## CATALOGUE No.

 71-001MONTHLY

Vol. $26-$ No. 10

## OTTAWA - CANADA

Published by Authority of the Minister of Trade and Commerce hming.

## THE LABOUR FORCE <br> OCTOBER 1970



Regionally, the largest changes in employment between September and October were a 32,000 increase in Ontario and declines of 13,000 in British Columbia and 10,000 in Quebec. Compared to last October, British Columbia was the only region with less employment. The largest changes in unemployment from September to October were increases of 12,000 and 11,000 in Quebec and British Columbia respectively. Compared to October last year, unemployment was higher in all the regions, except Atlantic which showed no change.

Unemployment in October was 5.0 per cent of the total labour force, compared with rates of 4.7 in September this year and 3.9 in October 1969. Seasonally-adjusted, the unemployment rate in October 1970 was 6.6 , down from 5.9 in September.


As compared with the third quarter of 1969, the labour force was 253,000 higher in the third quarter of 1970; employment and unemployment were up 113,000 and 140,000 respectively.
$\frac{\text { Third Quarter Averages }}{\left(000^{\prime} \mathrm{s}\right)}$

|  | $\underline{1970}$ | $\underline{1969}$ |
| :---: | ---: | ---: |
| Labour Force | 8,641 | 8,388 |
| Employed | 8,186 | 8,073 |
| Unemployed | 455 | 315 |

Labour force growth accelerated in the third quarter of 1970 after four quarters of relatively slow growth. The increase of 3.0 per cent, from the third quarter 1969 to the third quarter 1970, almost equalled the average annual rate of increase ( 3.3 per cent) of the preceding five-year period. The year-to-year increase in employment was only 1.4 per cent; this was well below the average annual increase ( 3.3 per cent) of the last five years.

The male labour force at $5,894,000$ was 156,000 or 2.7 per cent higher in the third quarter of 1970 than in the corresponding period of 1969; the female labour force at 2,747,000 was up 96,000 or 3.6 per cent during the same period. The rate of growth for males was greater than the five-year annual average of 2.3 per cent, while that for females was considerably lower than their average annual rate of increase of the past five years of 5.7 per cent.

The year-to-year increase, from the third quarter 1969 to the third quarter 1970 , in the number of employed was similar for both women (59,000) and men (55,000). Although the rate of increase was higher for women ( 2.3 per cent) than for men ( 1.0 per cent), both rates were below their respective five-year average annual increases of 5.6 per cent and 2.3 yer cent.

The 140,000 increase in the number of unemployed in the third quarter of 1970 , as compared to the third quarter of 1969 , was the largest year-to-year increase recorded since the second quarter of 1958 . The percentage increase was almost equal for both men and women.

|  | The Unemployed |  |  |
| :---: | :---: | :---: | :---: |
|  | $\frac{\text { Third Quarter }}{\frac{\text { Averages }}{\left(000^{\prime} s\right)}}$ |  | $\frac{\text { Year-to-Year }}{\frac{\text { Change }}{\left(000^{\prime} s\right)}}$ |
|  | 1970 | 1969 |  |
| Total | 455 | 315 | + 140 |
| Men | 324 | 223 | + 101 |
| Women | 131 | 93 | + 38 |

The increasa in the number of unemplojed is also indicated by the changes in the ratas of unemployment during this period. The overali unemployment rate rose from 3.8 in the third quarter of 1969 to 5.3 in the third quarter 1970 (the highest third quarter rate in the post-war period); the male unemployment rate rose fron 3.9 to 5.5 , while the female rate increased from 3.5 to 4.8.

The increased unemployment was felt by all age groups of both sexes; the largest relative increases occurred among men 20-34 years and women 20-24 years.

## Linemployment by Age and Sex <br> Third Quarter Averages

|  | (in thousands) |  | Rates |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1970 | 1969 | 1970 | 1969 |
| Both sexes | 455 | 315 | 5.3 | 3.8 |
| 14-19 | 131 | 93 | 12.5 | 9.2 |
| 20-24 | 99 | 61 | 7.4 | 4.7 |
| 25-34 | 70 | 47 | 3.8 | 2.7 |
| 35-44 | 61 | 43 | 3.5 | 2.5 |
| 45 \& over | 95 | 72 | 3.6 | 2.7 |
| Men | 324 | 223 | 5.5 | 3.9 |
| 14-19 | 77 | 55 | 12.7 | 9.5 |
| 20-24 | 69 | 43 | 8.5 | 5.5 |
| 25-34 | 54 | 34 | 4.1 | 2.7 |
| 35-44 | 46 | 32 | 3.7 | 2.6 |
| $45 \&$ over | 77 | 59 | 4.0 | 3.1 |
| Women | 131 | 93 | 4.8 | 3.5 |
| 14-19 | 53 | 38 | 12.1 | 8.7 |
| 20-24 | 30 | 18 | 5.6 | 3.5 |
| 25 \& over | 48 | 37 | 2.7 | 2.2 |

On the year-to-year basis, the number of unemployed rose in all regions with the Atlantic region showing the smallest relative increase and British Columbia the largest.

The Unemployed by Region
$\frac{\text { Third Quarter }}{\frac{\text { Averages }}{\left(000^{\prime} s\right)}} \quad \frac{\text { Year-to-Year }}{\frac{\text { Change }}{\left(000^{\prime} s\right)}}$
$1970 \quad \underline{1969}$

| Atlantic | 41 | 37 | +4 |
| :--- | ---: | ---: | :--- |
| Quebec | 167 | 134 | +33 |
| Ontario | 130 | 82 | +48 |
| Prairies | 50 | 29 | +21 |
| B.C. | 66 | 33 | +33 |

Regional unemployment rates indicate that both Ontario and the Prairie region continued to maintain levels of unemployment substantially below the national average, despite experiencing greater than proportional percentage increascs in the number of unemployed during this period.
(continued on page 8 )

## Technical Notes <br> Scope of Labout Force Survey

The statistics contained in this report are based on information obtained through a sample survey of households. Interviews are carried out in about 30,000 households chosen by area sampling methods across the country(1). The Labour Force Survey, started in November 1945, was taken at quarterly intervals until November 1952. Since then it has been carried out monthly. Estimates of employment, unemployment and non-labour force activity refer to the specific week covered by the survey each month.

The sample used in the surveys of the labour force has been designed to represent all persons in the population 14 years of age and over residing in Canada, with the exception of: residents of the Yukon and Northwest Territories, Indians living on
reserves, inmates of institutions and members of the armed forces. These excluded categories amount to about three per cent of the total population 14 years of age and over.

Estimates derived from a sample survey are subject to sampling and non-sampling errors. Aspects of this subject in relation to the Labour Force Survey are reviewed under "Reliability of Estimates" on page 8.
(1) For a comprehensive description of the design of the Labour Force Survey, see Dominion Bureau of Statistics, Canadian Labour Force Survey - Methodology, Catalogue No. 71-504, Ottawa, 1965.

## Labour Force Statistics

Contents of the Tables - The results of the survey are presented in the tables on pages 4 to 7 of this report.

Canada, Labour Force (pages 4 and 5).
Tables 1 to 3 refer to the labour force, em. ployment and unemployment and contain labour force participation and unemployment rates.

Canada, Employed (page 6). Tables 4 to 6 contain further detall on employment.

Canada, Unemployed (page 7). Table 7 con-
tains further detail on unemployment.
Regions, Labour Force (page 7). Table 8
contalns labour force data for the regions.
Supplementary Data - From time to time, additional data on particular aspects of the labour force or 1 to components will be obtained. Such material, as it becomes avallable, will be either included in this report or released in separate reports.

Other Data Available - In addition to the published statistics, there is a considersble amount of data which can be obtained on request. Following is a list of material avallable.

## For Canada only:

1. Age and sex distributions.
2. Marital status and sex distributions.
3. Employed
(a) Reasons for working less than full-time.
(b) Hours worked by sex for total employed, agriculture and non-agriculture, and for paid workers, non-agriculture.
(c) Industry and occupation groups, by sex for total employed and for paid workers.
4. Persons not in the labour force by category.

## For regions:

5. Labour force: by age; by sex, agricultural and nonagricultural.
Employed: by age.
For individual provinces of Atlantic and Prairle regions:
6. Population 14 years of age and over and labour force: by sex.
Total employed, total unemployed, and total persons not in labour force.

## Definitions and Explanations

Labour Force - The civilian labour force is composed of that portion of the clvilian noninstitutional population 14 years of age and over who, during the reference week, were employed or unemployed.

Employed - The employed Inciudes all persons who, during the reference week:
(a) did any work for pay or profit;
(b) did any work which contributed to the running of a farm or business opersted by a related member of the household; or
(c) had a job, but were not at work, because of bad weather, 111 ness, industrial dispute, or vacation, or because they were taking time off for other reasons.
Zursons who had jobs but did not work during the weference week and who also looked for work are nincluded in the unemployed as persons without work and seeking work.

Unemployed - The unemployed includes all persons who, through the reference week:
(a) were without work and seeking work, i.e., did not work during the reference week and were looking for work; or would have been looking for work except that they were temporarily 111, were on indefinite or prolonged layoff, or belleved no suitable work was available in the community; or
(b) were temporarily lald off for the Eull week, 1.e., were waiting to be called back to a job from which they had been laid off for less than 30 days.

Not in the Labour Force - Those not in the labour force include all civilians 14 years of age and over (exclusive of institutional population) who are not classified as employed or unemployed. This category inciudes those: going to school; keeping house; too old or otherwise unable to work; and voluntarily idle or retired. Housewives, students and others who worked part-time are classified as employed. If they looked for work they are classified as unemployed.

Note: Due to the introduction of revised weighting factors in March 1965 , small adjustments have been made to estimates published before that time. See the March 1965 edition of this report, page 8.

(1) "S.D." = Standard deviation. For explanation, see "Reliability of Estimates", page 8.
(2) Excludes inmates of institutions, members of the armed services, Indians living on reserves and residents of the Yukon and Northwest Territories.
(3) The labour force as a percentage of the population 14 years of age and over.
(4) The unemployed as a percentage of the labour force.
$r$ Revised.
Note: With the exception of Table 2, all statistics refer to a specific week, the last day of which is indicated.

Note: Due to the introduction of revised weighting factors in March 1965, small adjustments have been made to estimates published before that time.
See the March 1965 edition of this report, page 8.


(1) (2) (3) (4) See footnotes on opposite page.

Note: a) The alphabetic symbol following each estimate in table 3 indicates its standard deviation.
For explanation, see "Reliability of Estimates", page 8.
b) Newfoundland included in estimates only from 1950.

Note: Due to the introduction of revised weighting factors in March 1965 , small adjustments have been made to estimates published before that time. See the March 1965 edition of this report, page 8.

| $\frac{\text { Table } 4}{\text { Sumary }}$ | $\underset{(1)}{S . D .}$ | 1970 |  | 1969 |  | 1968 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Oct. } \\ & 17(2) \end{aligned}$ | Sept. <br> 19 | $\begin{aligned} & \text { Oct. } \\ & 18(2) \end{aligned}$ | Sept. 20 | $\begin{aligned} & \text { Oct. } \\ & 19(2) \end{aligned}$ | Sept. <br> 21 |
| Total employed Agriculture Non-agriculture | $\begin{aligned} & \mathrm{a} \\ & \mathrm{~d} \end{aligned}$ | $\begin{array}{r} 7,993 \\ 524 \\ 7,469 \end{array}$ | 7,986 558 7,428 | $\begin{array}{r} 7,828 \\ 548 \\ 7,280 \end{array}$ | $\begin{array}{r} 7,847 \\ 581 \\ 7,266 \end{array}$ | $\begin{array}{r} 7,707 \\ 577 \\ 7,130 \\ \hline \end{array}$ | $\begin{array}{r} 7,709 \\ 605 \\ 7,104 \end{array}$ |
| Employed, non-agriculture | a | -7,469 | 7.428 | -280 ${ }^{-}$ | 7,266 | , $1 \overline{3} 0$ | 的 |
| Usually work 35 hours or more | a | 6,530 | 6,584 | 6,431 | 6,482 | 6,340 | 6,381 |
| At work 35 hours or more | a | 3,469 | 6,024 | 3,450 | 5,961 | 3,508 | 5,884 |
| At work less than 35 hours, or not at work | c | 3,060 | 559 | 2,981 | 521 | 2,832 | 497 |
| Due to economic reasons(3) | e | 66 | 73 | 83 | 68 | 69 | 65 |
| Due to other reasons(4) | c | 2,995 | 487 | 2,898 | 453 | 2,763 | 432 |
| Usually work less than 35 hours | c | 939 | 844 | 849 | 784 | 790 | 723 |


|  | $\begin{aligned} & \text { S.D. } \\ & (\mathrm{I}) \end{aligned}$ | 1970 |  | 1969 |  | 1968 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry |  | $\begin{array}{r} \text { Oct. } \\ 17 \\ \hline \end{array}$ | Sept. 19 | $\begin{array}{r} \text { Oct. } \\ 18 \\ \hline \end{array}$ | Sept. 20 | $\begin{array}{r} \text { Oct. } \\ 19 \\ \hline \end{array}$ | Sept. |
| Total employed | a | 7,993 | 7,986 | 7,828 | 7,847 | 7,707 | 7,709 |
| Agriculture | d | 524 | 558 | 548 | 581 | 577 | 605 |
| Other primary industries | d | 214 | 231 | 208 | 218 | 225 | 235 |
| Manufacturing | c | 1,811 | 1,803 | 1,829 | 1,821 | 1,769 | 1,805 |
| Construction | c | 486 | 520 | 505 | 531 | 520 | 513 |
| Transportation and other utilities | c | 690 | 703 | 685 | 702 | 665 | 682 |
| Trade | c | 1,356 | 1,330 | 1,280 | 1,260 | 1,272 | 1,238 |
| Finance, insurance, real estate | d | 378 | 363 | 365 | 362 | 327 | 317 |
| Community, personal, other services | c | 2,044 | 1,999 | 1,961 | 1,927 | 1,885 | 1,858 |
| Public administration | c | 489 | 480 | 447 | 445 | 467 | 456 |

Note: Since late 1962 , statistics in Table 5 have been published on a 3 month average basis. However since January 1966, it has been possible to provide monthly estimates of the employed by industry. Accordingly, beginning with the February 1968 report, the statistics in Table 5 refer to the monthly reference periods. Industry estimates on the 3 -month average basis are avallable on request from the Special Surveys Division.

| Table 6 <br> Class of worker, agriculture and non-agriculture, and sex Week ended October 17, 1970 | Total | Paid workers | Own account workers | Employers | Unpaid family workers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total employed Agriculture Non-agriculture | $\begin{array}{r} 7,993 a \\ 524 \mathrm{~d} \\ 7,469 \mathrm{a} \end{array}$ | $\begin{array}{r} 6,938 a \\ 105 \mathrm{a} \\ 6,833 \mathrm{a} \end{array}$ | $\begin{array}{ll} 526 & c \\ 251 & d \\ 275 & d \end{array}$ | $\begin{array}{r} 337 \mathrm{c} \\ 46 \mathrm{E} \\ 291 \mathrm{~d} \end{array}$ |  |
| Men <br> Agriculture Non-agriculture | $\begin{array}{r} 5,386 \mathrm{a} \\ 444 \mathrm{~d} \\ 4,941 \mathrm{a} \end{array}$ | $\begin{array}{r} 4,556 \mathrm{a} \\ 86 \mathrm{e} \\ 4,470 \mathrm{a} \end{array}$ | $\begin{aligned} & 448 \mathrm{c} \\ & 248 \mathrm{~d} \\ & 201 \mathrm{~d} \end{aligned}$ | $\begin{array}{rl} 306 & c \\ 45 f \\ 261 & d \end{array}$ | $\begin{aligned} & 75 \mathrm{~d} \\ & 66 \mathrm{e} \\ & 10 \mathrm{f} \end{aligned}$ |
| Women <br> Agriculture Non-agriculture | $\begin{array}{r} 2,607 \mathrm{~b} \\ 80 \mathrm{e} \\ 2,528 \mathrm{~b} \end{array}$ | $\begin{array}{r} 2,382 \mathrm{~b} \\ 18 \mathrm{f} \\ 2,363 \mathrm{~b} \end{array}$ | $\begin{array}{r} 77 \mathrm{e} \\ 4 \mathrm{~g} \\ 74 \mathrm{e} \end{array}$ | $\begin{array}{r} 31 \mathrm{e} \\ 2 \mathrm{~g} \\ 30 \mathrm{e} \end{array}$ | $\begin{array}{r} 117 \mathrm{~d} \\ 56 \mathrm{e} \\ 61 \mathrm{e} \end{array}$ |

(1) "S.D." = Standard deviation. For explanation, see "Reliability of Estimates", page 8.
(2) In October 1968, 1969 and 1970, an unusually large number worked less than 35 hours due to Thanksgiving Day being in the reference week.
(3) Economic ressons for not working 35 hours or more include short time, layoff for part of the week and termination or start of employment during the week.
(4) Other reasons for not working 35 hours or more include illness, bad weather, industrial dispute, vacation, and reasons such as a statutory holiday in the week.
Note: The alphabetic symbol Eollowing each estimate in table 6 indicates its standard deviation.
For explanation, see "Reliability of Estimates", page 8.

Note: Due to the introduction of revised weighting factors in March 1965, small adjustments have been made to estimates published before that time.
See the March 1965 edition of this report, page 8.
Regions, Labour Force
(Estimales in thousonds)

| $\frac{\text { Table } 7}{\text { Unemployed }}$ | $\begin{aligned} & \text { S.D. } \\ & \text { (i) } \end{aligned}$ | 1970 |  | 1969 |  | 1968 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Oct. $17$ | Sept. 19 | Oct. $18$ | Sept. 20 | Oct. $19$ | Sept. 21 |
| Total unemployed | d | 419 | 398 | 314 | 279 | 288 | 262 |
| Without work and seeking work | d | 391 | 381 | 298 | 265 | 275 | 249 |
| Seeking full-time work | d | 363 | 358 | 275 | 249 | 256 | 234 |
| Seeking part-time work | f | 29 | 23 | 23 | 16 | 19 | 15 |
| On temporary layoff up to 30 days | £ | 27 | 17 | 16 | 14 | 13 | 13 |
| Without work and seeking work | d | 391 | 381 | 298 | 265 | 275 | 249 |
| Seeking under 1 month | d | 109 | 112 | 98 | 88 | 95 | 83 |
| Seeking 1-3 months | d | 137 | 130 | 112 | 100 | 96 | 91 |
| Seeking 4-6 months | e | 74 | 61 | 42 | 30 | 39 | 38 |
| Seeking more than 6 months | e | 72 | 78 | 46 | 47 | 45 | 37 |


| Table 8 <br> Regional distributions Wuen ended October 17, 1970 | Canada | Atlantic region | Quebec | Ontario | Prairie region | British Columbia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Population 14 years of age and over Men <br> Women | $\begin{array}{r} 15,128 \\ 7,496 \\ 7,632 \end{array}$ | $\begin{array}{r} 1,389 \\ 688 \\ 701 \end{array}$ | $\begin{aligned} & 4,311 \\ & 2,126 \\ & 2,185 \end{aligned}$ | $\begin{aligned} & 5,447 \\ & 2,688 \\ & 2,759 \end{aligned}$ | $\begin{aligned} & 2,430 \\ & 1,223 \\ & 1,207 \end{aligned}$ | $\begin{array}{r} 1,551 \\ 771 \\ 780 \end{array}$ |
| Labour force Men Women | $\begin{aligned} & 8,412 \mathrm{a} \\ & 5,679 \mathrm{a} \\ & 2,733 \mathrm{~b} \end{aligned}$ | $\begin{aligned} & 668 \mathrm{~b} \\ & 457 \mathrm{~b} \end{aligned}$ $211 \mathrm{c}$ | $\left.\begin{array}{r} 2,335 \\ 1,603 \\ \text { a } \\ 732 \end{array} \right\rvert\,$ | $\begin{aligned} & 3,137 a \\ & 2,084 a \\ & 1,053 \mathrm{c} \end{aligned}$ | $1,399 \mathrm{~b}$ 944 a 455 c | $\begin{array}{ll} 873 \\ 591 \\ 282 \mathrm{~b} \end{array}$ |
| Employed Men Wome | $\begin{aligned} & 7,993 a \\ & 5,386 \mathrm{a} \\ & 2,607 \mathrm{~b} \end{aligned}$ | 634 b <br> 430 b <br> 204 c | $\begin{array}{r} 2,176 \mathrm{~b} \\ \mathrm{l}, 491 \mathrm{~b} \\ 685 \mathrm{c} \end{array}$ | $\begin{aligned} & 3,029 a \\ & 2,015 a \\ & 1,014 a \end{aligned}$ | $1,350 \mathrm{~b}$ 910 b 440 c | $\begin{aligned} & 804 \mathrm{~b} \\ & 540 \mathrm{~b} \\ & 264 \mathrm{~d} \end{aligned}$ |
| Agriculture <br> Non-agriculture | $\begin{array}{r} 524 \mathrm{~d} \\ 7,469 \mathrm{a} \end{array}$ | $\begin{array}{r} 30 \mathrm{e} \\ 604 \mathrm{~b} \end{array}$ | 93 e $2,083 \mathrm{~b}$ | $\begin{array}{r} 147 \mathrm{e} \\ 2,882 \mathrm{~b} \end{array}$ | $\begin{array}{r} 235 \mathrm{~d} \\ 1,115 \mathrm{c} \end{array}$ | 20 f 785 c |
| Paid workers | 6,938 a 4,556 2,382 | 554 c 369 c 184 c | $\begin{aligned} & 1,919 b \\ & 1,301 \quad b \end{aligned}$ | $\begin{aligned} & 2,714 \mathrm{~b} \\ & 1,764 \mathrm{~b} \\ & 950 \mathrm{c} \end{aligned}$ | $\begin{array}{r} 1,036 \mathrm{~b} \\ 650 \mathrm{~b} \\ 385 \end{array}$ | 715 c 471 b 243 d |
| Women | 2,382 b | 184 c | 618 c |  | 385 c | 243 d |
| Unemployed | 419 d |  | $159 \text { e }$ | 108 e 69 | 49 e | $\begin{aligned} & 69 \mathrm{e} \\ & 51 \mathrm{e} \end{aligned}$ |
| Men Women | $\begin{aligned} & 293 \mathrm{~d} \\ & 126 \mathrm{e} \end{aligned}$ | 27 7 7 | 112 e 47 f | 69 39 e | 34 e 15 g | $\begin{aligned} & 51 \mathrm{e} \\ & 18 \mathrm{f} \end{aligned}$ |
| Not in the labour force Men Women |  | $\begin{aligned} & 721 \mathrm{~b} \\ & 231 \mathrm{c} \\ & 490 \mathrm{~b} \end{aligned}$ | $\begin{array}{r} 1,976 \mathrm{~b} \\ 523 \mathrm{c} \\ 1,453 \mathrm{~b} \end{array}$ | $\begin{array}{r} 2,310 \mathrm{~b} \\ 604 \mathrm{c} \\ 1,706 \mathrm{~b} \end{array}$ | $1,031 \mathrm{~b}$ 279 c 752 b | 678 c 180 c 498 c |
| Employed $\begin{aligned} \text { 1970, } & \text { October } \\ & \text { September } 19\end{aligned}$ | $\begin{aligned} & 7,993 \text { a } \\ & 7,986 \end{aligned}$ | $\begin{aligned} & 634 \bar{b} \\ & 636 \end{aligned}$ | $\begin{aligned} & 2,176 \mathrm{~b} \\ & 2,186 \end{aligned}$ | $\begin{aligned} & 3,029 \text { a } \\ & 2,997 \end{aligned}$ | $\begin{aligned} & 1,350 \mathrm{~b} \\ & 1,350 \end{aligned}$ | $\begin{aligned} & 804 \mathrm{~b} \\ & 817 \end{aligned}$ |
| 1969, October 18 | 7,828 | 625 | 2,155 | 2,929 | 1,310 | 809 |
| September 20 | 7,847 | 624 | 2,153 | 2,934 | 1,330 | 806 |
| 1968, October 19 | 7,707 | 616 | 2,128 | 2,886 | 1,320 | 757 |
| September 21 | 7,709 | 630 | 2,151 | 2,859 | 1,311 | 758 |
| Unemployed 1970, October 17 | 419 d | 34 e | 159 e | 108 e |  |  |
| September 19 | 398 | $35$ | $\begin{aligned} & 147 \\ & 135 \end{aligned}$ | $\begin{array}{r} 114 \\ 73 \end{array}$ | $\begin{aligned} & 44 \\ & 32 \end{aligned}$ | $\begin{aligned} & 58 \\ & 40 \end{aligned}$ |
| 1969, October 18 | 314 279 | $\begin{aligned} & 34 \\ & 32 \end{aligned}$ | $\begin{aligned} & 135 \\ & 124 \end{aligned}$ | $\begin{aligned} & 73 \\ & 68 \end{aligned}$ | 32 22 | 40 33 |
| 1968, October 19 | 288 | 34 | 113 | 75 | 24 | 42 |
| September 21 | 262 | 28 | 99 | 73 | 26 | 36 |

(1) "S.D." = Standard deviation. For explanation, see "Reliability of Estimates", page 8.

Note: The alphabetic symbol following each estimate in table 8 indicates its standard deviation. For explanation, see "Reliability of Estimates", page 8.

## (a) Sampling Error

The estimates in this report are based on a sample of households. Somewhat different figures alght have been obcained if a complete census had been taken using the ame questionnaires, interviewers, supervisors, processing, etc. as those actually used in the Labour Force Survey. This difference is called the sampling error of the eatimates. In the design and procesaing of the Labour Force Survey extenaive effort have been made to minimize the sampling error. The sampling error (expressed as a per cent of the estimate itrrefers to) 18 not the same for all estimates; of two estimates the larger one will likely have amaller per cent ampling error and of two estimates of the same size the one referring to a characteristic more evenly distributed across the country will tend to have amaller per cent sampling variability. Also, estiagles relating to age and aex are umally more rellable than other ealimates of comparable size.

## (b) Non-tanpling Errore

Errors, which are not related to ampling, may occur at almost every phase of a survey operation. Interviewers may misunderstand instructions, respondents may aske errors in answering questions, the anawers may be incorrectly entered on the questionnalres and errors may be introduced in the processing and tabulations of the data, All these errors are called non-sampling errors. Some of the non-sampling errors will usually balance out over a large number of observations but systematically occuring errors will contribute to biases. Non-sampling errors can be reduced by careful design of questionnalres, intensive training and supervistion of interviewers and a thorough control of the processing operstion. In general, the more personal and more subjective inquiries are subject to larger errora. Also, data refering to persons with less stable labour force status will heve relatively large non-sampling errors.

## (c) Alphabetic Indicators of Standard Deviation

The sampling ertor, as deactibed under (a) is not known, A quantity, called the standard deviation, can however be estimated from sample data itself. The standard deviation of an estimate is a statiscical measure of its sampling error. It siso pertially mesures the effect on non-sampling errors, but does not reflect any systematic blases in the dats. The chancea are about 68 out of 100 that the difference between a sample estimate and the corresponding census figure would be less than the standard deviation. The chances are about 95 out of 100 that the difference would be less then twice the standard deviation and about 99 out of 100 that it would be less than $21 / 2$ times as latge.

The standard deviations of the estimates, expressed as a par cont of the estimates, are indicated by lettert. The letter "a" indicates thet the standard deviation is smeller
than $0.5 \%$ of the estimate, the letter "b" indicates that the standard deviation in between $0.6 \%$ and $1.0 \%$ of the estimate and so on shown in the cable below.

Alphabetic designation of per cent standard deviations

| Alphabetic indicator | Per cent standard deviation |
| :---: | :---: |
| a | $0.0 \%-0.5 \%$ |
| $b$ | $0.6 \%-1.0 \%$ |
| e | $1.1 \%-2.5 \%$ |
| $d$ | $2.6 \%-5.0 \%$ |
| e | $5.1 \%-10.0 \%$ |
| f | $10.1 \%-15.0 \%$ |
| g | $15.1 \%-$ |

The actual standard deviation of an extimate is not the same each month. Since the standard deviations of the current entimates are not avaliable at the time when this report is published, the alphabetic indicators are based on the sverage standard deviations during the last year. They should, therefore, be interpreted only an indications of the order of magnitude of the standard deviations.

## (d) Standard Deviation of Month-to-Month Changes

A rough upper limst for the atandard deviation of the difference (change) between two estimates referring to two months up to year apart may almo be indicated uaing the table above. For most characteristice published in this report the etandard deviation of the difference between two entimates in likely to be somewhat amiller than the standard deviation of the smaller of the two estimes or in the immediately preceding range.

For example, suppose that a hypothetical estimate in May and June was 513,000 and 625,000 reapectively and the per cent standard deviacion of both estinates was indicated by the letter "c", 1.e. it was between $1.1 \%$ and $2.5 \%$. The difference between the May and June estimates ( 112,000 ) would, therefore, have a tandard deviation which would likely be smalle than $2.5 \%$ of 513,000 , 1.e. it would 11 kely be amslier than 12,800 .
(e) Current Estimaten of Standard Deviatione

Standard deviation are computed monthly for several entimates and month-to-month changes. These are available unually in a few week after the publication of this report and can be obtained on request. Beginning with 1966, an ansual report on the standard deviations during the last year wlll be releaned.

Third Quarter Review of the Labour Force 1969-1970 (continued from page 2)
$\frac{\text { Unemployment Rates for Canada and the Regions }}{\text { Third Quarter Averages }}$

|  | 1970 | $\underline{1969}$ |
| :--- | ---: | ---: |
| Canada | 5.3 | 3.8 |
| Atlantic | 5.9 | 5.4 |
| Quebec | 7.0 | 5.7 |
| Ontario | 4.0 | 2.6 |
| Prairies | 3.5 | 2.1 |
| British Columbia | 7.3 | 3.9 |

The pattern of the duration of unemployment also changed from the third quarter of 1969 to the third quarter 1970. A greater proportion of the unemployed, in the latter period, had been unemployed for more than one month.

## Duration of Unemployment <br> Third Quarter Averages

|  | (in thousands) |  | \% of total |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1970 | 1969 | $\underline{1970}$ | $\underline{1969}$ |
| Total unemployed | 455 | 315 | 100 | 100 |
| Less than 1 month(1) | 134 | 110 | 29 | 35 |
| 1 to 3 months | 173 | 115 | 38 | 37 |
| 4 to 6 months | 65 | 34 | 14 | 12 |
| 7 months or over | 82 | 56 | 18 | 18 |
| (1) Includes persons 30 days. | $\text { on } t e$ | porary | yoff |  |

