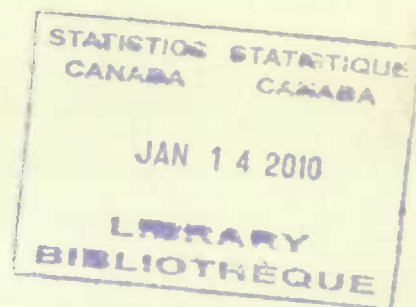


73-D-51

c.3



# STATISTICS OF UNEMPLOYMENT IN CANADA

*Memorandum prepared by*

THE DOMINION BUREAU OF STATISTICS

AND

THE ECONOMICS AND RESEARCH BRANCH

DEPARTMENT OF LABOUR

OTTAWA, 1958



# STATISTICS OF UNEMPLOYMENT IN CANADA

*Memorandum prepared by*

THE DOMINION BUREAU OF STATISTICS  
AND  
THE ECONOMICS AND RESEARCH BRANCH  
DEPARTMENT OF LABOUR

1958

*Published by Authority of*

The Honourable Gordon Churchill, Minister of Trade and Commerce



# STATISTICS OF UNEMPLOYMENT IN CANADA

## SECTION 1

### Introduction

This report is intended to describe the main statistics relating to unemployment issued by the government of Canada. The changes in unemployment in recent years have naturally focussed attention on these statistics and the difference between the two series most widely used has given rise to some confusion. It is hoped that the explanations given here will assist in the use and understanding of these important economic figures.

The two main sets of figures relating to unemployment now in use in Canada are quite different in nature and come from quite different sources. On the one hand, a sample survey is taken each month by the Dominion Bureau of Statistics in a large number of areas across the country. The people interviewed in this survey are asked questions to find out, among other things, whether they were working for pay or profit the previous week, or looking for work, or instead were keeping house or engaged in another "non-labour force" activity.

On the other hand, there are the operating statistics of the National Employment Service. In each employment office, registrations on file are counted at specified times (excluding certain categories of persons). Aggregates of these figures are available for various areas and for Canada as a whole.

This paper contains a brief explanation of the nature of both these sets of figures. After a short sketch of the history of unemployment statistics in Canada in Section 2, an outline is given in Section 3 of the nature of the statistics of registrations at N.E.S. offices and how they are obtained. Then in Section 4, there is an explanation of the Labour Force Survey figures and the way they are obtained. This is followed by Section 5 which discusses the reasons for the differences between the two sets of figures. Finally, Section 6 of the report offers some suggestions on grouping the Labour Force Survey figures in such a way as to provide measures of employment and unemployment.

## SECTION 2

### Historical Note on Statistics of Unemployment

Statistics on various aspects of unemployment have been available in Canada for many years, but only recently have they been at all complete. The earliest continuous series dealt with unemployment among trade union members. These figures, which date back to 1915, were based on individual reports from local unions covering their membership and number of members unemployed. The reports were made to the Federal Department of Labour and published in the Labour Gazette, usually every month, without interruption until 1950, when they were discontinued because other more comprehensive data had become available.

The statistics on unemployment among trade union members were always of limited value as an indicator of unemployment trends because union membership fluctuated, the returns were not always complete, and the experience of unions was not properly representative of conditions prevailing generally.

While some statistics on the number of people seeking employment were assembled by public employment offices in some municipalities and provinces before the end of the first world war, it was not until after the passage of the Employment Service Coordination Act in 1918 under which the Employment Service of Canada was created, that such statistics became available on a national basis. This material also was quite limited in value because prior to World War II there were relatively few offices and most of them limited their activities to certain types of workers. Consequently, a relatively small proportion of the workers who were looking for jobs registered at the offices of the Employment Service of Canada.

The first comprehensive survey of unemployment in Canada was made in the 1931 population census. In that census, persons classed as employees (those who had jobs as employees or who said that they usually had such jobs) were questioned regarding their activity on June 1st and the number of weeks not worked in the preceding year. Those not at work on the census date and those who had lost time during the year were asked, in addition, the reason for their absence from work or loss of time (the reasons being tabulated as no job, temporary layoff, illness, accident, strike or lockout, or other causes). Similar questions were asked also in connection with the 1941 census, the main difference being the recording of "weeks worked" during the preceding year rather than "weeks lost".

During the 'thirties, when a programme of unemployment relief payments was developed on a joint Federal and Provincial basis, data became available on the number of people in receipt of such payments. These were subject to limitations because the conditions governing the payment of relief changed frequently, and because the statistics often included all members of the worker's family, not just those normally employed. Furthermore, information was not assembled on the number of persons unemployed who were not in receipt of these relief payments.

In the absence of comprehensive inter-censal statistics on unemployment in the period preceding the Second World War analysis of the current unemployment situation rested largely on statistics of employment. While these, too, were incomplete, they covered the industries most sensitive to economic fluctuations.

In 1941 the introduction of Unemployment Insurance brought about an expanded nationwide system of federal employment and claims offices (later known as National Employment Offices). These employment service facilities became part of National Selective Service in 1942 when almost all workers seeking employment were required to register with the National Selective Service Offices. During World War II, therefore, when it was compulsory for unemployed persons to register and all hiring was done

through National Selective Service Offices, statistical coverage of persons wanting jobs was comprehensive. When the War ended, however, and National Selective Service regulations were rescinded, it again became possible for workers to seek and accept jobs without going to a government employment office. Accordingly, the coverage of statistics based on these employment service operations became less comprehensive. Operational statistics of persons registering for employment through these offices provide indicators of unemployment which are discussed in Section 3 of this paper.

During the War the need for reliable information on the general distribution of Canadian manpower became more and more evident. Attempts were made to obtain this information but no approach seemed satisfactory until late 1945 when steps were taken to inaugurate sample surveys of the population on a regular basis. These surveys were conducted quarterly until November 1952 when they were converted to a monthly basis. The monthly Labour Force Survey which is described in some detail in Section 4 provides statistics on the labour force status of the whole population of working age based upon the activities of individuals in the survey week. Through the application of scientific sampling it is possible to conduct the survey each month and make its results available quickly.

At present, therefore, there are two main sets of statistics which refer to unemployment. These are, the Labour Force Survey results and the number of registrations on file with the National Employment Service. One of the requirements for unemployment insurance benefit is registration at an employment office, and therefore the data on registrations with the National Employment Service include, with only minor exceptions, people claiming unemployment insurance benefit as well as those who register voluntarily but who are not claiming benefit.

### SECTION 3

#### Registrations at National Employment Service Offices

##### Introduction

The National Employment Service of the Unemployment Insurance Commission is the source of a variety of statistics which are useful in analysing the employment and unemployment situation. Employment service statistics are published in considerable detail in the Labour Gazette. Statistics of registrations for employment also appear monthly in a joint press release of the Department of Labour and the Dominion Bureau of Statistics, providing totals for Canada, its principal regions and about forty offices across the country.

Registrations for employment at National Employment Service offices are grouped under 100 occupational categories and therefore provide important information on the occupations of registrants. They are useful in appraising the extent and nature of unemployment conditions in local areas. This type of information is not available from other sources and it would be expensive to extend other surveys in order to provide it.

An illustration of the way in which this material is used is provided by the classification of labour markets published regularly in the Labour Gazette. For the analysis of labour market areas, local registrations are grouped and expressed as a percentage of the estimated number of paid workers in the area. The resulting ratios are then grouped into categories which, on the basis of experience in recent years, are taken to indicate a shortage, balance, or surplus of labour in relation to available job opportunities. This labour market classification has proved useful in understanding current variations in local employment conditions within each region and between regions. It has also helped to put into clearer perspective important monthly seasonal and annual employment changes occurring in these local areas.

The insurance and employment service activities of the Unemployment Insurance Commission are conducted in the same local offices and are inter-related. Nearly all claimants for unemployment insurance are required to file applications for employment. On the average, about 85 per cent of registrations at N.E.S. offices are from persons claiming unemployment insurance benefit so that changes in the law, regulations and practices relating to unemployment insurance have an effect on the number and characteristics of the applicants. Other applications come from persons who register solely because they seek employment and who for one reason or another do not claim unemployment insurance benefit. Statistics on registrations are thus a product of the operations of the Unemployment Insurance Commission. As such they are affected by extensions of coverage, changes in legal provisions for payment of benefit and changes in the administrative arrangements for processing benefit claims and carrying out employment service operations.

It is seldom possible to estimate with satisfactory accuracy the quantitative effects of administrative changes on the levels of N.E.S. registrations. In addition, there have been legislative changes which have affected the statistics. The Appendix (page 9) to this section contains a list of such changes.

#### The Record of Applications

In the majority of cases, individuals registering for jobs appear personally at an office of the National Employment Service and provide information on their training and work history. Thereafter, those living outside the immediate area in which the office is located, report to the office by mail and are known as "postal applicants" or "postal claimants". For Canada as a whole, these comprise from one-third of the total in winter months to one-fifth in summer; and the proportion varies in different areas. After the first interview the information obtained from those who report regularly to the office in person is likely to be more accurate since each interview provides an opportunity for questioning by an UIC official who has had experience in placement work.

Statistics of applications are obtained by counting the registrations in the "live" file in the employment branch of each local office of the Unemployment Insurance Commission. This file contains applications of persons who have indicated that they are available for work and who are not known to have found work. As described below, a number will have found work on their own initiative since registering and in some cases, because the applicants have failed to notify the office, their cards will remain in the "live" file for some time.

Registrations are required to be counted at the close of business on a particular day. In the statistical procedures as set out, local offices are instructed to exclude from the count certain classes of applications from persons who cannot be regarded as available for employment at the time the count is taken. The most important exclusions are:

- (1) Those known to be employed (these are mainly people seeking a better job).
- (2) Persons available only for part-time employment.
- (3) Duplicate registrations of individuals registered at more than one office (e.g., the offices in Ottawa and Hull).
- (4) Applicants registered in advance of the time they want a job, such as students registering for work before the end of the university term.
- (5) Persons who are known to have fallen ill while on claim for insurance benefit.

### Claimants and Non-Claimants

Applications for work at employment offices are made by those who are claimants for unemployment insurance benefit and by non-claimants. Seasonally, the proportion of claimants varies from about 95 per cent in mid-winter to about 75 per cent in early summer and averages about 85 per cent. There is considerable difference between localities, depending upon the extent to which workers are covered by unemployment insurance, and on other circumstances.

#### Claimants

Claimants are, broadly speaking, persons who have made application for employment and have, at the same time, filed a claim for unemployment insurance benefit.\* Claims are received from those wishing to make a claim regardless of their changes of qualifying for benefit and therefore the count of claimants on the register at any time includes a certain proportion who will fail to meet the qualifying conditions. These conditions are that the claimant has made the requisite number of contributions, is available and able to work and is unable to find suitable employment.

#### Characteristics of Applicants

The process outlined above, and certain features of employment office procedure described below, result in the applications statistics including persons in different types of situations. Some important groups are:

- (a) People who would be considered unemployed by almost any definition. This group is a majority of the total.
- (b) Those who report themselves as available for employment, as required by the Unemployment Insurance Act, but who are not actively seeking work, such as those recently or partly retired from the labour market.
- (c) Persons with jobs but not working, such as those on temporary lay-off or kept from working due to bad weather. This is usually a small group.
- (d) Individuals who are fully employed but whose records remain in the "live" file, as a result of administrative lags described below. Size of the group varies seasonally and with changes in administrative practice.
- (e) Persons employed and receiving a weekly remuneration within the "allowable earnings" as set by the Unemployment Insurance Act. This is a small group.
- (f) Persons employed on casual work who may be expected to remain in beneficiary status.

---

\* An exception exists in the case of persons claiming benefit because they are on short time. Such claimants are not usually registered for employment.

- (g) Seasonal workers normally without a job during the slack period but normally working or seeking work at other periods.

#### Administrative lags

When the Employment Service places a claimant in a job, or if a claimant who finds a job notifies the office, the corresponding application for employment is removed from the live file and is not included in the regular count. In some instances, however, where the claimant finds a job on his own initiative, the application may remain in the live file of registrations and be counted for some time. This occurs in cases where he does not report to claim the balance of any benefit due him since his last reporting date.

Claimants for benefit who live sufficiently close to a local office are required to report once a week. Those living at some distance, known as postal claimants, are permitted to report by mail at two-week intervals. In some areas postal claimants predominate, particularly in the winter time, and this must be taken into account in the use of local office figures for the purpose of analysis.

When a claimant fails to report at a local office his name is not removed immediately from the live file of registrations, because failure to appear is often associated with job-seeking activities. However, after a prescribed period his card is removed from the live file. In many instances failure to report arises from the fact that the applicant has found a job but has failed to notify the local office, so that a lag develops between the date at which he found a job and the date at which he is last counted as being an applicant. These lags are reflected in the statistics, and have the effect of exaggerating the number of persons available for work. In addition, the reporting arrangements, and the lags to which they give rise, are changed from time to time and this affects statistical comparability.

The majority of claimants who find jobs on their own have a balance of insurance benefit still owing them. This gives them an incentive to contact the local office, and when they do their application is removed from the live file. This reduces the number of prolonged lags of the type described above.

#### Changes in Incentive to Register

Comparability between different dates in statistics of registrations is affected not only by changes in the regulations regarding frequency of reporting, but also by various factors affecting the incentive to register at local offices of the Unemployment Insurance Commission.

It is clear that as coverage is extended to additional industries or as the wage ceiling is raised the number of persons eligible to claim is increased. In April 1950 coverage was extended to lumbering and logging in all provinces (previously insured only in British Columbia) and in April 1957 fishermen were included. There has been no change in the wage ceiling since it was raised from \$3120 to \$4800 in July 1950.

Changes in the requirements for obtaining benefit have been numerous in recent years and they have had an important effect on the statistics.

A special factor which encourages more registrations each winter is the payment of "seasonal" benefit, first introduced in February 1950\*. This special benefit is paid to claimants who have at least 15 weeks of contributions but less than 30 or who have exhausted a benefit period since the previous March 31. Aside from extension of the period of seasonal benefit payment there were no changes in these provisions until early in 1955 when the period during which certain claimants might receive benefit was extended, thus affecting to some extent comparability with the previous year. It is not possible to conclude that all those claiming seasonal benefit represent a net addition to the total registrations figure, since some of them would, in any case, have been registered with N.E.S. as non-claimants. On the other hand, part of the rise in application figures in the early winter, and part of the decline following the seasonal benefit period, is attributable to claimants for seasonal benefit who would not otherwise have registered for work at National Employment Service Offices.

#### Registration by Non-Claimants

The active files of the National Employment Service contain registrations from some people who are not claiming unemployment insurance benefit. Registrations from persons not claiming benefit remain in the live files until each person has been placed in employment or ceased to report. Failure to notify the office on the part of those who have found work or who have ceased to want work for other reasons has the effect of including in the count a certain number who are either employed or who have withdrawn from the labour force.

There is a good deal of variation between localities in the extent to which individuals make use of the National Employment Service. This is most noticeable in the case of non-claimants, who have not the incentive to appear at local offices to obtain unemployment insurance benefit. The extent to which non-claimants register depends upon such factors as distance from an N.E.S. office, the practices of local employers in hiring, and the prevailing belief regarding the possibility of getting work through the local office.

\* From 1951 to 1957 seasonal benefit was payable between January 2 and April 15 each year. In November 1957 this period was extended to cover December 1 to May 15 each year. In May 1958 payment of seasonal benefit was extended from May 15 to June 28 for this year only.

APPENDIX

Legislative Changes

1. July 1952. Waiting period reduced from 8 to 5 days.
2. October 1955. Revised Act effective
  - a) Contribution and benefit period changed from daily to weekly basis enabling claimant to acquire contributions by working part of the week while also drawing benefit in respect of that week.
  - b) Minimum duration of benefit increased from 36 days to 15 weeks (subsequently 12 weeks).
  - c) Maximum duration of regular benefit reduced from 51 weeks to 36 weeks.
  - d) Seasonal regulations governing payment of benefit to persons in transportation by water suspended (rescinded 1956).
3. January 1956. "Reinterpretation" provision regarding contributions made prior to October 1955 changed to count as a contribution week any week in which earnings were \$9 or more (previously week taken as 6 days of contributions).
4. September 1956. Thirty weeks contribution requirement on subsequent claim reduced to 24 weeks (Section 45(2)).
5. November 1957. Married women regulations rescinded.
6. December 1957. Seasonal benefit period extended by 8 weeks and minimum duration for Class A seasonal claimants increased from 10 to 13 weeks.
7. May 1958. Seasonal benefit period extended from May 15 to June 28 for one year only.

## SECTION 4

### Labour Force Statistics

Statistics relating to employment and unemployment are derived from the Labour Force Survey carried out each month by the Dominion Bureau of Statistics. The Survey classifies persons of working age in the entire population according to their activity in a particular week. The survey week in each month is that week which contains the second last Saturday. However, in December, and sometimes in November and January, the survey week is altered to offset the influence of the Christmas holiday period. Summary results are published within 30 days in a joint press release of the Department of Labour and the Dominion Bureau of Statistics. Shortly afterwards, more detailed statistics appear in the DBS publication, The Labour Force.

#### The Labour Force

As indicated in Section 1, individuals experience varying degrees of employment and unemployment extending from full time work to part time work; from having a job but not being at work to not having a job and seeking work; and so on. This kind of information is secured in Canada by enquiries such as the Labour Force Survey, covering the activities of individuals. Other methods provide partial information about the population. For example, the Dominion Bureau of Statistics obtains figures of employment each month from employers. This information is less costly because one employer provides information by mail about his whole payroll but the range of information which can be obtained from employers is much narrower; they cannot report statistics on the number of persons seeking jobs or on the number not in the labour force. Similarly, the count of registrations at N.E.S. offices, as described in the preceding section, although providing a considerable range of information about those who register, can yield only partial information about the adult population.

To produce comprehensive labour force statistics monthly at a cost which is not prohibitive and with reasonable promptness, it is necessary to conduct the Labour Force Survey on a sampling basis. The sampling and interview procedures used to secure the statistics are explained below in some detail. The two sections immediately following contain a description of the statistics produced by the labour force survey and the concepts and definitions underlying them.

#### Description of Labour Force Statistics

The labour force statistics are best illustrated by the following table which is derived from the monthly DBS publication The Labour Force. The statistics are for the survey week ending June 21, 1958.

Table 1. Summary of the labour force characteristics of the population 14 years of age and over, week ended June 21, 1958, Canada (1)

---

(estimates in thousands)	
	<u>June 21, 1958</u>
Population 14 years of age and over (1)	11,254
Labour force	6,114
With jobs	5,794
Agriculture	740
Non-agriculture	5,054
Without jobs and seeking work (2)	320
Not in the labour force	5,140

---

With jobs	5,794
At work 35 hours or more	5,125
At work less than 35 hours	501
Usually work 35 hours or more	154
(a) laid off for part of the week	10
(b) on short time	49
(c) lost job during the week	*
(d) found job during the week	14
(e) bad weather	*
(f) illness	26
(g) industrial dispute	*
(h) vacation	14
(i) other	28
Usually work less than 35 hours	347
Not at work (3)	168
Usually work 35 hours or more	161
(a) laid off for the full week	15
(b) bad weather	*
(c) illness	53
(d) industrial dispute	*
(e) vacation	72
(f) other	16
Usually work less than 35 hours	*

---

(1) Excludes inmates of institutions, members of the armed services and Indians living on reserves.

(2) Included here are only those who did not work during the entire survey week and were looking for work.

(3) Included here are those with jobs who did no work in the survey week and did not look for work.

\* Less than 10,000.

In addition to the foregoing, the main groupings are further subdivided; all categories being shown separately for males and females. The main groups are distributed by age; persons seeking work are classified according to the number of months they have been looking for work; and a limited number of regional, industrial and occupational distributions are published. It would require a much larger sample than is now used to produce reliable labour force statistics for small areas and by detailed occupational and industrial distributions.\*

Thus the Labour Force Survey divides the adult population into a wide variety of categories representing degrees of employment and unemployment, but no single category is described as "the unemployed". It is possible, however, to rearrange and combine the categories of Table I under headings of "employed" and "unemployed", as illustrated in Section 6 of this paper.

Basis of classification and definitions of major labour  
force categories

The basic idea underlying the classification used in the Labour Force Survey is that of "current activity". In classifying an individual on the basis of what he did, the time period selected is a calendar week and the classification of the person depends on his reported activity for the survey week. If the period were longer, say a month, it would be more difficult to classify individuals meaningfully to any single category because the longer the period the greater the chances of an individual being engaged in several activities during the period. A shorter period, such as a day, is open to other objections; the figures being more sensitive to erratic and accidental events, such as the impact of a holiday. Furthermore, in classifying workers information on hours worked per week is more useful than hours worked per day.\*\*

A person may, of course, be engaged in more than one activity even during a period as short as a week. It is, therefore, necessary to assign priorities to the various activities in which the same individual was engaged so that he is put in only one group and not counted twice.

---

\* Figures for the whole of Canada and the six major economic regions, separately for agriculture and non-agricultural industry are shown for the major occupational status groups (paid workers, own account workers, employers and unpaid family workers) in the Dominion Bureau of Statistics bulletin, The Labour Force.

In addition to the published data, estimates for Canada of persons with jobs by eleven main industry groups and fourteen main occupation groups are available.

\*\* With the assignment of priority to working status as mentioned in the next two paragraphs, a reference period of a month would show more workers and probably fewer work seekers than does a period of one week. On the other hand, a reference period of a day would likely show more seekers than would a week. The effects of the priority system in changing employment situations are quite complex.

In the labour force classification system, the order of priority is "working", "seeking work", "with a job but not at work", and, finally, the non-labour-force categories. Thus, a person who did any work during the survey week is classified under the main heading of "at work" even though he may also have looked for work.\* A person who had a job but was not at work during the survey week would be classified as such, unless he also was seeking work, in which case he would be classified as "seeking work". A married woman who is keeping house and also seeking work, would be classified as "seeking work" rather than as "not in the labour force".

While, in general, activity during the week is the basis of classification, the concept is broadened somewhat on practical grounds to include in the labour force certain persons who were neither working nor actively seeking work. Thus, in addition to those without jobs who were seeking work, certain persons who were not actively looking for work during the survey week are included in the category of "persons without jobs and seeking work". These are individuals who report that they would have been looking for work during the survey week but failed to do so for the following reasons: temporary personal illness; the belief that no work was available in the community or none that was suitable to their particular skills; the belief that they would be recalled to their old jobs from which they had been laid off for an indefinite period. Some departure from the activity test is made also to include in the labour force those with a job who were absent from their work during the survey week for reasons such as illness, vacation, or bad weather. It is believed that departures from a strict activity approach in these cases result in more useful statistics.

The definitions of the major labour force categories, based on the concepts and priority system just described, are as follows:

The civilian non-institutional population, fourteen years of age and over (which excludes the Armed Forces) is divided into two broad groups, the "civilian labour force" and "persons not in the labour force".

The civilian labour force is defined as all civilians who either had jobs at any time during the survey week, or if they did not have jobs, were seeking work at some time during this period.

Persons not in the labour force are the remainder of the civilian population fourteen years of age and over. They are outside the labour force in the sense that they did not work for pay or profit or as unpaid workers in a family business enterprise and did not look for work. Persons not in the labour force thus are such groups as those going to school, keeping house, retired, voluntarily idle, and too old to work or permanently unable to work for some other reason. Housewives, students and others who worked part-time during the survey week or who looked for work are included in the labour force.

---

\* Individuals who worked less than 35 hours are shown separately in the main table and classified by reason for working less than 35 hours.

The civilian labour force is sub-divided into (a) persons with jobs and at work; (b) persons with jobs but not at work; and (c) persons without jobs and seeking work.

Persons with jobs and at work include all individuals who did any work at all for pay or profit during the survey week. In addition to paid workers, this category includes individuals who operated their own businesses, including farms, or who practiced a profession. An individual who did unpaid work which contributed to the running of a farm or business operated by a relative is also included.

Persons with jobs but not at work include individuals who had jobs but did not work at all during the survey week because of illness, bad weather, vacation or industrial dispute and were not looking for work. In addition, individuals who were on temporary layoff with definite instructions to return to work on a specific date, within 30 days from the time of being laid off, are included unless they were seeking other jobs.

Persons without jobs and seeking work include individuals who did not work and who were looking for a job. Persons with jobs who did not work during the survey week but were seeking other work are also included in this category. In addition to those who actively looked for work this category includes persons who reported that they would have looked for work except for certain specified reasons (see above).

### Sampling and the Labour Force Survey

The Labour Force statistics are based on information secured from a sample rather than a complete count of the population. It would be very costly to take a census each month, and it would take longer to produce the statistics. The technique of probability sampling can be used to obtain from a relatively small number of respondents practically as accurate results as a census would yield under the same circumstances.

The use of probability sampling has grown rapidly within the past two decades and is based upon established principles of mathematics. Application of these principles in such varied fields as the control of quality of manufactured products and agricultural experimentation has been exceedingly fruitful.

### Some Characteristics of Sampling

A carefully-designed sample can be described as a cross-section of the population. If the sample were an exact small-scale replica of the population it would contain the exact proportions of persons seeking work, not in the labour force, working, and so on, as the population. It is, of course, the object of the Labour Force Survey to obtain these proportions but there is no means of securing a sample which is constituted exactly as the population from which it is drawn. However, probability sampling represents a method of obtaining the information with as much sampling accuracy as is considered essential and at the minimum cost.

A probability sample is one in which everyone in the population has a chance of inclusion and this chance of inclusion is known (for example, each person in the population may have a chance of one in ten or one in a hundred to be drawn into the sample). The most important characteristic of such a sample is that, in addition to providing estimates, it enables one to calculate, from the sample results themselves, the accuracy of the estimates obtained compared with those which would have been obtained if a census were used. Accordingly, it is possible to plan the survey so that the precision of the sample estimates is as high as is required by the purposes for which they are used.

In general, the larger the sample the greater is the accuracy of the estimate, but the greater also the expense of the survey. Apart from size, the accuracy of the sample can also be increased by appropriate design, such as, "stratification", that is, by dividing the population into separate groups, the members of each group being as alike as possible and different from the other groups in qualities that are likely to affect their labour force characteristics, and then selecting a sample from each of these groups separately.

#### Description of the Canadian Labour Force Sample

To achieve a working compromise between the twin goals of accuracy and economy it has been necessary to make use of a complex sample design for the Canadian Labour Force Survey. Two main features of the Labour Force sample are: (1) It is a probability sample which aims, so far as possible, to represent all types of community and social and economic groups in the country so that their labour force characteristics may be measured; (2) The sampling error (see below) of the published estimates is tolerable considering the purposes for which the figures are to be used.

In order to draw a sample, it is necessary to identify, in some way, the members of the population from which the selection is to be made. One way of identifying people is by their dwelling places. Since these dwelling places have physical locations that can be reproduced on maps, the selection of areas of ground from these maps is, in effect, selection of persons who live in these areas. When probability methods of selection are used this procedure, which has been adapted for the Canadian Labour Force Survey, is known as "area sampling".

The forty-three principal urban areas in the country are included in the sample at the outset. For these areas in which about half the Canadian population lives, area sampling begins by selection of blocks from maps containing all city blocks. Before choosing the sample of blocks the areas on the map are separated into divisions representing different social groups; blocks are selected from the divisions in such a way that each block in a division has a chance of selection proportionate to the number of dwellings in the block.

The selection of blocks constitutes the first stage of the sampling procedure; the next stage is selection of households within blocks. The households are selected to give each household within a block an equal chance of being chosen at the second stage. These selected households are assigned for interview by the enumerators.

The remainder of the country, excluding the forty-three areas mentioned above, is divided into approximately 550 areas called "primary sampling units". These units are delineated with the help of information from the preceding census so that each contains as wide a range of occupations and other characteristics as possible. They are then grouped into classes, called strata, the members of which are as similar as possible.\* One primary sampling unit is then selected from each of these strata. The application of essentially the same principle as was used in the urban areas leads finally to the selection of households from within the selected primary sampling unit which represents the stratum.

The entire process results in about 35,000 households being drawn into the labour force sample, representing, as far as possible, every region and type of community. A system of rotation is used by which approximately 1/6 of the sample is replaced each month. This maintains continuity in the estimates and avoids undue respondent resistance.

### Sampling Error

Any survey of this kind is subject to two main types of error: sampling and enumeration. Sampling error may be defined as the difference between the figures obtained in the sample survey and the figures which would have been obtained if a complete census were taken at the same moment of time, under the identical survey conditions. Non-sampling error arises from factors such as faulty questioning and response. It may be smaller for a sample survey than for a census because fewer enumerators are used and individual enumerators may be trained to a higher level of competence and their work more closely controlled. Non-sampling error is dealt with later in the discussion of enumeration problems.

For the week ended June 21, 1958, the number of persons, estimated by the Labour Force Survey as without jobs and seeking work was 320,000. One cannot say that this was the exact number of persons without jobs and looking for work in the population; rather one can say what the odds are that the "true" figure, i.e., the figure which would have been obtained by a census, will be within a range of this figure. For the estimated number of persons seeking work in the week ended June 21, 1958, the odds were 19 to 1 that the "true" figure lay between 300,000 and 340,000. For smaller estimates the 19 to 1 range would be relatively larger; for larger estimates relatively smaller. (If the estimate were 100,000 the range would be between 89,000 and 111,000, if the estimate were 500,000 the range would be between 475,000 and 525,000).

Two features of these statements of the survey results should be noted. The first is that the "true" number of persons seeking work is quite likely to fall within a range of the survey figure. To the extent that the action taken by governments and others concerned is not affected by small differences in the statistics, a degree of accuracy such as the labour force estimates provide is satisfactory.

---

\* In respect of various known characteristics such as occupations, rents paid, farm or non-farm, and so on, that are likely to affect the labour force characteristics.

The second feature of the statements is that a probability is attached to each range. There is 1 chance in 20 in the above example that the number of persons seeking work in June was under 300,000 or over 340,000. There is one chance in a million, approximately - that the true number was as low as 280,000. In the fact that they are only probably - rather than certainly - true, sampling estimates are analogous to other kinds of measurements and practical knowledge. In being subject to errors of known probability they are more satisfactory than most.

It is quite possible to set narrower limits, or to attach higher odds than 19 to 1 that the exact figures will be between the limits indicated above, but this would require an increase in the sample size, which would involve a more than proportionate increase in cost. The need to obtain accurate information at reasonable cost has resulted in a decision to make the Canadian labour force sample consist of approximately 35,000 households.

### Enumeration and the Labour Force Survey

Enumeration of the households selected in the sample for the Labour Force Survey is conducted each month by approximately 650 enumerators. In order to have the survey cover all ten provinces of Canada, sample areas are located in regions from St. John's, Newfoundland, to Victoria, British Columbia. Enumerators are supervised from regional offices located in St. John's, Halifax, Montreal, Ottawa, Toronto, Winnipeg, Edmonton and Vancouver.\*

A regional statistics officer is in charge of each of these offices which are staffed with full-time field representatives whose main functions are to hire, instruct and supervise enumerators. In areas outside the regional centres, the field representatives visit the enumerators at frequent intervals, and instruct them either individually or in small groups. In the regional office centres the enumerators are instructed at the regional offices.

The instruction consists of explanations and discussions of the labour force definitions and questionnaire, how to conduct the interview, how to fill in the questionnaire and similar matters. Initial work of all enumerators, who are part-time workers, is examined closely and further detailed instruction is given when necessary. Subsequently periodic re-instruction is conducted with a view to maintaining an adequate level of quality in the interviewing, giving special attention to the difficult cases which have arisen.

### Enumeration Procedure

When a new household is drawn into the sample a letter is sent to the household from the Regional office, stating that a DFS enumerator is coming and explaining the purpose of the Labour Force Survey. On his first visit the enumerator identifies himself and again explains the purpose of the survey.

---

\* The regional office organization is also used for the Census, special surveys, collection of price data and, when required, collection of statistical returns from business establishments.

On this visit the enumerator secures information on age, sex, marital status for each household member of working age. In subsequent visits he brings this information up to date.

The main information used to classify individuals into the principal labour force categories is obtained in response to two questions. The questions are directed to a responsible adult member of the household who supplies information on all members. Having explained the purpose of the interview and completed its introductory phase, the enumerator asks "What did you do mostly last week?" The answer to this question is used to indicate whether the person worked; looked for work; had a job but was not at work; was permanently unable to work; kept house; went to school; was retired or voluntarily idle; or did something else. In most instances the response to this question indicates the main group to which the person belongs.

If one of the first three categories (worked; looked for work; had a job but not at work) is indicated, the person is classified as in the labour force; but in some cases the final classification of the person depends upon the answer to the second question which may disclose an activity having a higher priority (see page 13). Some persons who report themselves as retired or keeping house also do some work or are looking for work, although they do not consider this a major activity. The second question (asked about all members of the household) "Did you do anything else last week?" is intended to identify such cases of dual activity. The answer is used to indicate that the person did some work; looked for work; had a job but was not at work; or did none of these. Taking both questions into consideration the person is classified to the activity having the higher priority. Thus a woman who regards herself primarily as a housewife is included in the category of "persons without jobs and seeking work", if she indicates that she was also looking for a job in the survey week.

In the case of persons classified as having worked, the enumerator asks the number of hours worked during the week. If the number of hours is less than 35, it is then established whether the person usually works part time or was prevented from working full time during this particular week because of illness, bad weather, vacation, industrial dispute, having lost or found a job during week, temporary layoff, working short-time, or some other reason.

In the case of a person who looked for work during the week, the enumerator finds out for how long the person has been looking and whether he is seeking full-time work.

When the person is classified as having a job at which he has not worked during the week, the enumerator asks further questions to determine the reason for absence from work. The important sub-groups here are: illness; bad weather; vacations; industrial disputes; and temporary layoffs.

Finally, the enumerator asks questions to determine the industry in which the person worked, his occupation, and whether he was a paid worker or operated his own business.

### Enumeration errors

The data obtained by enumeration, either of the entire population or of a sample of it, will differ in some degree from the true data as outlined by the definitions because of enumerator and respondent error. The principal elements of this type of error are:

- (i) the respondent may not recall correctly details of the past week, particularly those relating to persons other than himself;
- (ii) the enumerator may misinterpret the information given him despite careful instruction;
- (iii) the enumerator may inadvertently phrase questions which influence the answers of the respondent;
- (iv) the respondent may inadvertently phrase answers which influence the subsequent questions asked by the enumerator; and
- (v) there may be deliberate mis-statements by either enumerator or respondent.

The amount of error associated with these factors differs with the nature of the inquiry. The less complex the information asked for, the easier it is to obtain the required information. Thus, it is easier to obtain precise figures of the number of people "at work" than the number of people "looking for work" because there are various means and degrees of looking for work. In particular it is hard to classify clearly housewives and retired persons who are normally outside the labour force but who may from time to time seek either part-time or full-time employment. It is also difficult in the interviews to distinguish properly between persons on temporary layoff (usually a very small group) and persons "without jobs and seeking work".

Control of the size and nature of non-sampling error is sought in large part by questionnaire design (e.g., order and content of questions) and by enumerator selection and training. Both are directed toward obtaining answers within the definitional framework which will most correctly represent the labour force activity of those in the sample. A programme of research is carried on including regular field checks by re-interviews of respondent households.

## SECTION 5

### Comparison of Registrations at N.E.S. Offices and "Persons Without Jobs and Seeking Work"

A good deal of confusion has naturally arisen at times from the fact that there is a wide difference in the levels of the two indicators of unemployment most commonly used in Canada - between the Labour Force Survey estimate of persons "without jobs and seeking work", and the National Employment Service figure of registrations. For example, in June, 1958, the Labour Force Survey figure amounted to 320,000 persons, while the N.E.S. figure was 526,600. The percentage difference between the two series is by no means constant; it tends to be greater during the winter months than during the summer.

The reasons for the difference in the two series arise from some of the factors described in the previous two sections. It will be recalled that the statistics of N.E.S. registrations arise in the course of administration of the National Employment Service. The series of persons "without jobs and seeking work" arises from a survey specifically designed for the purpose of providing information on the activities of persons of working age - for example, working, seeking work, retired, and so on. Accordingly, the two series differ. They differ in what they attempt to measure. They differ in the method of measurement. They differ in the periods to which they refer. For these reasons, only a portion of the persons represented by N.E.S. registrations would be classified in the Labour Force category "without jobs and seeking work". In fact, registrants can be found, in varying numbers, in nearly all categories of the Labour Force Survey. The possibilities that exist are illustrated by the following table. Estimates of the number of persons referred to in the right-hand column of the table are not given because these are not known although it is clear that the numbers involved vary greatly from one category to another. In some cases the indications are that the numbers involved are quite small.

Registrations with the National Employment Service in Comparison  
with the Various Labour Force Survey Categories

Labour Force Survey Category

Registration with the N.E.S.

Working 35 hours or more (or less than 35 hours if this was the usual work week)

Some may continue to be registered although working, as a result of failure to notify the employment office. If so, would be included in statistical count although they are not available for work.

Working less than 35 hours (although usually working 35 hours or more):

(a) Laid off for part of week

May be registered and included in statistics if lay-off occurred on or prior to Thursday when N.E.S. count made.

(b) On short time

May be registered but are not included in statistical count.

(c) Lost job during week

May be registered provided job ended on or prior to Thursday. If so, would be included in statistical count. Would be included regardless of day on which job ended if job were merely temporary and applicant already registered.

(d) Found job during week

If work started after the count on Thursday, may be included in statistical count. May be counted even if work started on or before Thursday because of administrative lags.

(e) Bad weather

May be registered and included in statistics if work stopped on or prior to Thursday.

(f) Illness

If illness started while still working, would not be registered. If illness started while on benefit, may be registered but should not be included in statistical count.

(g) Industrial disputes

May be registered if they so desire and included in N.E.S. statistics even though not entitled to draw benefit.

Registrations with the National Employment Service in Comparison  
with the Various Labour Force Survey Categories

<u>Labour Force Survey Category</u>	<u>Registration with the N.E.S.</u>
Persons with jobs not at work:	
(a) Laid off for the full week	May be registered and included in N.E.S. statistics.
(b) Bad weather	May be registered and included in N.E.S. statistics.
(c) Illness	If illness started while still working, would not be registered. If illness started while not working, may be registered but would not be included in statistical count if known to be ill.
(d) Industrial dispute	May be registered if they desire and included in N.E.S. statistics but are not entitled to draw benefit.
(e) Vacation	May be registered but not likely if on paid vacation.
Persons without jobs and seeking work	Likely to be registered and included in N.E.S. statistics but not all such persons are registered.
Retired or voluntarily idle	If registered as available for employment (possibly to qualify for insurance benefits), included in N.E.S. statistics.
Keeping house	If registered as available for employment (possibly to qualify for insurance benefits), included in N.E.S. statistics.
Going to school	May be registered in advance of completion of school course, but if known to be such not included in count.
Permanently unable or too old to work	If able to accept employment usually held by people with similar handicaps and available for work, may be registered and included in N.E.S. statistics.

As already suggested the reasons for this diversity of classification may be elaborated under three headings:

- (1) Differences of concept
- (2) Differences of statistical procedure
- (3) Different time periods

### Concepts

The Labour Force Survey category of persons "without jobs and seeking work" is designed to measure a specifically defined category of the labour force. The N.E.S. series, on the other hand, emerges from an administrative process (although some adjustments are made) and is not built around nearly as specific a concept.

The Labour Force Survey estimates the number of persons who are not employed and who are actively seeking work. The N.E.S. series comprises persons who have indicated that they are available for work as required by the Unemployment Insurance Act, only a portion of whom are actively seeking work in the Labour Force Survey. Persons in the N.E.S. series but not included in the Labour Force "seeking work" group would include, for example, some of those temporarily laid off, and some persons idled by the slack season. It is important to recognize that there is no inconsistency in the existence of a group of persons often described as "marginally attached to the labour force", who register with the N.E.S. as available for employment, but who give information to the Labour Force Survey enumerator indicating that they are not actively seeking work.

### Statistical Procedure

It is evident from the description of the N.E.S. and Labour Force statistics that the procedures followed in producing the two series in question are completely different. These circumstances are likely to affect the relative levels of the series, quite apart from differences arising from concepts. In most cases it is not possible to determine how these differences affect the gap between the series, but in two cases it is possible to suggest the direction in which the figures are influenced. The factor which contributes most clearly to the gap is that some registrations remain on file for a time with the N.E.S. even though the applicant is not available for work, because he has either found a job or withdrawn from the labour force. A circumstance operating in the opposite direction is the fact that not all persons who are recorded by the Labour Force Survey as seeking work will register at N.E.S. offices.

### Different Reference Periods

The Labour Force Survey includes in the category of seeking work only those persons who did not work at all during the week. Persons who did some work during the week are not classified with persons "without jobs and seeking work" but with one of the other labour force categories. However, the N.E.S. count is designed to include persons registered at the close of business on a particular day irrespective of whether they worked at some time during the week. Circumstances such as these have the effect of widening the gap between the two series.

## SECTION 6

### Defining Unemployment

The Labour Force Survey data enable users of the information to group the various elements in the labour force into different categories, ranging all the way from those who are fully employed through those involuntarily working part-time, those with jobs but not working for various reasons, to persons without jobs and seeking work. In addition, the remainder of the population outside of the labour force is classified into various categories such as going to school, retired, housewife, and so forth.

As indicated in Section 5, persons registered at National Employment Service offices cannot be clearly allocated to any one or combination of these categories of the population. The N.E.S. registrations data, however, provide certain classifications which are valuable for labour market analysis. These classifications include detailed occupational and geographical data which cannot be derived from the Labour Force Survey.

The Labour Force Survey data provide the only satisfactory information on the extent of employment and unemployment on a national and broad regional basis.

There are often differences of opinion as to where the line should be drawn in terms of the labour force categories to distinguish between the employed and the unemployed. Certain users of the data are concerned mainly with persons actively seeking jobs; others attach importance, in addition, to those temporarily laid off, or to workers who are involuntarily on short time. Thus the definitions of unemployment implied by the remarks of various observers are not necessarily due to differences of opinion as to the facts, but arise mainly from differences of opinion as to which facts are important.

However, the widespread interest in the problems of unemployment suggests the desirability of developing general-purpose definitions which would command a wide measure of public support. Definitions of this type can be constructed by rearranging the various categories of the labour force described in Section 4. One such arrangement is put forward in the following table.

Labour Force Characteristics of the Population 14 years of  
age and over, week ended June 21, 1958

(in thousands)

	<u>June 21, 1958</u>
Total civilian non-institutional population	11,254
Civilian labour force	6,114
Employed	5,779
Unemployed	335
Without jobs and seeking work	320
Laid off for the full week	15
Not in the labour force	5,140

The group "without jobs and seeking work" is the one of most public concern, and one which from any point of view would be regarded as wholly unemployed. These people have no attachment of any kind to a job and are actively seeking work.

The group referred to as "laid off for the full week" comprises those laid off for up to 30 days. Persons laid off for a longer period are already included in "without jobs and seeking work". The former laid-off group is included in the above definition of the unemployed since they are involuntarily idle because work is not available. Most are without earnings from employment and would be seeking work except for a belief that they have a job attachment. Finally, changes in the number of persons laid off is a sensitive indicator of changing employment conditions.

The "unemployed" group as here defined is practically identical with the definition recommended for international comparisons by the International Conference of Labour Statisticians convened in 1954 by the International Labour Office. It also corresponds closely with the definition recently adopted in the United States labour force survey.



[illegible][illegible]

C. 3  
STATISTICS CANADA LIBRARY  
BIBLIOTHÈQUE STATISTIQUE CANADA



1010470262