canada: their characteristics such as age, sex, marital status, language, educational level and occupation; number and types of families; and types of dwellings Census information is used for a variety of purposes by private individuals, governments at all levels, educational institutions, business people and other organizations.

As part of a program to supplement 1981 Census statistical reports, a special series of popular studies has been undertaken on selected topics of public interest. Each study is a description of major trends and patterns. The data used are from the 1981 Census and other relevant sources. This series is designed for use at the high school and community college levels. However, it could also be of interest to the general public. SCHOOLING IN CANADA is one of the reports in this series. It brings together under one cover highlights of information about the education and school attendance of the population. Other studies in the series are being published at about the same time or within the next few months.

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