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### THE LABOUR FORCE

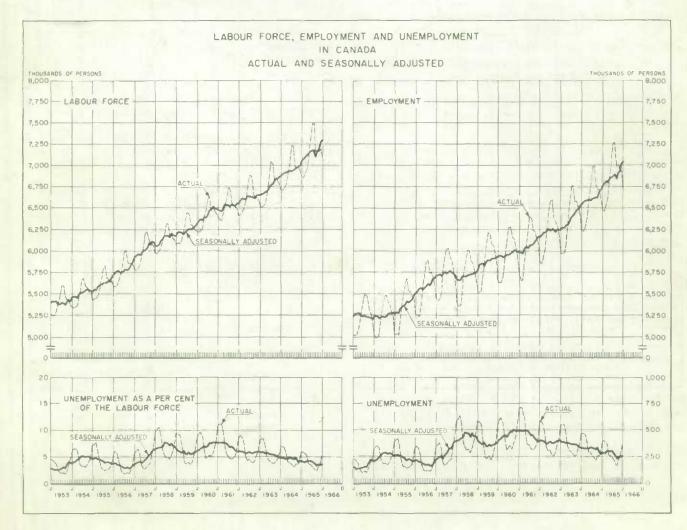
JANUARY 1966

The Canadian labour force was estimated at 7,093,000 in the week ended January 15, 1966. Of this total 6,734,000 were employed for all or part of the week and 359,000 were unemployed for the whole week. The labour force declined by 92,000 from December; the employed decreased by 199,000 and the unemployed increased by 107,000 over the month. In January 1966, the number of employed persons was 273,000 higher and the number of unemployed was 48,000 lower than in January 1965; the labour force was 225,000 higher.

Nonagricultural industries accounted for 189,000 of the decrease in employment from December. There was little change in employment

in agriculture. Between January 1965 and January 1966 there was a rise of 331,000 in nonagricultural employment while in agriculture there was a decline of 58,000. From December, there was a decrease of 148,000 in employed men and of 51,000 in employed women. There were 138,000 more men and 135,000 more women employed in January 1966 than in January 1965.

The unemployment rate, expressed as a percentage of the labour force, was 5.1 in January 1966, compared with 3.5 in December 1965 and 5.9 in January 1965. Seasonally adjusted, the unemployment rate was 3.5 in January 1966.



#### Fourth Quarter Review of the Labour Forgo 1964-1965

Between the fourth quarter of 1964 and the fourth quarter of 1965, the labour force increased by 223,000, or 3.2 per cent, and employment by 275,000, or 4.1 per cent. Unemployment declined by 52,000.

Fourth	Quarter	Averages
	(000 s)	

	1965	1964
Labour force	7,174	6,951
Employed Unemployed	6,960 214	6,685 266

During the fourth quarter of 1965 the labour force continued to expand at a rapid rate. The year-to-year increase in the total labour force of 3.2 per cent followed rates of 3.1 and 3.2 for the second and third quarters, respectively. The increase in the labour force was greater than the ten-year average in each quarter of 1965 for men and in all but the first quarter for women.

# Year-to-Year Percentage Increases in the Labour Force 1964-1965

	1st Qtr.			4th Qtr.	Cal. Year	1954-1964 Average
Both sexes	2.4	3.1	3.2	3.2	3.0	2.3
Men	1.8	2.2	2.2	2.2	2.1	1.5
Women	3.8	5.7	5.8	5.8	5.3	4.7

For the year as a whole, the labour force averaged 7,141,000 in 1965 and 6,933,000 in 1964. This gain of 3.0 per cent was the highest of any year since 1957. Of the total increase from a year earlier, men and women each accounted for 104,000. However, the percentage increase for women (5.3 per cent) continued to be greater than for men (2.1 per cent).

Total employment averaged 6,960,000 in the fourth quarter of 1965, a rise of 275,000, or 4.1 per cent, from the corresponding quarter of 1964. Male employment rose by 153,000, or 3.2 per cent and female employment by 122,000 or 6.2 per cent. Persons 20 - 24 years of age experienced the largest relative gains which were 8.0 per cent for men and 11.1 per cent for women.

Employment in the fourth quarter was higher in 1965 than in 1964 for all regions, gains ranging between 2.8 per cent in the Prairies and 6.6 per cent in the Atlantic region.

In each quarter of 1965, the year-to-year increase in employment was substantially greater

than the average annual rate of increase (1954-64), for all regions.

# Percentage Increase in Employment Canada and Regions

		19	64-19	65	400	Average Annual
	lst Otr.	2nd Otr.	3rd Otr	4th Otr.	Cal. Year	Increase 1954-64
Canada	3.6	3.7	3.8	4.1	3.8	2.3
Atlantic	4.8	3.1	3.7	6.6	4.4	1.5
Quebec	3.3	5.3	4.7	5.2	4.7	2.2
Ontario	3.5	2.7	2.8	3.1	3.0	2.4
Prairies	2.6	3.2	3.4	2.8	2.9	2.3
B.C.	6.0	4.8	6.0	5.2	5.6	3.3

Comparing fourth quarters, employment in the nonagricultural industries was 318,000 (5.2 per cent) higher in 1965 than in 1964, but agricultural employment was 42,000 lower. Substantial gains in nonagricultural employment were evident in all regions, increases ranging between 4.1 per cent in Ontario and 7.6 per cent in the Prairies.

Most of the increase in employment in the fourth quarter 1965 from a year earlier was in the service-producing industries. Community, personal and other service accounted for 128,000 of the increase. There was little change in the goods-producing industries, gains in some industries compensating for declines in others.

Total unemployment was 52,000 lower in the fourth quarter of 1965 then the fourth quarter of 1964. Most of the decline was among men.

Unemployment rates in the fourth quarter of 1965 were substantially lower than a year earlier and were the lowest of any corresponding quarter since 1956, for both men and women and also for all the regions.

# Unemployment Rates Fourth Quarter Averages

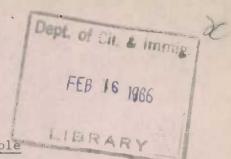
1965	1964
3.0	3.8
3.3	4.3
2.3	2.7
5.2	6.3
4.3	5.1
1.9	2.7
1.8	2.5
3.4	4.5
	3.0 3.3 2.3 5.2 4.3 1.9 1.8

CATALOGUE NO 71-001 MONTHLY

### THE LABOUR FORCE

January 1966

Notes on the Redesigned Labour Force Sample



Over the past two years a redesigned sample has been brought into use for the Labour Force Survey. The new sample was introduced progressively, province by province, on completion of the preparatory work for each province. The time-table was as follows:

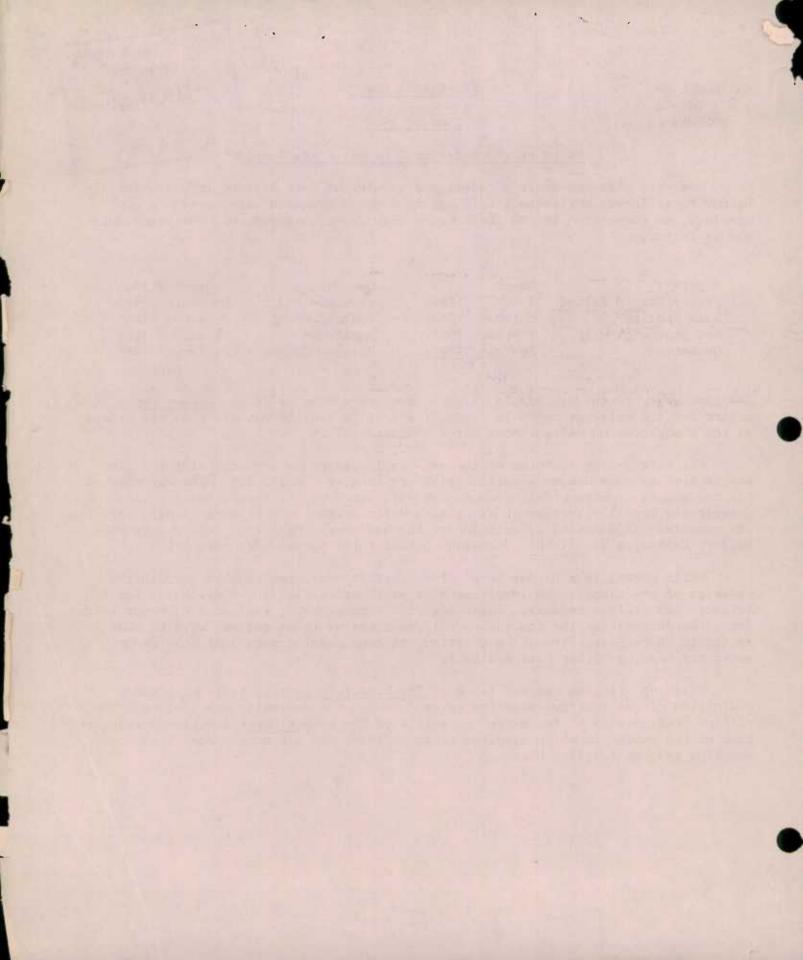
Alberta:	March	1964	Ontario.	September	1965
Prince Edward Island:	July	1964	Newfoundland:	December	1965
Nova Scotia:	October	1964	Saskatchewan:	December	1965
New Brunswick:	February	1965	Manitoba:	January	1966
Quebec:	February	1965	British Columbia:	January	1966

The changeover to the new sample in each province was noted in the Labour Force report for the relevant month (on page 8) and an indication was given of the effect of the changeover on major labour force characteristics.

The outstanding features of the new sample design as compared with the old sample are its much deeper stratification and greater flexibility. The coverage of the new sample is more widely spread; the efficiency of the stratification will deteriorate more slowly through time; such deterioration can be more readily detected and remedied. A detailed description of the new sample design is provided in DBS Report, Catalogue No. 71-504, "Canadian Labour Force Survey (Methodology)".

While generally a higher level of reliability has been reached through the redesign of the sample, the improvement is most noticeable in the estimates for the Atlantic and Prairie regions. Beginning with January 1966, estimates of major labour force characteristics for the individual provinces of these regions will be made available on request, without restriction, as indicated on page 3 of this report under the heading "Other Data Available".

Starting with the current issue of The Labour Force each table will carry indication of the relative sampling error to which the estimates are subject. The section "Reliability of Estimates" on page 8 of The Labour Force contains a description of the manner in which sampling error is indicated and some comments on both sampling and non-sampling errors.



#### Technical Notes

#### Scope of Labour Force Survey

The statistics contained in this report are based on information obtained through a sample survey of households. Interviews are carried out in nearly 35,000 households chosen by area sampling methods across the country. Percentages of total households selected for the sample were as follows: Atlantic region, 1.6 p.c.; Quebec, 0.5 p.c.; Ontario, 0.5 p.c.; Prairie region, 0.8 p.c.; British Columbia, 0.7 p.c. 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.

#### 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, employment and unemployment and contain labour force participation and unemployment rates.

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

Canada, Unemployed (page 7). Table 7 contains further detail on unemployment.

Regions, Labour Force (page 7). Table 8 contains labour force data for the regions.

Supplementary Data - From time to time, additional data on particular aspects of the labour force or its components will be obtained. Such material, as it becomes available, will be either included in this report or released in separate reports.

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

#### 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:

 Labour force: by age; by sex, agricultural and nonagricultural.

Employed: by age.

# For individual provinces of Atlantic and Prairie regions:

 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 civilian noninstitutional population 14 years of age and over who, during the reference week, were employed or unemployed.

Employed - The employed includes 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 operated by a related member of the household; or

(c) had a job, but were not at work, because of bad weather, illness, industrial dispute, or vacation, or because they were taking time off for other reasons.

Persons who had jobs but did not work during the reference week and who also looked for work are included 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 no work during the reference week and were looking for work; or would have been looking for work except that they were temporarily ill, were on indefinite or prolonged layoff, or believed no suitable work was available in the community; or

(b) were temporarily laid off for the full week, i.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 includes 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.

(Estimates in thousands)

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.

	S.D.	1966		65	19	64	1963
<u>Table 1</u> Summary	(1)	Jan. 15(2)	Dec. 11(2)	Jan. 16	Dec.	Jan. 18	Dec.
<u>Total</u>	CROSS						
Population 14 years of age and over(3)	- 11	13,305	13,278	12,977	12,951	12,680	12,656
Labour force	a	7,093	7,185	6,868	6,912	6,709	6,786
Employed	a	6,734	6,933	6,461	6,628	6,243	6,440
Agriculture	d	460	470	518	527	581	589
Non-agriculture	a	6,274	6,463	5,943	6,101	5,662	5,851
Unemployed	d	359	252	407	284	466	346
Not in labour force	a	6,212	6,093	6,109	6,039	5,971	5,870
Participation rate (4)	a	53.3	54.1	52.9	53.4	52.9	53.6
Unemployment rate (5)							
Actual	d	5.1	3.5	5.9	4.1	6.9	5.1
Seasonally adjusted		3.5	3.4	4.2	4.0°	4.9	4.9
Men							
Population 14 years of age and over(3)		6,593	6,580	6,429	6,417	6,284	6,273
Labour force	a.	4,998	5,046	4,895	4,909	4,811	4,841
Employed	a	4,696	4,844	4,558	4,675	4,416	4,547
Agriculture	d	412	424	479	481	535	537
Non-agriculture	a	4,284	4,420	4,079	4,194	3,881	4,010
Unemployed	d	302	202	337	234	395	294
Not in labour force	С	1,595	1,534	1,534	1,508	1,473	1,432
Participation rate (4)	a	75.8	76.7	76.1	76.5	76.6	77.2
Unemployment rate (5)	d	6.0	4.0	6.9	4.8	8.2	6.1
Women							
Population 14 years of age and over(3)		6,712	6,698	6,548	6,534	6,396	6,383
Labour force	ъ	2,095	2,139	1,973	2,003	1,898	1,945
Employed	ъ	2,038	2,089	1,903	1,953	1,827	1,893
Agriculture	е	48	46	39	46	46	52
Non-agriculture	С	1,990	2,043	1,864	1,907	1,781	1,841
Unemployed	е	57	50	70	50	71	52
Not in labour force	_a	_ 4,617	4,559	_4,575_	4,531	4,498	4,438
Participation rate (4)	Ъ	31.2	31.9	30.1	30.7	29.7	30.5
Unemployment rate (5)	f	2.7	2.3	3.5	2.5	3.7	2.7

<sup>(1) &</sup>quot;S.D." = Standard deviation. For explanation, see "Reliability of Estimates", page 8.

<sup>(2)</sup> See "Introduction of new samples in Manitoba and British Columbia", page 8.

<sup>(3)</sup> Excludes inmates of institutions, members of the armed services, Indians living on reserves and residents of the Yukon and Northwest Territories.

<sup>(4)</sup> The labour force as a percentage of the population 14 years of age and over.

<sup>(5)</sup> The unemployed as a percentage of the labour force.

r Revised.

Note: With the exception of Tables 2 and 5, 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.

Table 2 Annual averages, 1946-1965	S.D. (1)	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Population 14 years of age and over (2)		13,128	12,817	12,536	12,280	12,053	11,831	11,605	11,388	11,123	10,807
Labour force	a	7,141	6,933	6,748	6,615	6,521	6,411	6,242	6,137	6,008	5,782
Employed	a	6,862	6,609	6,375	6,225					5,731	5,585
Agriculture	d	594	630	649	660	681	683			748	777
Non-agriculture	a	6,268	5,979	5,726	5,565	5,374	5,282	5,170	4,988	4,983	4,808
Unemployed	d	280	324	374	390	466			432	278	197
Not in the labour					1711						
force	a	5,986	5,884	5,787	5,665	5,531	5,420	5,363	5,250	5,115	5,025
Participation rate(3)	a	54.4	54.1	53.8	53.9	54.1	54.2	53.8	53.9	54.0	53.5
Unemployment rate (4)	d	3.9	4.7	5.5	5.9	7.1	7.0	6.0	7.0	4.6	3.4
	195	5 1954	195	53 19	52 1	951	1950	1949	1948	1947	1946
Population 14 years											
of age and over (2)	10,59	7 10,39	10,16	54 9,9	956 9,	732 9	,615	9,268	9,141	9,007	8,779
Labour force	5,610	5,49	5,39	97 5,3	324 5.	223 5	,163	5,055	4,988	4,942	4,829
Employed	5.36						,		4,875	4,832	4,666
Agriculture	81							,	1,096	1,122	1,186
Non-agriculture	4,54	6 4,36	5 4,3	77 4,2	278 4.		-		3,779	3,711	3,480
Unemployed	24					126	186	141	114	110	163
Not in the labour	34										
force	4,98	7 4,89	8 4,76	67 4,6	32 4,	509 4	,453	4,213	4,153	4,065	3,950
Participation rate(3)	52.	9 52.	53.	.1 53	3.5 5	3.7	53.7	54.5	54.6	54.9	55.0
Unemployment rate (4)	4.	4 4.0	5 3.	.0 2	2.9	2.4	3.6	2,8	2.3	2.2	3.4

		14-19 years all persons			65 years and over all		
Table 3 Age, sex, and marital status	Total		Men			Wor	
Week ended January 15, 1966			Married	Other	Married	Other	persons
Population 14 years of age and over(2)	13,305	2,184	3,788a	1,020c	3,900a	980 c	1,433
Labour force Employed Unemployed	7,093a 6,734a 359d	656 c 591 c 65 e	3,630a 3,466a 164e	837 c 759 c 78 e	1,060° 1,038° 22f	697 c 680 c 17 f	213d 200d 13B
Not in the labour force	6,212a	1,528Ъ	158 d	183 d	2,840b	283 d	1,220b
Participation rate (3) - 1966, Jan. 15 1965, Dec. 11	53.3a 54.1	30.0c 31.8	95.8a 96.2	82.1c 83.4	27.2¢ 27.9	71.1 c 71.1	14.9d 15.7
Unemployment rate (4) - 1966, Jan. 15 1965, Dec. 11	5.1 d 3.5	9.9e 7.5	4.5e 2.8	9.3e 6.8	2.1f 1.6	2.4 f 2.0	6.18 4.9

<sup>(1) &</sup>quot;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 Northest 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.

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.

(Estimates in thousands)

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.

SECTION SECTION	S.D.	1966	19	965	19	1963	
Table 4 Summary	(1)	Jan. 15	Dec.	Jan. 16	Dec.	Jan. 18	Dec.
Total employed Agriculture Non-agriculture	a d a	6,734 460 6,274	6,933 470 6,463	6,461 518 5,943	6,628 527 6,101	6,243 581 5,662	6,440 589 5,851
Employed, non-agriculture	a	6,274	6,463	5,943	6,101	5,662	5,851
Usually work 35 hours or more	а	5,689	5,843	5,386	5,544	5,166	5,348
At work 35 hours or more	b	5,272	5,434	5,004	5,119	4,838	5,016
At work less than 35 hours, or not at work Due to economic reasons (2) Due to other reasons (3)	c e c	417 67 350	409 62 347	382 66 316	425 57 368	328 62 266	332 71 261
Usually work less than 35 hours	С	585	620	557	557	496	503

<u>Table 5</u> Industry	S.D. (1)	Average Nov.1965 Dec. " Jan.1966	Average Oct.1965 Nov. " Dec. "	Average Nov.1964 Dec. " Jan.1965	Average Oct.1964 Nov." Dec."	Average Nov.1963 Dec. " Jan.1964	Average Oct.1963 Nov. " Dec. "
Total employed	а	6,869	6,960	6,599	6,685	6,397	6,512
Agriculture	d	484	542	543	584	597	626
Other primary industries	e	240	243	204	202	190	193
Manufacturing	d	1,641	1,635	1,660	1,676	1,573	1,592
Construction	е	473	500	414	437	375	412
Transportation and other utilities	d	603	617	598	601	579	592
Trade	d	1,153	1,177	1,118	1,132	1,119	1,127
Finance, insurance, real estate	e	298	291	270	258	262	250
Community, personal, other services	d	1,576	1,551	1,426	1,423	1,338	1,344
Public administration	e	401	404	366	372	364	376

Note: Statistics in Table 5 are based on the 1960 Stardard Industrial Classification, introduced with March 1965 data. Estimates by industry published previously to March 1965 were based on the 1948 Standard Industrial Classification. Estimates by industry from January 1961 to date based on the new classification are available on request.

Table 6 Class of worker, agriculture and non-agriculture, and sex Week ended January 15, 1966	Total		Paid workers	Own accou worke	nt	Employ	ers	Unpa fami worke	ly
Total employed	6,734	a	5,718 b	535	С	335	d	146	d
Agriculture	460	d	60 e	280	d	32	f	88	е
Non-agriculture	6,274	a	5,658 b	255	d	303	d	58	е
Men	4,696	a	3,866 b	461	С	307	d	62	е
Agriculture	412	d	54 e	273	d	31	£	54	e
Non-agriculture	4,284	a	3,812 b	188	d	276	d	*	g
Women	2,038	b	1,852 c	74	e	28	е	84	d
Agriculture	48	e	* £	*	g	*	g	34	е
Non-agriculture	1,990	c	1,846 c	67	e	27	f	50	е

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

(2) Economic reasons 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.

(3) 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.

\* Less than 10,000.

Note: The alphabetic symbol following 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 (Estimates in thousands)

Table 7 Unemployed		1966	1965		1964		1963
		Jan. 15	Dec.	Jan. 16	Dec.	Jan. 18	Dec.
Total unemployed		359	252	407	284	466	346
Without work and seeking work	d	320	232	382	270	428	326
Seeking full-time work	d	306	215	367	258	410	305
Seeking part-time work	f	14	17	15	12	18	21
On temporary layoff up to 30 days	f	39	20	25	14	38	20
Without work and seeking work	 d	320	232	382	270	428	326
Seeking under 1 month Seeking 1-3 months		111	92	127	104	126	121
		151	93	167	99	202	132
Seeking 4-6 months	e	34	22	44	33	54	35
Seeking more than 6 months		24	25	44	34	46	38

Table 8  Regional distributions  Week ended January 15, 1966	Canada	Atlantic region	Quebec	Ontario	Prairie region (2)	British Columbia (2)
Population 14 years of age and over	13,305	1,279	3,852	4,683	2,227	1,264
Men	6,593	635	1,898	2,306	1,127	627
Women	6,712	644	1,954	2,377	1,100	637
Labour force	7,093 a	600 b	2,030 b	2,609 b	1,188 b	666 c
Men	4,998 a	434 b	1,450 b	1,801 a	840 b	473 b
Women	2,095 b	166 c	580 c	808 c	348 c	193 c
Employed	6,734 a	537 b	1,903 b	2,523 b	1,146 b	625 c
Men	4,696 a	377 b	1,342 b	1,734 a	803 b	440 b
Women	2,038 b	160 c	561 c	789 c	343 c	185 c
Agriculture	460 d	24 e	88 f	136 e	193 d	19 f
Non-agriculture	6,274 a	513 c	1,815 b	2,387 b	953 c	606 c
Paid workers	5,718 b	461 c	1,655 c	2,188 b	863 c	551 c
Men	3,866 b	319 c	1,143 c	1,463 b	558 c	383 c
Women	1,852 c	142 d	512 c	725 c	305 d	168 d
Unemployed	359 d	63 e	127 e	86 e	42 e	41 e
Men	302 d	57 e	108 e	67 e	37 e	33 e
Women	57 e	* g	19 f	19 f	* g	* g
Not in labour force	6,212 a	679 b	1,822 b	2,074 b	1,039 b	598 c
Men	1,595 c	201 c	448 c	505 c	287 c	154 c
Women	4,617 a	478 b	1,374 b	1,569 b	752 b	444 c
Employed 1966, January 15	6,734 a	537 b	1,903 b	2,523 b	1,146 b 1,186 1,121 1,149 1,105 1,132	625 6
1965, December 11	6,933	574	1,945	2,581		647
1965, January 16	6,461	503	1,782	2,457		598
1964, December 12	6,628	537	1,847	2,487		608
1964, January 18	6,243	478	1,737	2,358		565
1963, December 14	6,440	514	1,793	2,426		575
Unemployed 1966, January 15 1965, December 11 1965, January 16 1964, December 12 1964, January 18 1963, December 14	359 d 252 407 284 466 346	63 e 44 62 40 70 48	127 e 97 159 104 174	86 e 60 98 76 120 89	42 e 29 48 33 55	41 e 22 40 31 47 40

<sup>(</sup>i) "S.D." = Standard deviation. For explanation, see "Reliability of Estimates", page 8.

<sup>(2)</sup> See "Introduction of new samples in Manitoba and British Columbia", page 8.

<sup>\*</sup> Less than 10,000.

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



#### Reliability of Estimates

#### (a) Sampling Error

The estimates in this report are based on a <u>sample</u> of households. Somewhat different figures might have been obtained if a complete census had been taken using the same questionnaires, enumerators, supervisors, processing, etc. as those actually used in the Labour Force Survey. This difference is called the sampling error of the estimates. In the design and processing of the Labour Force Survey extensive efforts have been made to minimize the sampling error. The sampling error (expressed as a per cent of the estimate it refers to) is not the same for all estimates; of two estimates the larger one will likely have a smaller per cent sampling 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 a smaller per cent sampling variability. Also, estimates relating to age and sex are usually more reliable than other estimates of comparable size.

#### (b) Non-sampling Errors

Errors, which are not related to sampling, may occur at almost every phase of a survey operation. Enumerators may misunderstand instructions, respondents may make errors in answering questions, the answers may be incorrectly entered on the questionnaires 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 a careful design of questionnaires, intensive training and supervision of enumerators and a thorough control of the processing operation. In general, the more personal and more subjective inquiries are subject to larger errors. Also, data referring to persons with less stable labour force status will have relatively large non-sampling errors.

#### (c) Alphabetic Indicators of Standard Deviation

The sampling error, as described under (a) is not known. A quantity, called the <u>standard deviation</u>, can however be estimated from sample data itself. The standard deviation of an estimate is a <u>statistical measure</u> of its sampling error. It also partially measures the effect of non-sampling errors, but does not reflect any systematic biases in the data. The chances 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 than twice the standard deviation and about 99 out of 100 that it would be less than 2 1/2 times as large.

The standard deviations of the estimates, expressed as a per cent of the estimates, are indicated by letters. The letter "a" indicates that the standard deviation is smaller

than 0.5% of the estimate, the letter "b" indicates that the standard deviation is between 0.6% and 1.0% of the estimate and so on as shown in the table below.

#### Alphabetic designation of per cent standard deviations

	The state of the s	
Alphabetic	indicator	Per cent standard deviation
. a		0.0% - 0.5%
ь		0.6% - 1.0%
С		1.1% - 2.5%
d		2.6% - 5.0%
е		5.1% - 10.0%
£		10.1% - 15.0%
g		15.1% -

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

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

A rough upper limit for the standard deviation of the difference (change) between two estimates referring to two months up to a year apart may also be indicated using the table above. For most characteristics published in this report the standard deviation of the difference between two estimates is likely to be somewhat smaller than the standard deviation of the two estimates or in the immediately preceding range.

For example, suppose that a hypothetical estimate in May and June was 513,000 and 625,000 respectively and the per cent standard deviation of both estimates was indicated by the letter "c", i.e. it was between 1.1% and 2.5%. The difference between the May and June estimates (112,000) would, therefore, have a standard deviation which would likely be smaller than 2.5% of 513,000, i.e. it would likely be smaller than 12,800.

#### (e) Current Estimates of Standard Deviations

Standard deviations are computed monthly for several estimates and month-to-month changes. These are available usually in a few weeks after the publication of this report and can be obtained on request. Beginning with 1966, an annual report on the standard deviations during the last year will be released.

### Introduction of new samples in Manitoba and British Columbia

New samples of improved design were brought into use for Manitoba and British Columbia in the January 1966 survey. December 1965 estimates obtained from both the old and new samples were compared. Had the new sample data been used for December 1965, the estimates would have been affected as follows:

Canada -- labour force - higher by 10,000; employed higher by 6,000; unemployed - higher by 4,000; persons not in labour force - lower by 10,000. Prairie region -- labour force - higher by 2,000; employed - higher by 3,000; unemployed - lower by 1,000; persons not in labour force - lower by 2,000.

British Columbia -- labour force - higher by 8,000; employed - higher by 3,000; unemployed - higher by 5,000; persons not in labour force - lower by 8,000.