Labour Force Quality Report

Canadian Labour Force Survey

February, 1974

Confidential Restricted Circulation

Household Surveys Development Staff
Labour Force Survey Division
Field Division

Statistics Canada Statistique Canada

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Comparisons of: a) Canadian and American Unemployment rates, and b) UIC Claimants and LFS Unemployed are presented in Appendix IV.

HIGHLIGHTS

A. SLIPPAGE

At the Canada level, the estimated slippage rate decreased from 5.2% in January to 5.0% in February.

1. - By province: All provinces exhibited positive slippage rates in February. From January to February, increases in the estimated slippage rates were noted in Prince Edward Island, Nova Scotia, Saskatchewan and British Columbia with the largest increases occurring in Prince Edward Island and Nova Scotia (a change of + 1.1% and + 1.0% respectively). The increase in slippage rate for British Columbia over the past month continues the upward trend that has been evident since September 1973. The remaining six provinces showed decreases in slippage between January and February 1974.

2. - By Age Group at the Canada level: All age groups exhibited positive slippage rates in February. The 45-64 age group was the only age group showing an increase from January in the estimated slippage rate (a change of + 0.5%). All other age groups showed decreases in slippage.

B. NON-RESPONSE

At the Canada level, the overall non-reponse rate for February was the same as that of January (6.0%). Only small changes were noted in the non-response components between January and February.

Compared with the rate of February, 1973 (7.2%), the overall non-response rate for February 1974 was lower. From February 1973 to February 1974, all the non-response components exhibited decreases in their rates.

For more detailed information on non-response rates, see Appendix III.

C. VARIANCE

At the Canada level the coefficients of variation of the estimated totals of the major Labour Force characteristics all increased from the January survey to the February survey. For Employed the coefficient of variation increased from 0.36% to 0.38%, for Unemployed the increase was from 2.29% to 2.39% and the increase for "In Labour Force" was from 0.31% to 0.33%.

For six provinces the coefficient of variation of Employed increased, these provinces being Newfoundland, Prince Edward Island, Nova Scotia, Quebec, Ontario and British Columbia. The coefficient of variation of Unemployed increased in the provinces of Prince Edward Island, Nova Scotia, Quebec, Ontario, Saskatchewan and British Columbia. The following table presents these results.

	Can.	Nfld.	PEI	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Employed-Jan.	0.36	2.57	3.83	1.48	2.14	0.83	0.57	1.55	1.42	1.05	1.10
Employed-Feb.	0.38	2.60	5.21	1.63	1.73	0.86	0.63	1.39	1.35	0.95	1.15
Unemp.-Jan.	2.29	6.63	10.30	7.82	11.18	4.12	4.52	10.22	11.84	10.43	6.44
Unemp.-Feb.	2.39	5.75	15.23	8.50	9.18	4.13	4.86	9.86	12.06	10.28	8.08

For more detailed information, see Appendix II.

D. REJECTED DOCUMENTS

The February reject rate at the Canada level for Labour Force items was 6.4%, decreasing 0.7% from the January rate of 7.1%.

At the regional level, 6 regions registered decreases ranging from 0.3% to 2.7% between the January and February results. Two regions had increases in their reject rate, Edmonton registered 7.4% up 0.4% from January, while the Toronto reject rate increased by 0.5% to 8.5% for February.

E. ENUMERATION COST

At the Canada level, the February Labour Force enumeration cost was tabulated at $2.38 per sample household, down two cents from the January enumeration cost of $2.40 per household. From January to February, the enumeration cost per household in the self-representing units remained the same at $2.14; however, in the non-self-representing units it decreased from $2.75 in January to $2.70 in February.

From January to February all regional offices except Montreal, Winnipeg and Vancouver recorded reductions in enumeration cost with the largest decreases occurring in Ottawa (a reduction of nine cents) and Halifax (a reduction of seven cents). It remained the same in the Vancouver Regional Office and increased slightly in the Montreal and Winnipeg Regional Offices.

Compared to February 1973, this year's February enumeration cost was higher. The cost increased from $2.18 in February 1973 to $2.38 in February 1974.

Non-Response Rates, Rejected Document Rates and Enumeration Cost per Household by Regional Office
September 1972 to February 1973 and September 1973 to February 1974

	1974		1973				1973		1972			
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.
Non-response												
Canada ..... %	6.0	6.0	6.6	5.2	5.7	6.5	7.2	7.3	6.3	5.2	5.1	6.1
St. John's ..... %	2.0	2.6	4.1	2.7	3.3	2.4	3.5	3.1	2.7	3.9	3.4	4.3
Halifax ..... %	5.9	7.2	7.6	5.5	5.5	6.1	7.0	6.4	7.1	5.7	5.5	6.1
Montreal ..... %	7.7	6.4	7.6	6.3	6.4	6.6	7.2	8.2	6.5	5.6	5.3	5.9
Ottawa ..... %	6.7	6.3	8.7	5.8	6.2	6.6	6.6	8.2	5.6	3.8	3.3	4.5
Toronto ..... %	6.0	5.6	6.4	4.5	4.9	6.7	6.6	6.3	6.5	4.3	4.4	5.5
Winnipeg ..... %	3.0	2.6	2.1	1.8	1.6	2.2	2.9	2.4	1.6	2.1	2.7	3.3
Edmonton ..... %	5.0	5.7	5.3	5.4	6.1	6.3	11.0	9.4	7.5	6.5	6.6	8.4
Vancouver ..... %	8.4	8.6	9.0	7.9	10.2	11.7	10.2	11.9	9.2	7.5	7.6	9.0
Rejected Documents (Regular Labour Force Items)												
Canada ..... %	6.4	7.1	8.2	7.1	7.8	8.5	6.4	7.3	6.0	8.1	9.9	8.4
St. John's ..... %	2.5	5.2	6.4	6.0	7.3	6.2	5.2	5.3	4.7	7.5	7.0	6.1
Halifax ..... %	6.6	8.5	8.1	7.4	7.1	7.9	6.4	7.2	6.5	7.9	6.7	7.6
Montreal ..... %	5.8	6.1	7.1	5.7	6.4	7.2	5.3	6.4	5.3	7.3	9.1	6.6
Ottawa ..... %	4.4	5.5	6.1	6.1	8.0	9.2	6.1	5.1	4.5	6.9	10.4	12.9
Toronto ..... %	8.5	8.0	9.4	7.4	8.8	9.9	7.1	8.5	7.4	10.9	13.9	10.1
Winnipeg ..... %	4.6	6.1	6.9	6.2	6.9	7.0	5.5	9.6	4.7	5.7	8.3	9.1
Edmonton ..... %	7.4	7.0	8.7	7.7	8.3	9.1	7.4	6.7	5.8	7.5	10.3	7.6
Vancouver ..... %	7.2	8.0	10.7	9.9	10.0	11.0	7.6	7.8	7.0	8.2	11.2	8.9
Enumeration Cost per Household												
Canada ..... $	2.38	2.40	2.32	2.41	2.52	2.46	2.18	2.20	2.20	2.15	2.10	2.08
St. John's ..... $	2.75	2.78	2.70	2.75	2.89	2.71	2.47	2.35	2.42	2.42	2.35	2.27
Halifax ..... $	2.24	2.31	2.18	2.29	2.29	2.29	1.92	1.90	1.86	1.80	1.75	1.77
Montreal ..... $	2.53	2.52	2.37	2.58	2.70	2.66	2.38	2.42	2.47	2.28	2.27	2.29
Ottawa ..... $	2.57	2.66	2.44	2.53	2.66	2.68	2.40	2.20	2.35	2.38	2.26	2.29
Toronto ..... $	2.39	2.42	2.43	2.47	2.67	2.60	2.31	2.48	2.43	2.40	2.29	2.26
Winnipeg ..... $	2.43	2.42	2.40	2.39	2.48	2.40	2.21	2.22	2.21	2.24	2.16	2.16
Edmonton ..... $	2.21	2.24	2.11	2.22	2.29	2.24	1.91	1.93	1.89	1.85	1.88	1.83
Vancouver ..... $	2.19	2.19	2.16	2.19	2.37	2.20	1.99	1.98	1.96	1.99	1.97	1.89

	Month-to-month change								Year-to-year change			
	1974	Dec. 1973 to Jan. 1974	1973			Dec. 1972 to Jan. 1973	1972		Feb. 1973 to Feb. 1974	Jan. 1973 to Jan. 1974	Dec. 1972 to Dec. 1973	Nov. 1972 to Nov. 1973
	Jan. to Feb.		Nov. to Dec.	Oct. to Nov.	Jan. to Feb.		Nov. to Dec.	Oct. to Nov.				
Non-response												
Canada ..... %	—	− 0.6	+ 1.4	− 0.5	− 0.1	+ 1.0	+ 1.1	+ 0.1	− 1.2	− 1.3	+ 0.3	—
St. John's ..... %	− 0.6	− 1.5	+ 1.4	− 0.6	+ 0.4	+ 0.4	− 1.2	+ 0.5	− 1.5	− 0.5	+ 1.4	− 1.2
Halifax ..... %	− 1.3	− 0.4	+ 2.1	—	+ 0.6	− 0.7	+ 1.4	+ 0.2	− 1.1	+ 0.8	+ 0.5	− 0.2
Montreal ..... %	+ 1.3	− 1.2	+ 1.3	− 0.1	− 1.0	+ 1.7	+ 0.9	+ 0.3	+ 0.5	− 1.8	+ 1.1	+ 0.7
Ottawa ..... %	+ 0.4	− 2.4	+ 2.9	− 0.4	− 1.6	+ 2.6	+ 1.8	+ 0.5	+ 0.1	− 1.9	+ 3.1	+ 2.0
Toronto ..... %	+ 0.4	− 0.8	+ 1.9	− 0.4	+ 0.3	− 0.2	+ 2.2	− 0.1	− 0.6	− 0.7	− 0.1	+ 0.2
Winnipeg ..... %	+ 0.4	+ 0.5	+ 0.3	+ 0.2	+ 0.5	+ 0.8	− 0.5	− 0.6	+ 0.1	+ 0.2	+ 0.5	− 0.3
Edmonton ..... %	− 0.7	+ 0.4	− 0.1	− 0.7	+ 1.6	+ 1.9	+ 1.0	− 0.1	− 6.0	− 3.7	− 2.2	− 1.1
Vancouver ..... %	− 0.2	− 0.4	+ 1.1	− 2.3	− 1.7	+ 2.7	+ 1.7	− 0.1	− 1.8	− 3.3	− 0.2	+ 0.4
Rejected Documents (Regular Labour Force Items)												
Canada ..... %	− 0.7	− 1.1	+ 1.1	− 0.7	− 0.9	+ 1.3	− 2.1	− 1.8	—	− 0.2	+ 2.2	− 1.0
St. John's ..... %	− 2.7	− 1.2	+ 0.4	− 1.3	− 0.1	+ 0.6	− 2.8	+ 0.5	− 2.7	− 0.1	+ 1.7	− 1.5
Halifax ..... %	− 1.9	+ 0.4	+ 0.7	+ 0.3	− 0.8	+ 0.7	− 1.4	+ 1.2	+ 0.2	+ 1.3	+ 1.6	− 0.5
Montreal ..... %	− 0.3	− 1.0	+ 1.4	− 0.7	− 1.1	+ 1.1	− 2.0	− 1.8	+ 0.5	− 0.3	+ 1.8	− 1.6
Ottawa ..... %	− 1.1	− 0.6	—	− 1.9	+ 1.0	+ 0.6	− 2.4	− 3.5	− 1.7	+ 0.4	+ 1.6	− 0.8
Toronto ..... %	+ 0.5	− 1.4	+ 2.0	− 1.4	− 1.4	+ 1.1	− 3.5	− 3.0	+ 1.4	− 0.5	+ 2.0	− 3.5
Winnipeg ..... %	− 1.5	− 0.8	+ 0.7	− 0.7	− 4.1	+ 4.9	− 1.0	− 2.6	− 0.9	− 3.5	+ 2.2	+ 0.5
Edmonton ..... %	+ 0.4	− 1.7	+ 1.0	− 0.6	+ 0.7	+ 0.9	− 1.7	− 2.8	—	+ 0.3	+ 2.9	+ 0.2
Vancouver ..... %	− 0.8	− 2.7	+ 0.8	− 0.1	− 0.2	+ 0.8	− 1.2	− 3.0	− 0.4	+ 0.2	+ 3.7	+ 1.7
Enumeration Cost per Household												
Canada ..... $	− 0.02	+ 0.08	− 0.09	− 0.11	− 0.02	—	+ 0.05	+ 0.05	+ 0.20	+ 0.20	+ 0.12	+ 0.26
St. John's ..... $	− 0.03	+ 0.08	− 0.05	− 0.14	+ 0.12	− 0.07	—	+ 0.07	+ 0.28	+ 0.43	+ 0.28	+ 0.33
Halifax ..... $	− 0.07	+ 0.13	− 0.11	—	+ 0.02	+ 0.04	+ 0.06	+ 0.05	+ 0.32	+ 0.41	+ 0.32	+ 0.49
Montreal ..... $	+ 0.01	+ 0.15	− 0.21	− 0.12	− 0.04	− 0.05	+ 0.19	+ 0.01	+ 0.15	+ 0.10	− 0.10	+ 0.30
Ottawa ..... $	− 0.09	+ 0.22	− 0.09	− 0.13	+ 0.20	− 0.15	− 0.03	+ 0.12	+ 0.17	+ 0.46	+ 0.09	+ 0.15
Toronto ..... $	− 0.03	− 0.01	− 0.04	− 0.20	− 0.17	+ 0.05	+ 0.03	+ 0.11	+ 0.08	− 0.06	—	+ 0.07
Winnipeg ..... $	+ 0.01	+ 0.02	+ 0.01	− 0.09	− 0.01	+ 0.01	− 0.03	+ 0.08	+ 0.22	+ 0.20	+ 0.19	+ 0.15
Edmonton ..... $	− 0.03	+ 0.13	− 0.11	− 0.07	− 0.02	+ 0.04	+ 0.04	− 0.03	+ 0.30	+ 0.31	+ 0.22	+ 0.37
Vancouver ..... $	—	+ 0.03	− 0.03	− 0.18	+ 0.01	+ 0.02	− 0.03	+ 0.0?	+ 0.20	+ 0.21	+ 0.20	+ 0.20

NOTE: Slippage rates have been deleted temporarily from this table as historical rates are not yet available on the revised basis. However, a table is given on next page giving slippage rates for January 1974 and February 1974 calculated on population projections based on 1971 Census.

Slippage Rates[1], Canada by Age and Provincial Totals

January and February 1974

	Feb. 1974	Jan. 1974	Jan. to Feb. Change
Canada	5.0	5.2	− 0.2
14-19 years	4.8	4.9	− 0.1
20-24 years	7.2	8.5	− 1.3
25-44 years	4.7	5.1	− 0.4
45-64 years	4.4	3.9	+ 0.5
65 and over	5.0	5.3	− 0.3

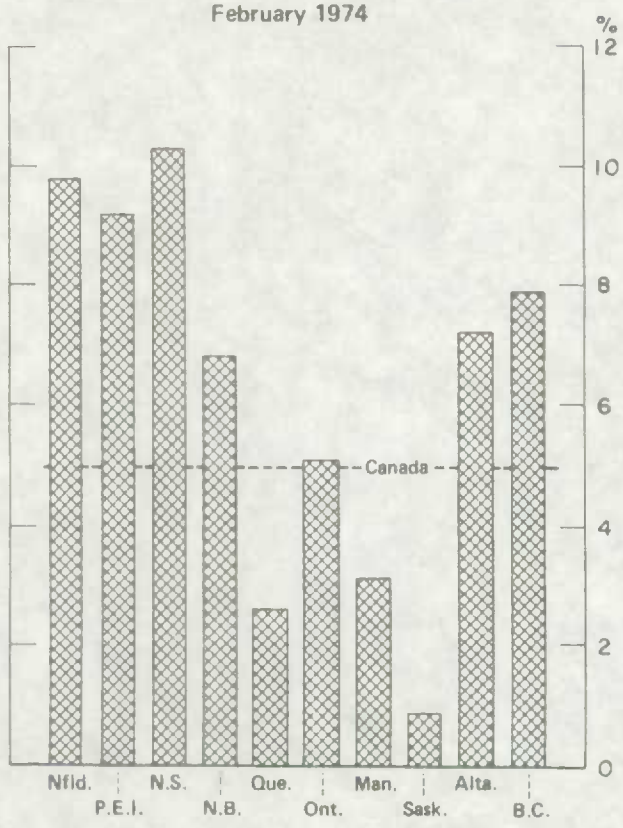
	Feb. 1974	Jan. 1974	Jan. to Feb. Change
Nfld.	9.8	10.3	− 0.5
P.E.I.	9.2	8.1	+ 1.1
N.S.	10.3	9.3	+ 1.0
N.B.	6.8	8.4	− 1.6
Que.	2.6	3.4	− 0.8
Ont.	5.1	5.2	− 0.1
Man.	3.1	3.7	− 0.6
Sask.	0.9	0.3	+ 0.6
Alta.	7.2	7.6	− 0.4
B.C.	7.9	7.1	+ 0.8

Slippage Rates by Age Groups at Canada Level

February 1974

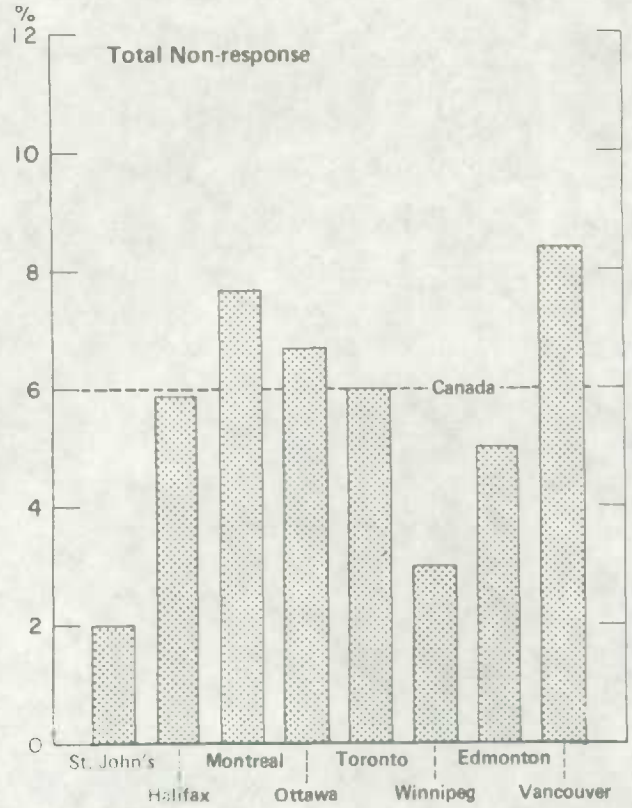
Slippage Rates by Province

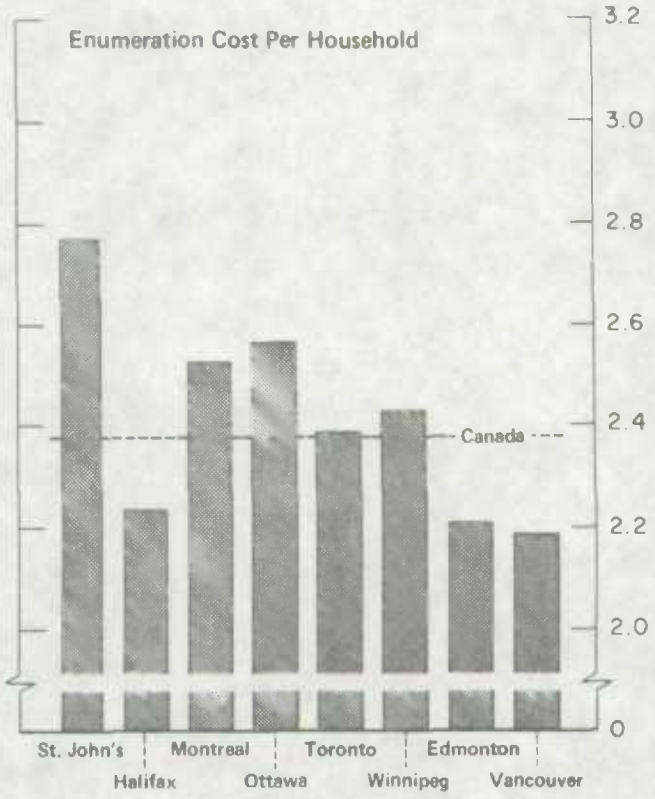
February 1974

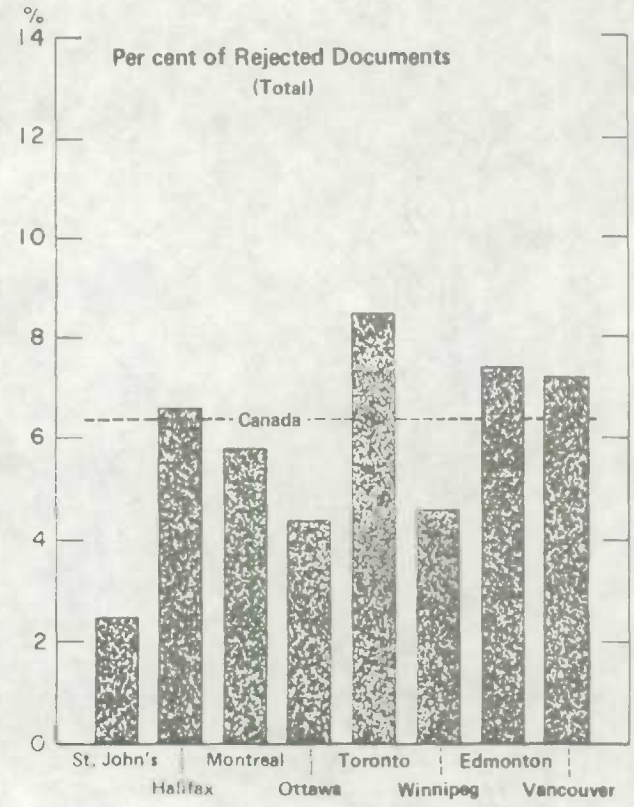


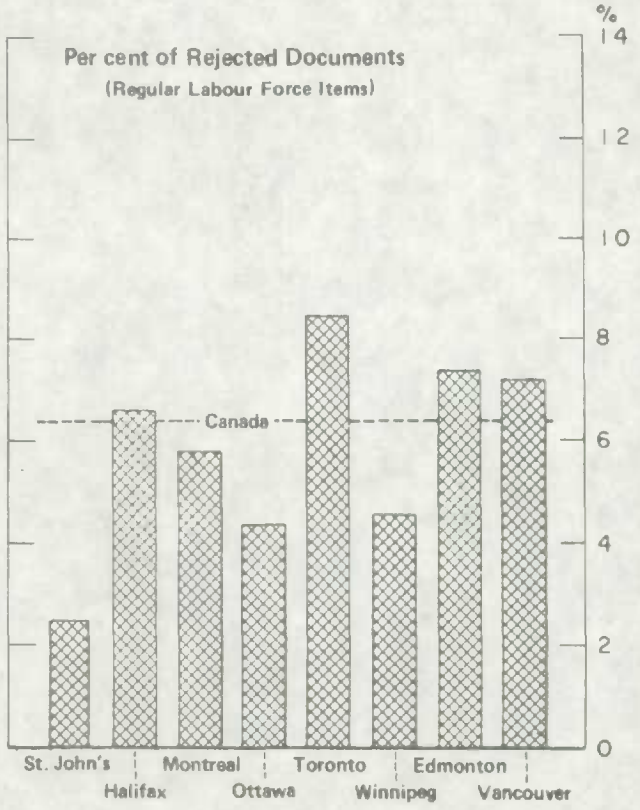
(1) The Above Rates are Calculated on Population Projections Based on 1971 Census.

Non-response Rates, Enumeration Cost and Rejected Documents by Regional Office
February 1974



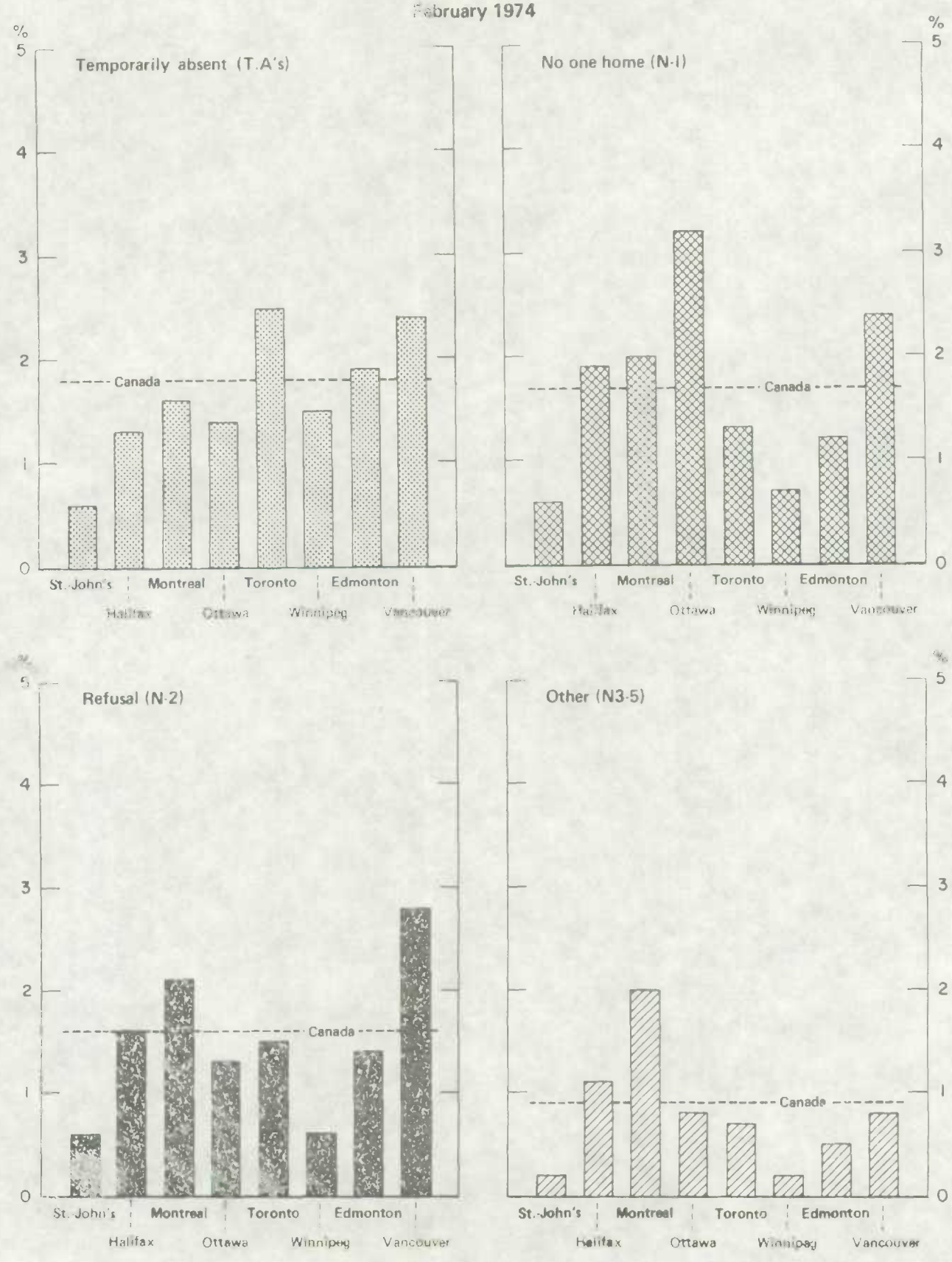






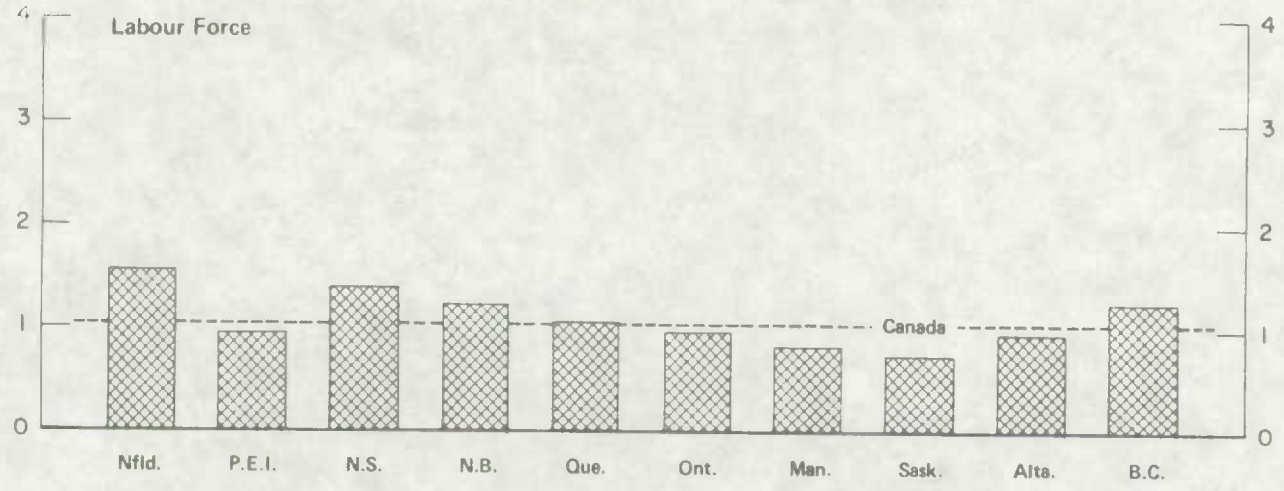
Non-response Rates, by Component

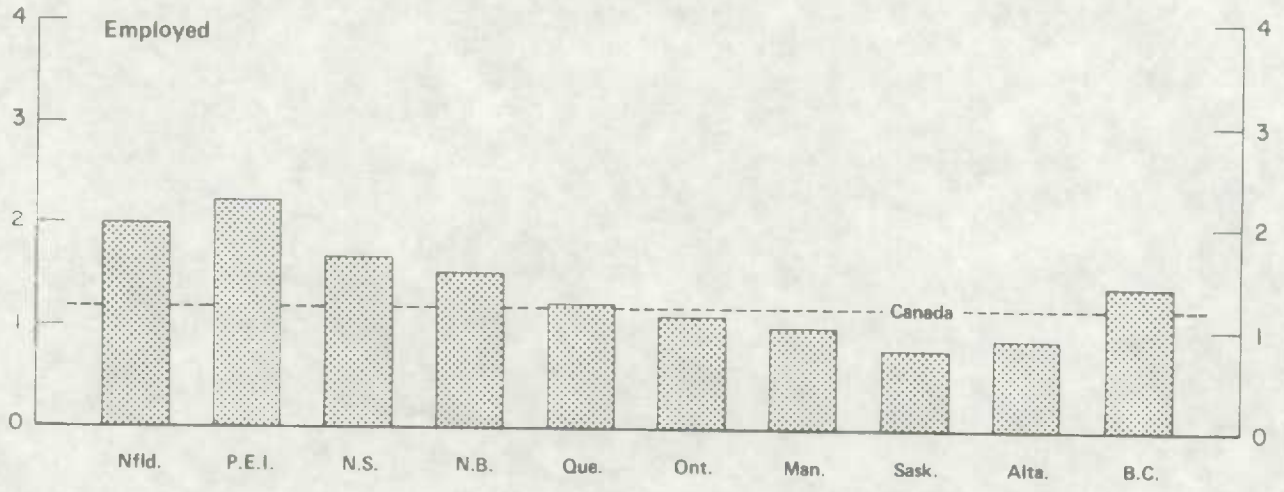
February 1974

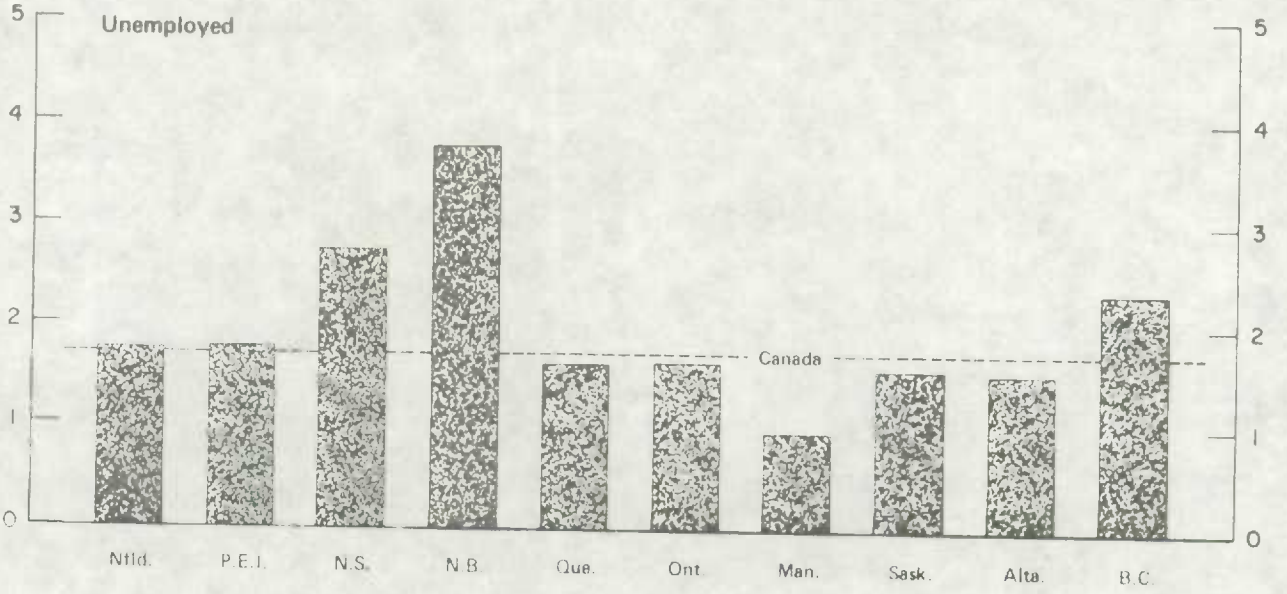


Binomial Factors for the Labour Force, Employed and Unemployed,
Canada and the Provinces

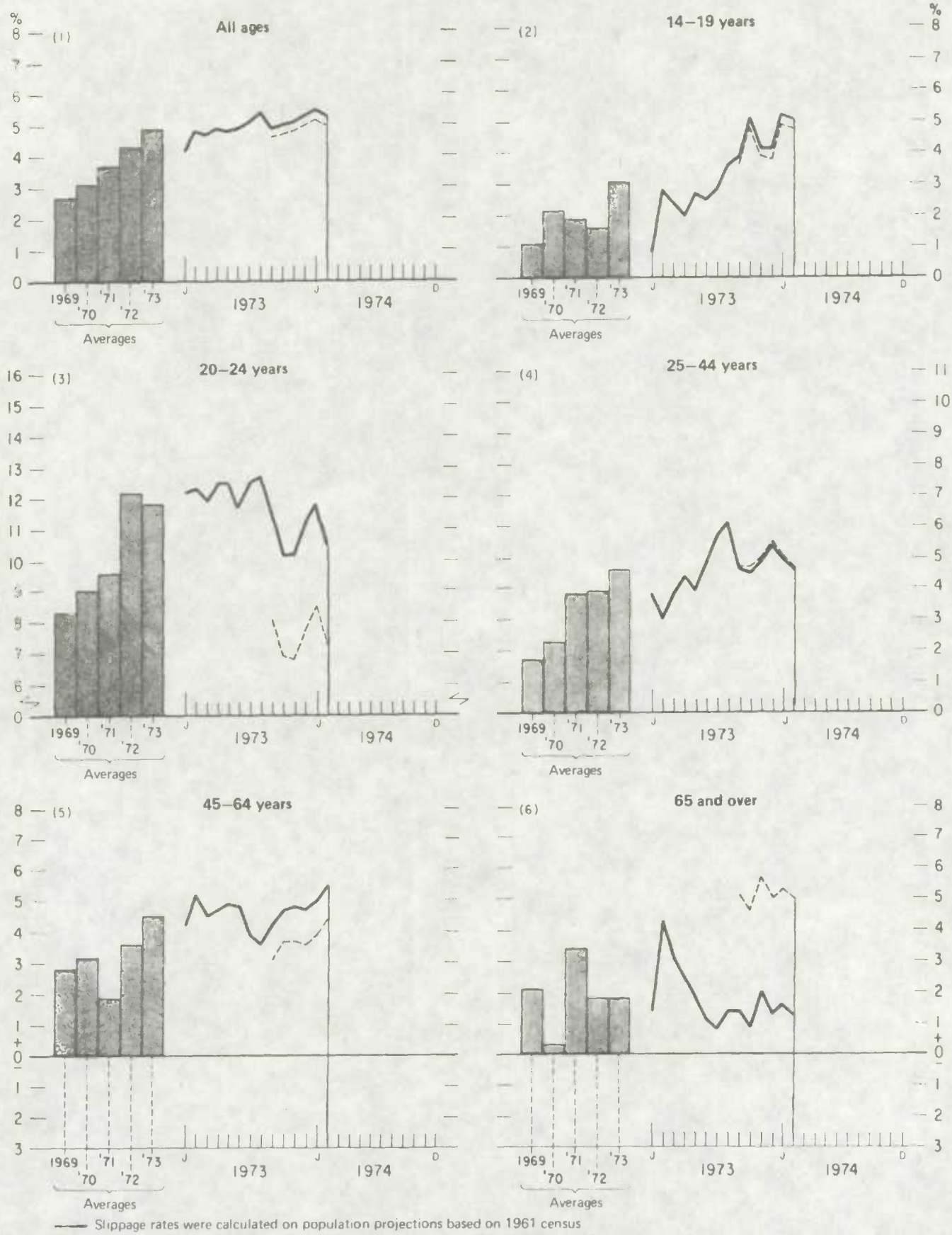
February 1974







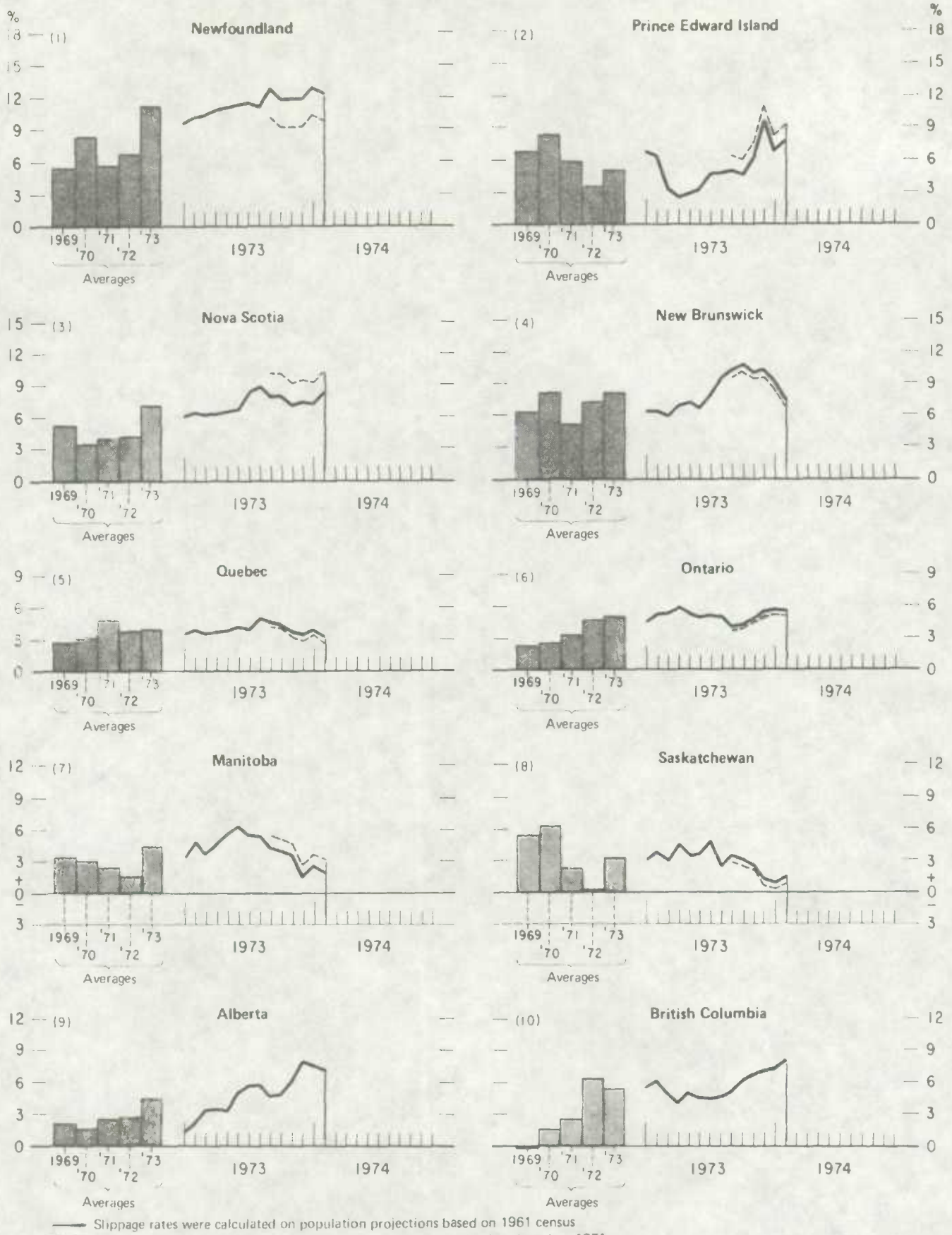
Slippage by Age Group at the Canada Level



Slippage rates were calculated on population projections based on 1961 census

Slippage rates were calculated on preliminary population projections based on 1971 census

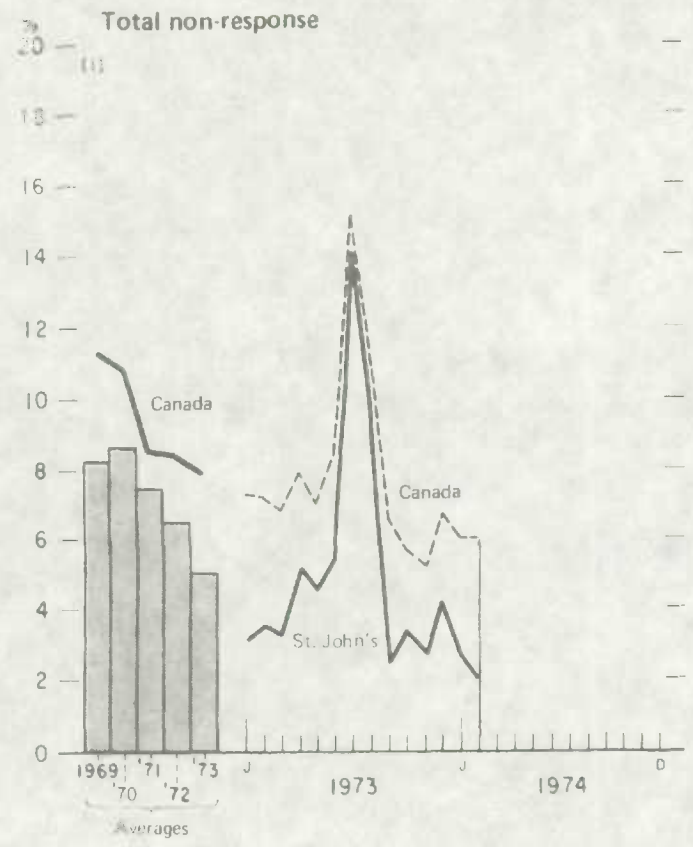
Slippage by Province

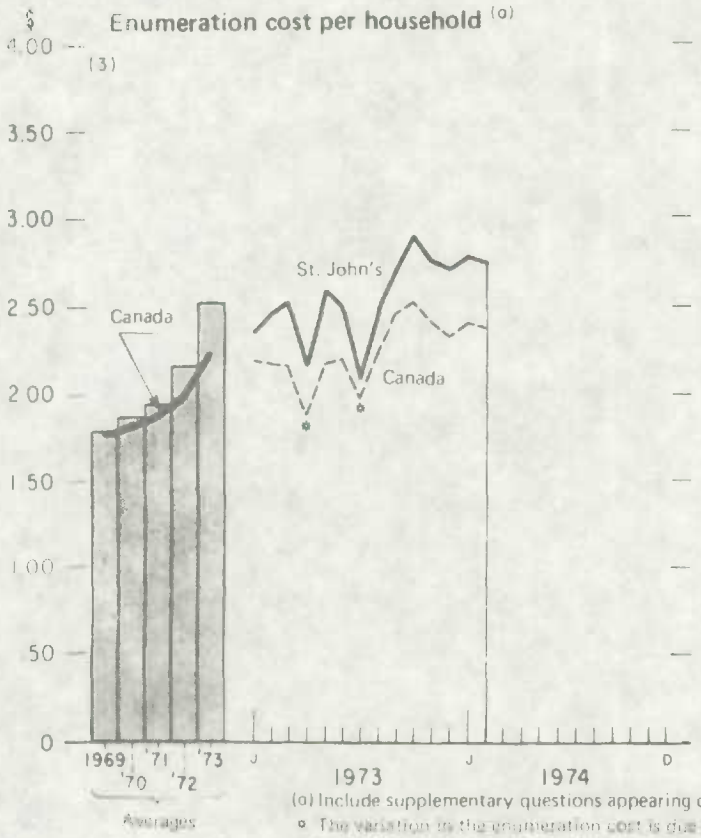


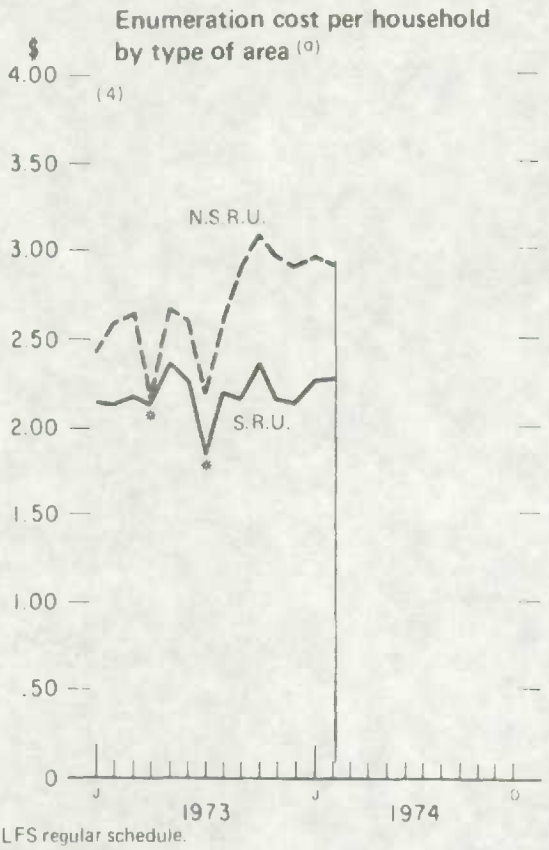
Slippage rates were calculated on population projections based on 1961 census

Slippage rates were calculated on preliminary population projections based on 1971 census

St. John's Regional Office





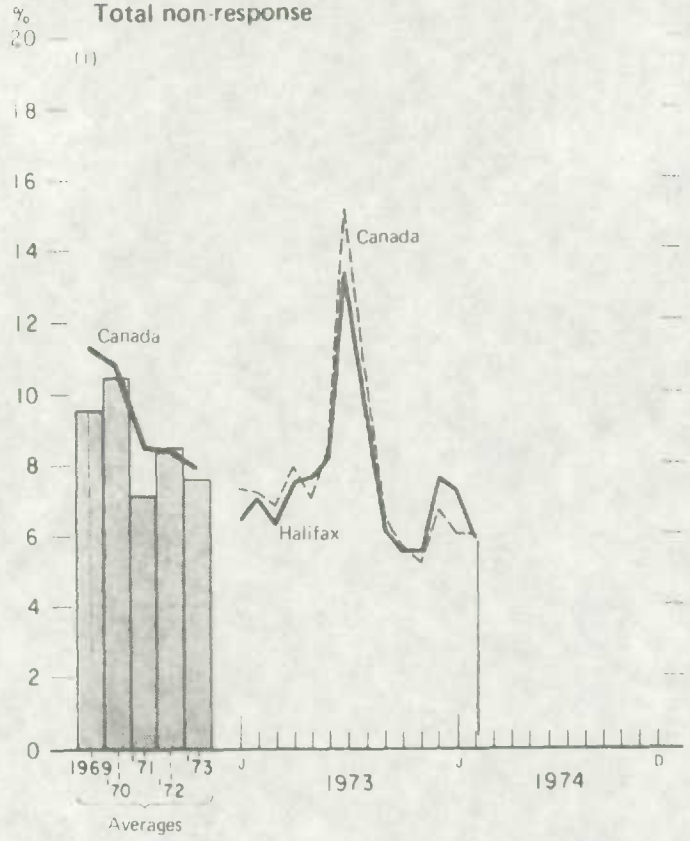


(a) Include supplementary questions appearing on the LFS regular schedule.

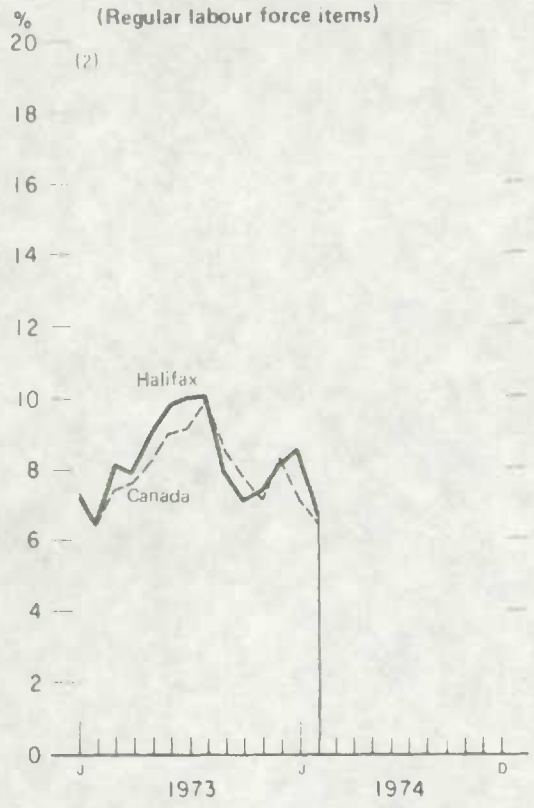
° The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Halifax Regional Office

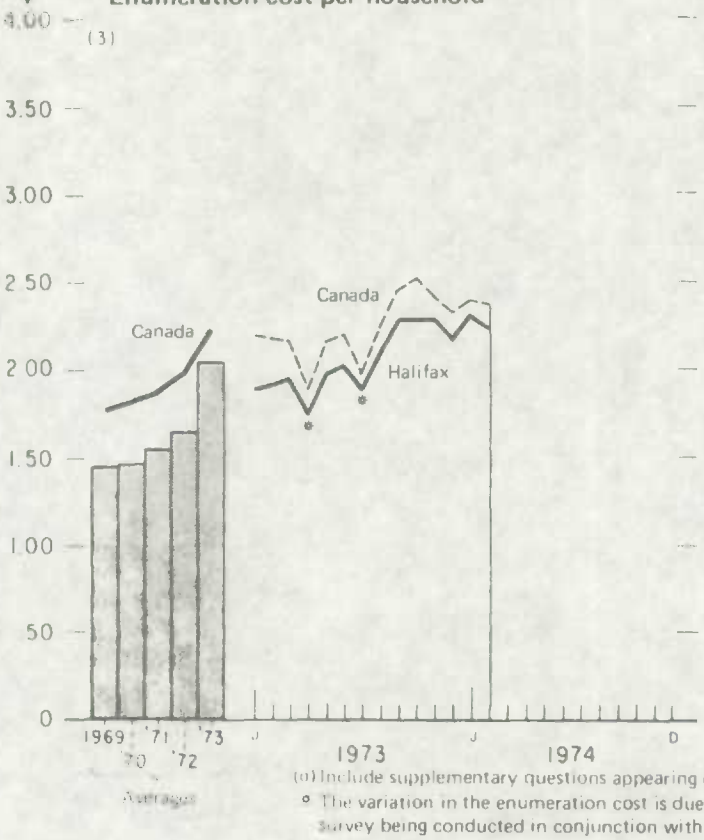
Total non-response



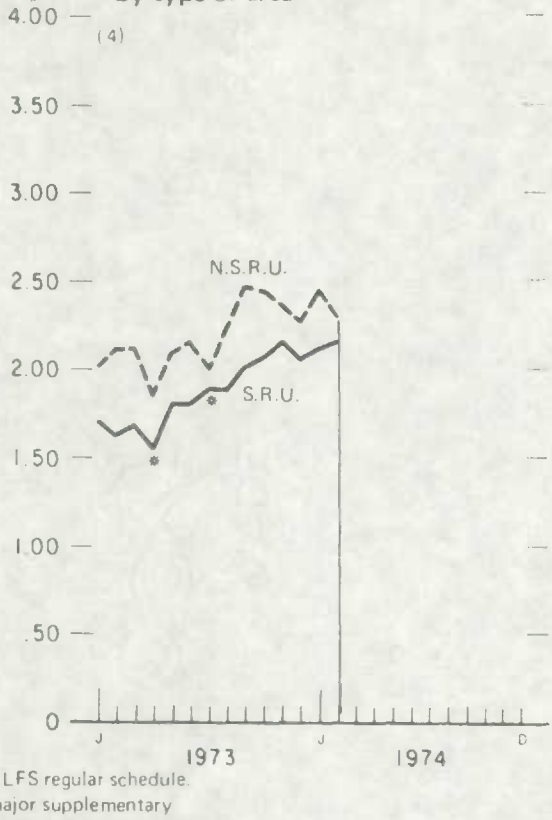
Per cent of rejected documents (Regular labour force items)



Enumeration cost per household [o]



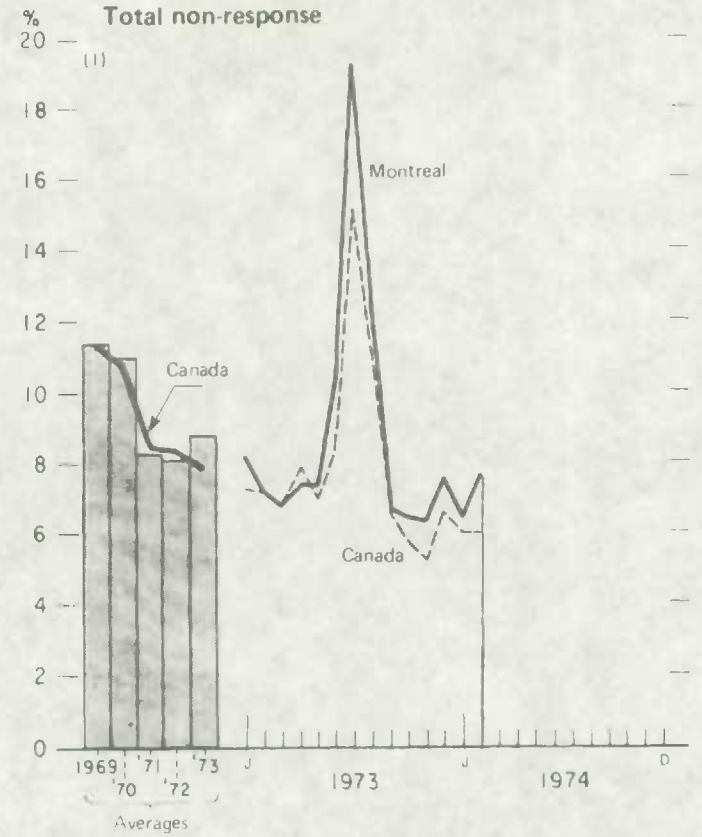
Enumeration cost per household by type of area [o]

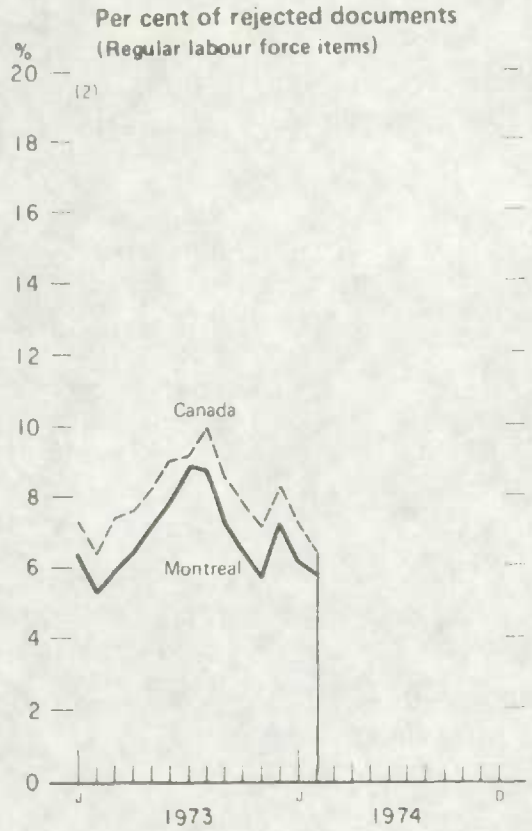


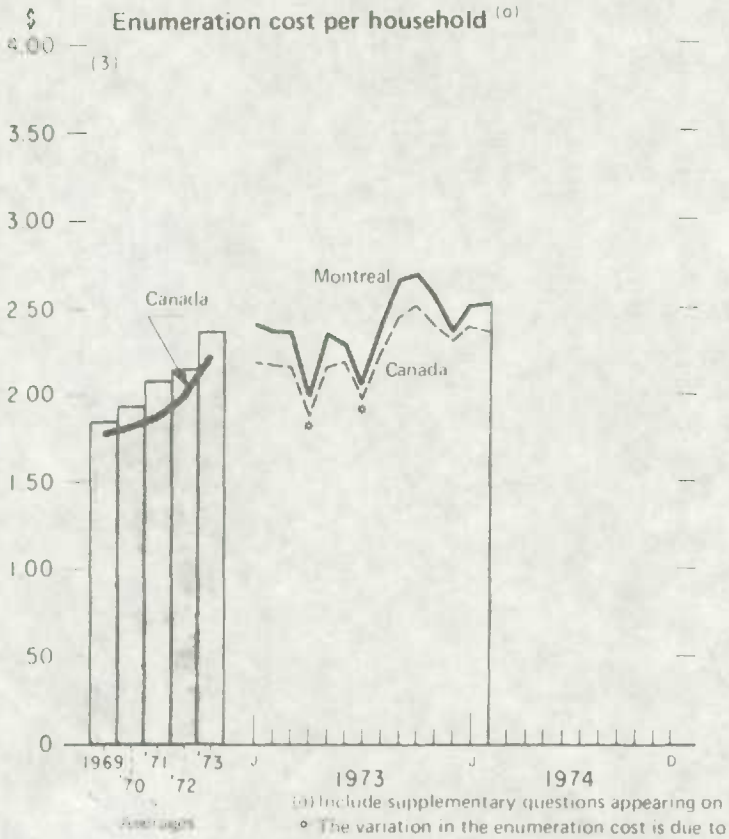
(o) Include supplementary questions appearing on the LFS regular schedule.

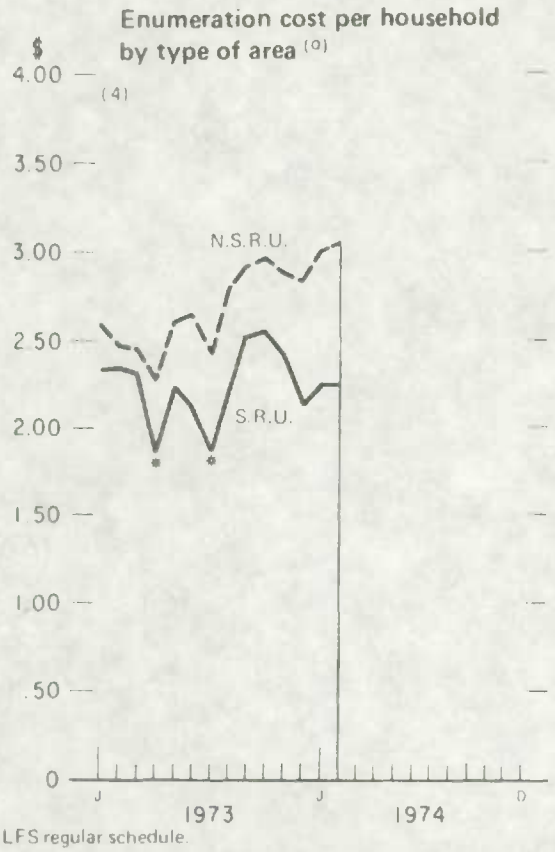
° The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey

Montreal Regional Office







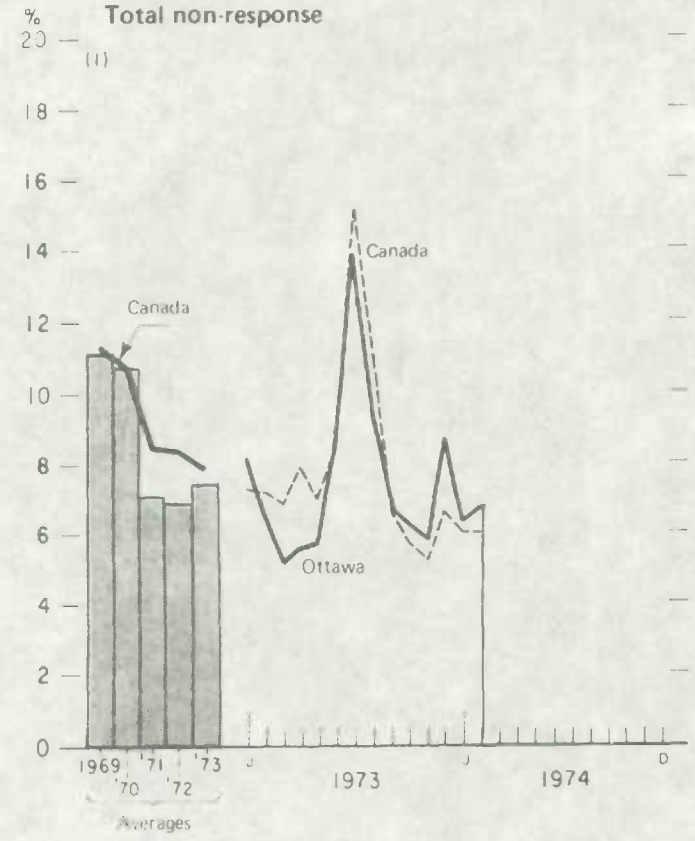


(a) Include supplementary questions appearing on the LFS regular schedule.

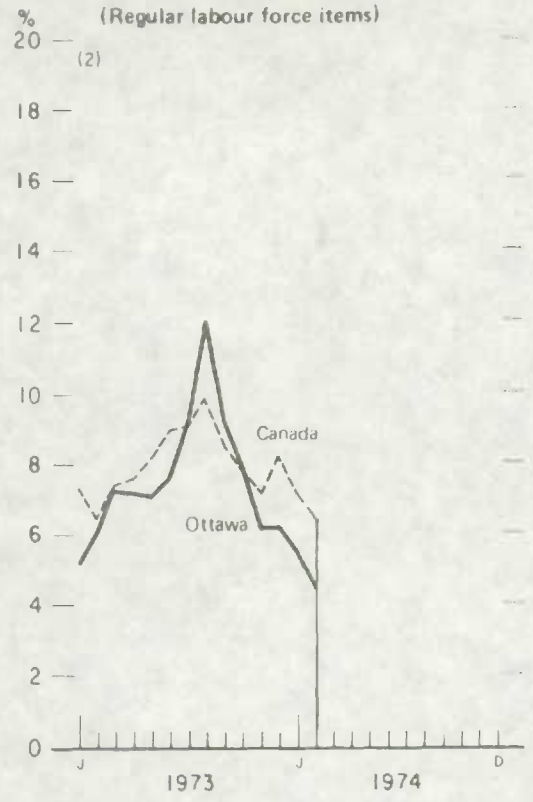
° The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Ottawa Regional Office

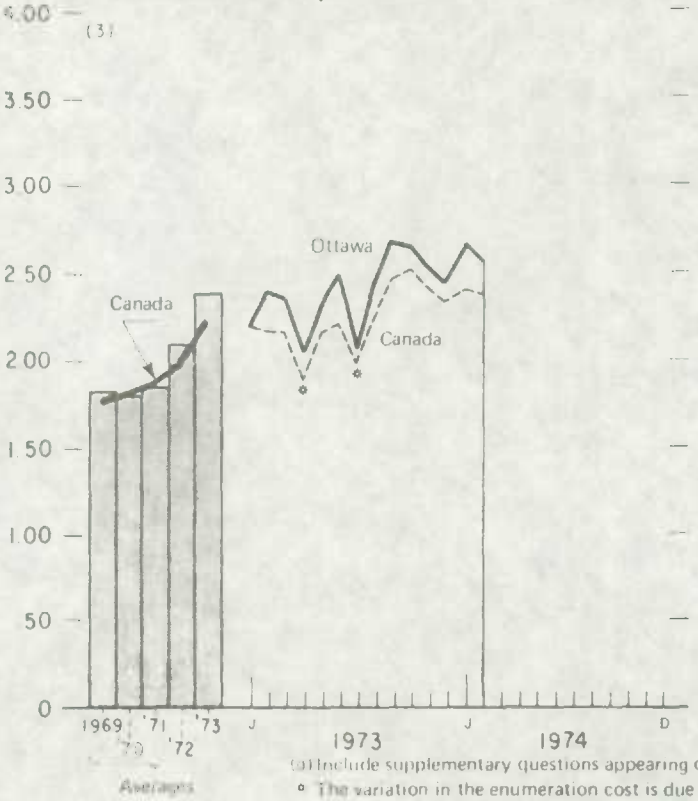
Total non-response



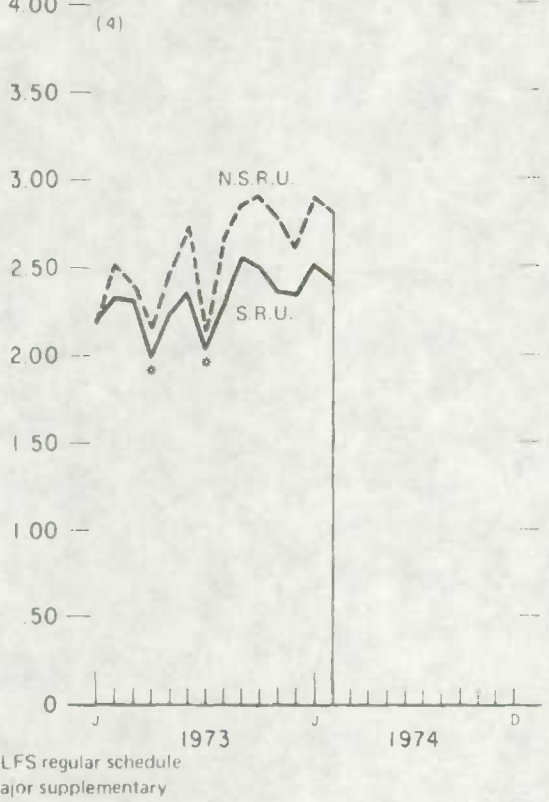
Per cent of rejected documents (Regular labour force items)



Enumeration cost per household (a)



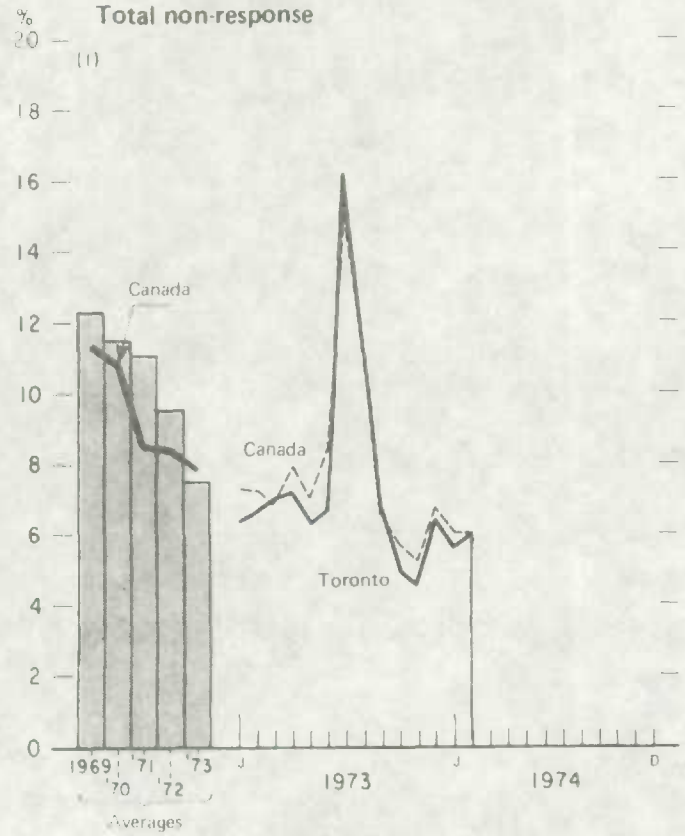
Enumeration cost per household by type of area (a)

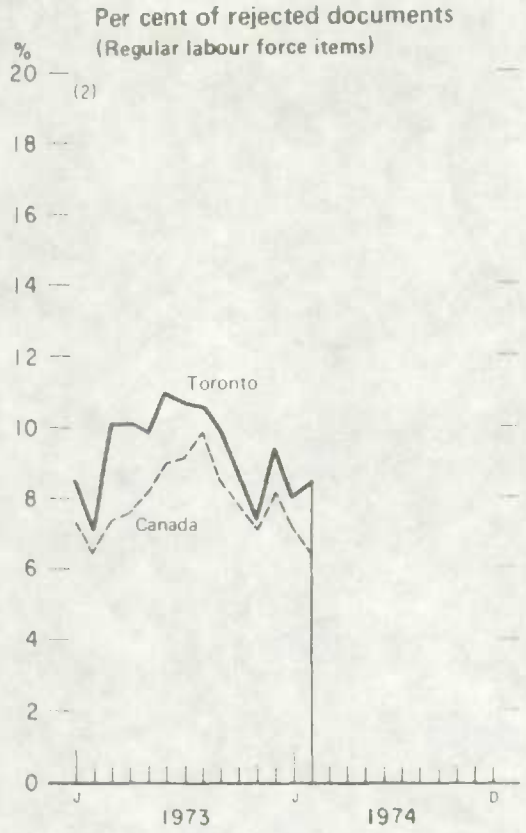


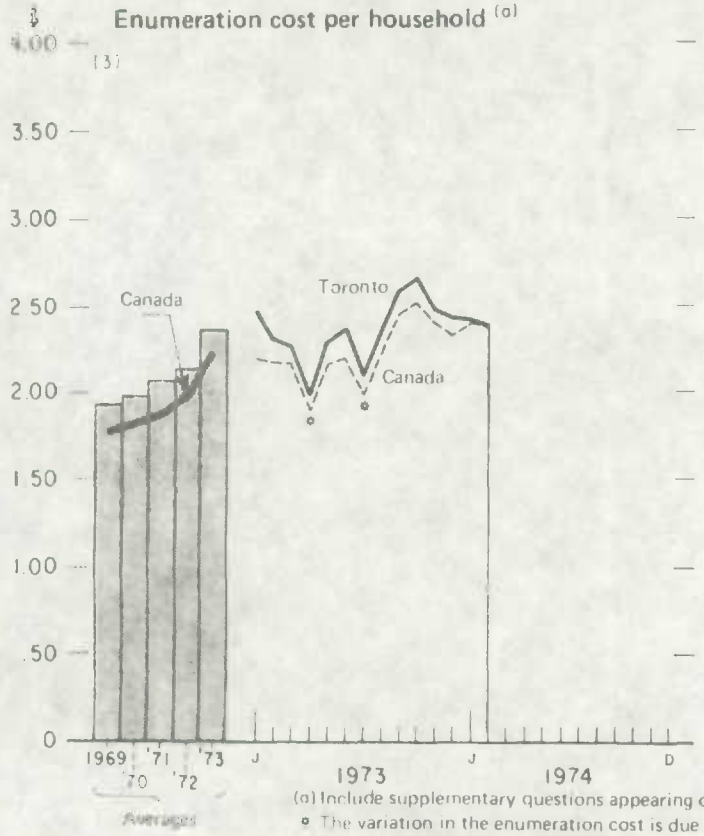
(a) Include supplementary questions appearing on the LFS regular schedule.

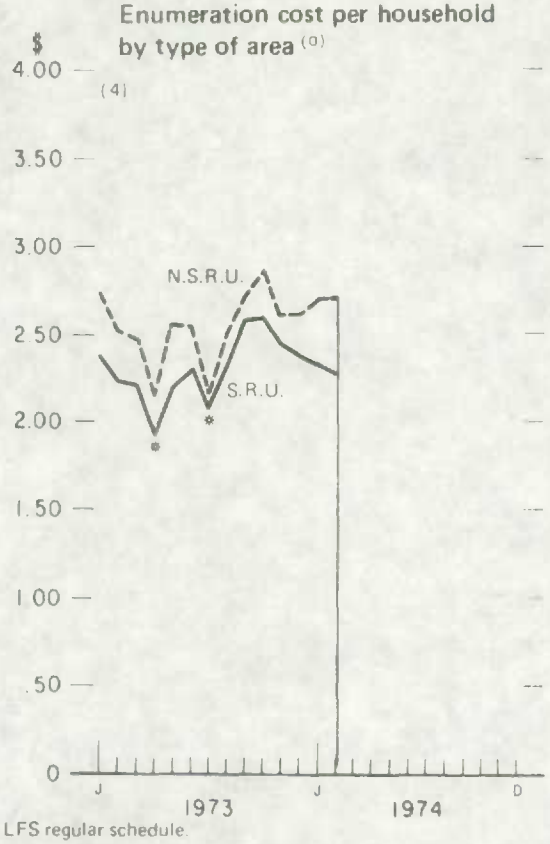
° The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Toronto Regional Office







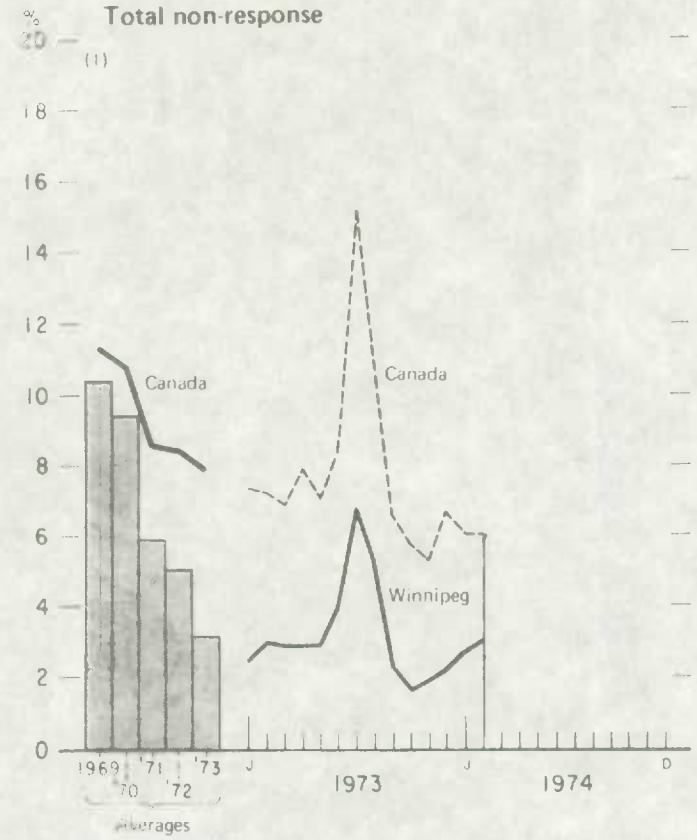


(a) Include supplementary questions appearing on the LFS regular schedule.

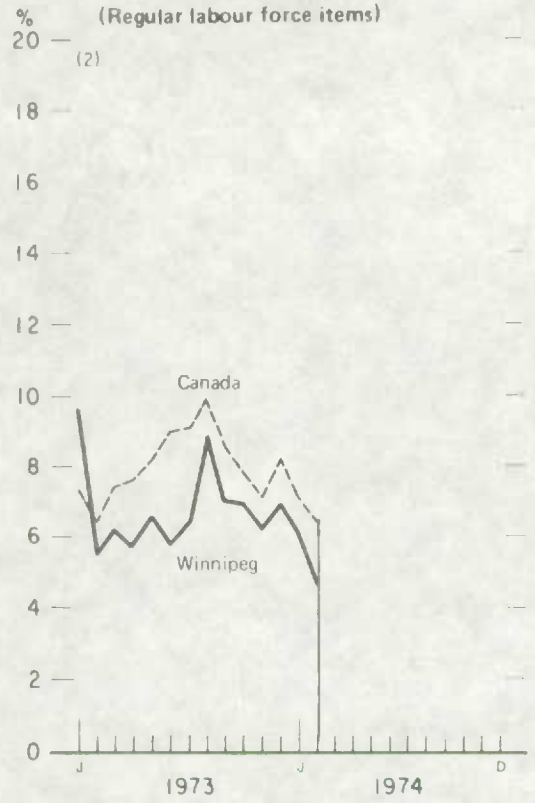
* The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Winnipeg Regional Office

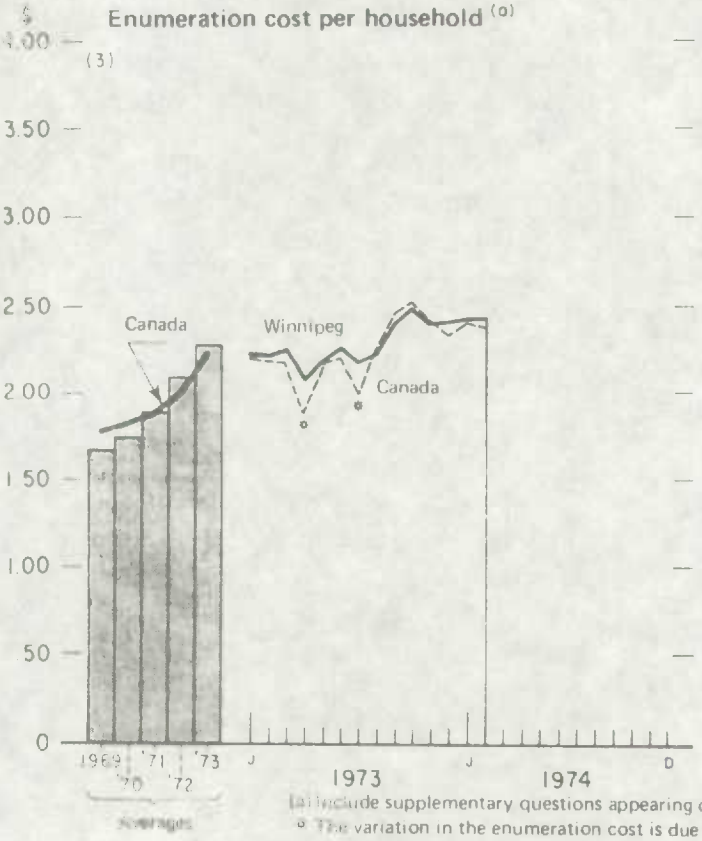
Total non-response



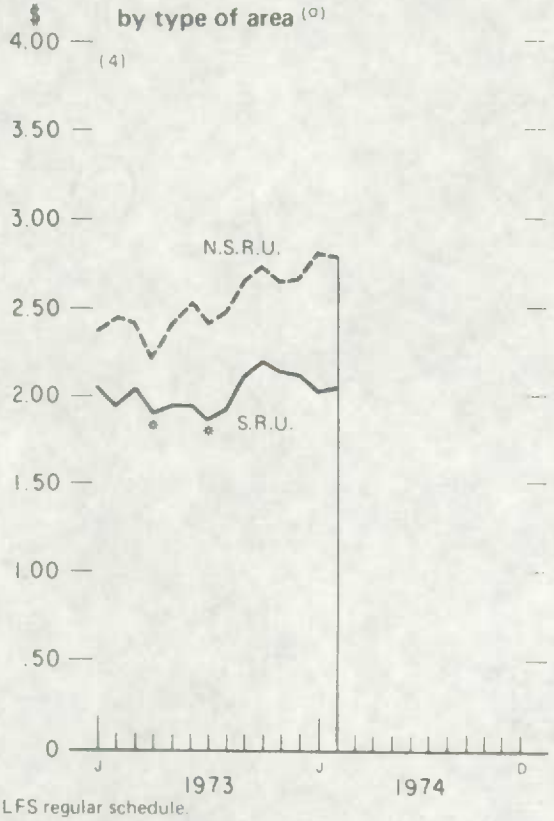
Per cent of rejected documents (Regular labour force items)



Enumeration cost per household [a]



Enumeration cost per household by type of area [a]

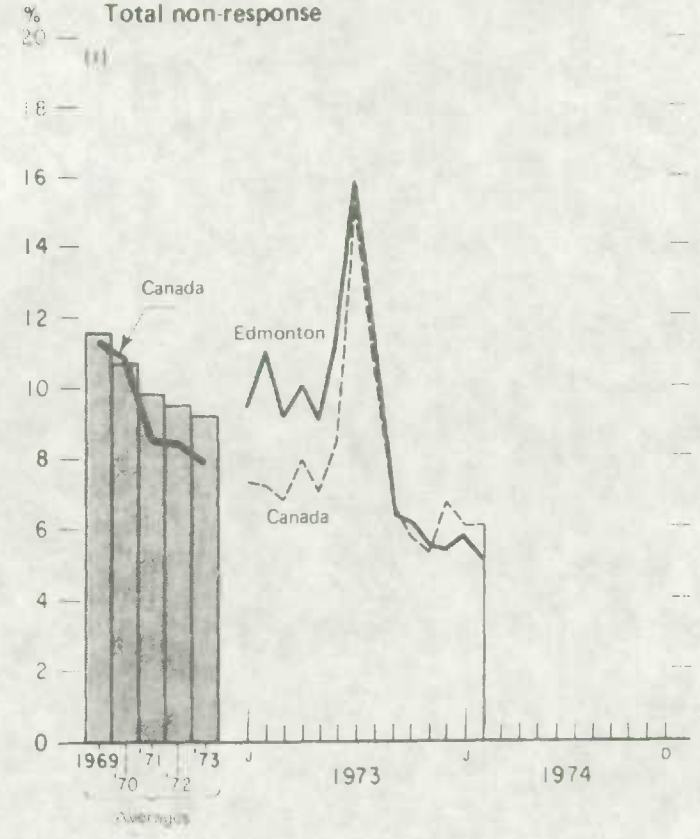


[a] Include supplementary questions appearing on the LFS regular schedule.

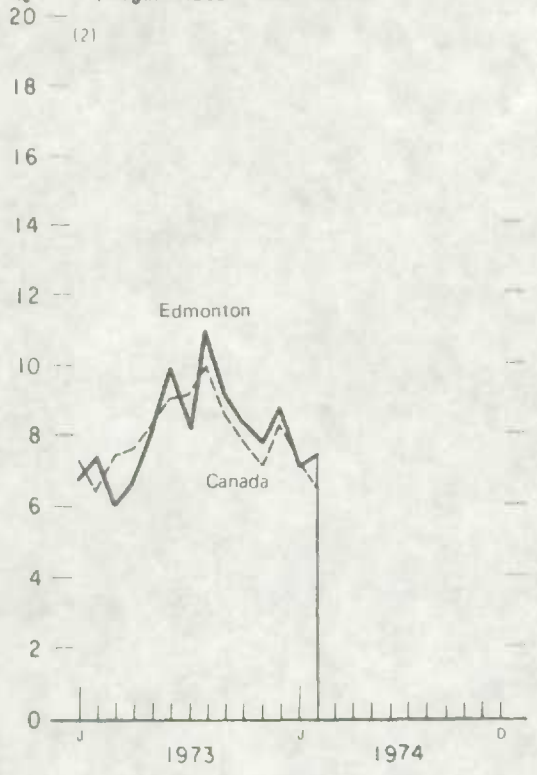
° The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Edmonton Regional Office

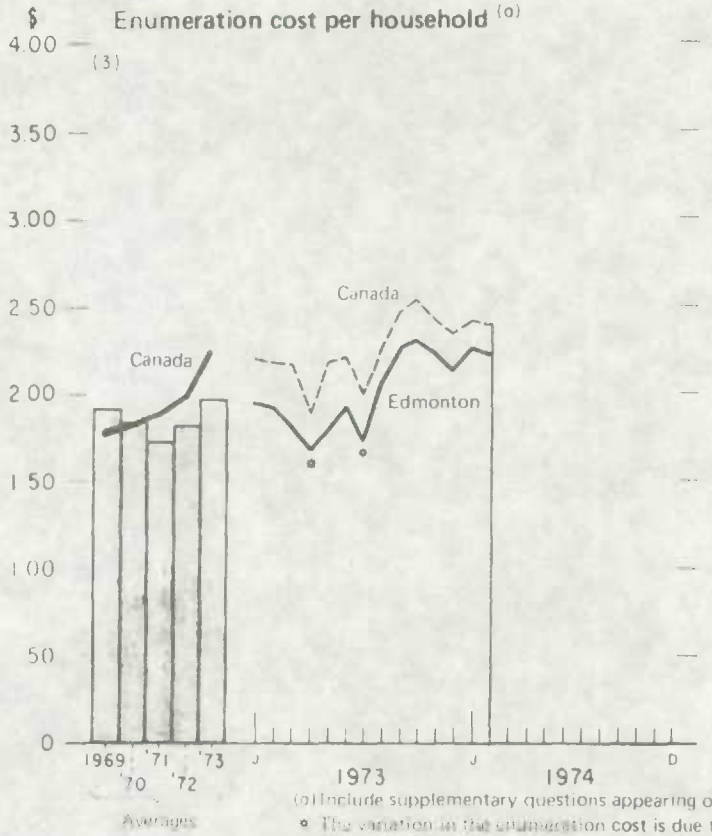
Total non-response



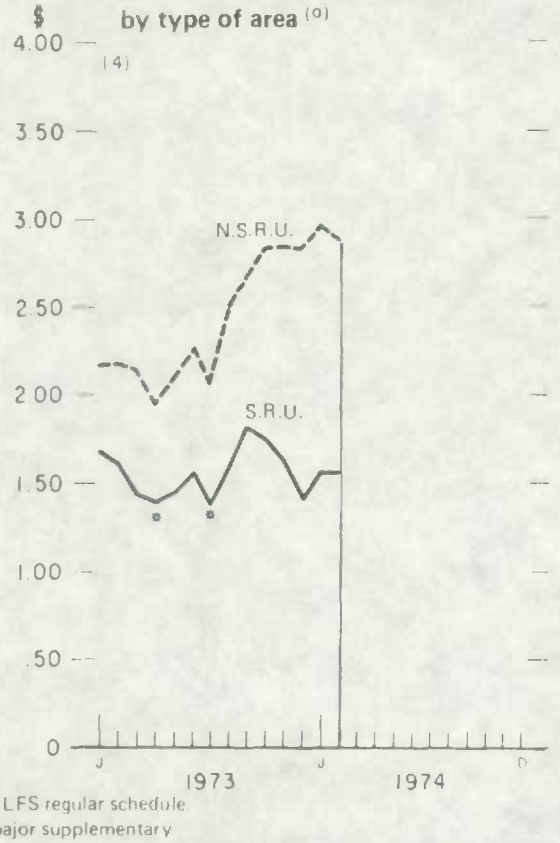
Per cent of rejected documents
(Regular labour force items)



Enumeration cost per household [o]



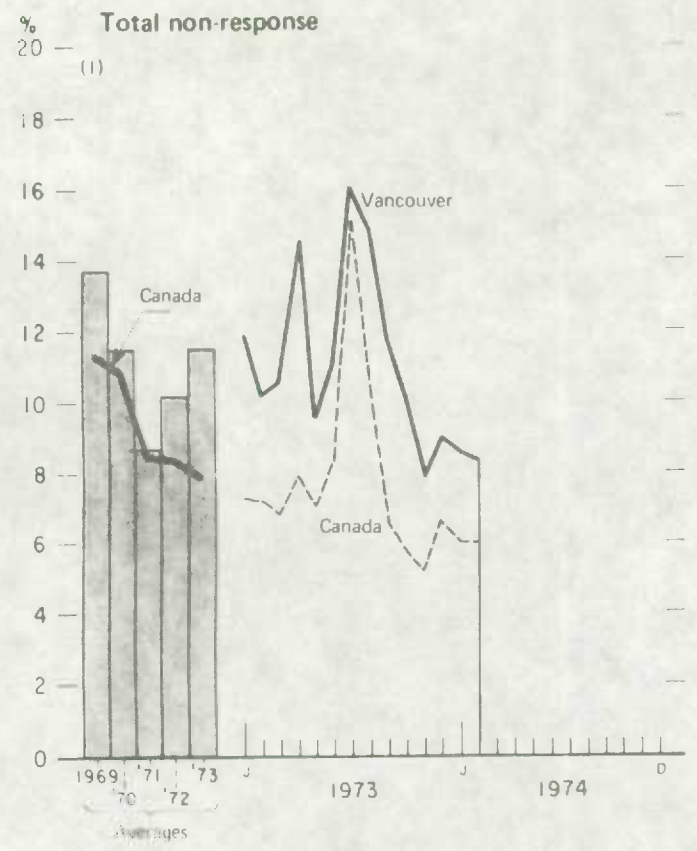
Enumeration cost per household by type of area [o]

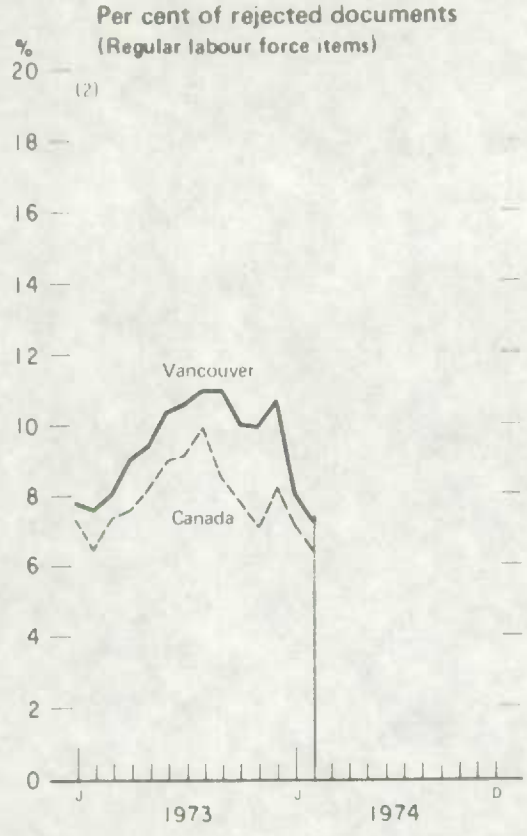


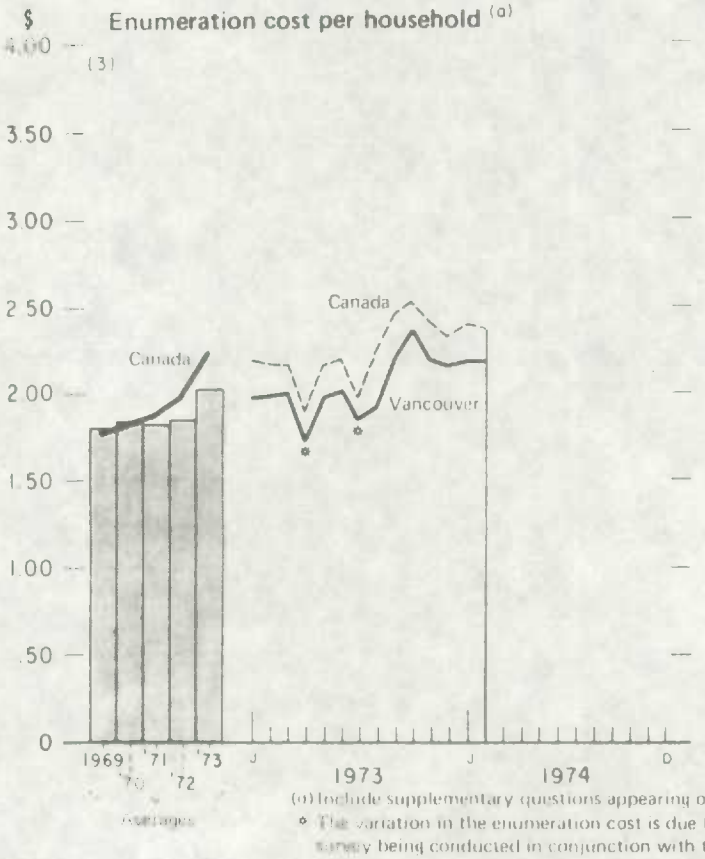
(o) Include supplementary questions appearing on the LFS regular schedule.

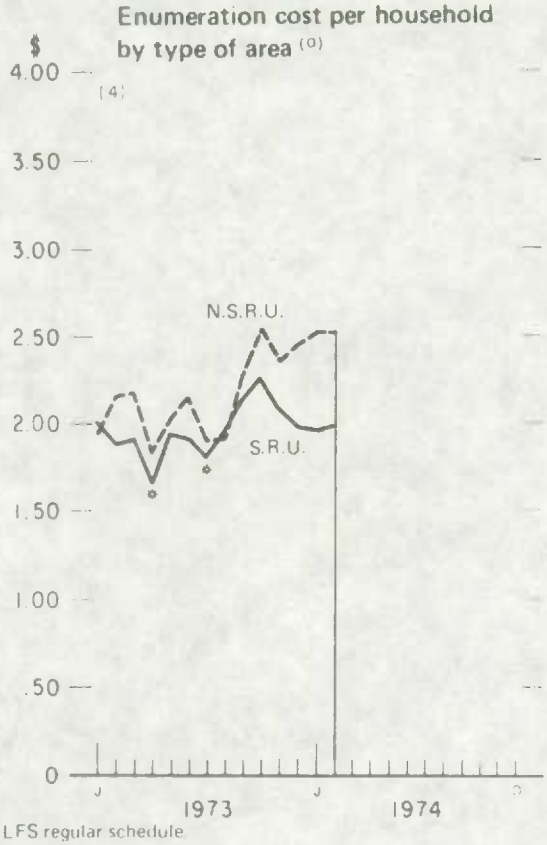
* The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Vancouver Regional Office









(a) Include supplementary questions appearing on the LFS regular schedule.

* The variation in the enumeration cost is due to a major supplementary survey being conducted in conjunction with the regular Labour Force Survey.

Non-Response Rates by Component, Canada and the Regional Offices
January and February 1972, 1973, 1974

	1974		1973		1972	
	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.
Total						
Canada	6.0	6.0	7.2	7.3	9.2	7.8
St. John's	2.0	2.6	3.5	3.1	6.8	6.1
Halifax	5.9	7.2	7.0	6.4	9.6	5.5
Montreal	7.7	6.4	7.2	8.2	7.8	6.0
Ottawa	6.7	6.3	6.6	8.2	8.2	6.9
Toronto	6.0	5.6	6.6	6.3	12.2	10.5
Winnipeg	3.0	2.6	2.9	2.4	5.6	6.0
Edmonton	5.0	5.7	11.0	9.4	10.6	10.5
Vancouver	8.4	8.6	10.2	11.9	9.0	9.1
Temporarily Absent						
Canada	1.8	1.7	2.2	1.8	2.3	1.8
St. John's	0.6	0.9	0.9	0.9	3.0	2.9
Halifax	1.3	1.2	1.6	1.1	1.6	1.4
Montreal	1.6	1.3	1.8	1.4	1.7	1.2
Ottawa	1.4	1.6	2.8	2.4	3.0	2.9
Toronto	2.5	2.1	2.6	2.1	2.5	1.7
Winnipeg	1.5	1.5	1.5	1.4	2.4	2.0
Edmonton	1.9	1.7	3.9	3.2	3.2	2.5
Vancouver	2.4	2.4	2.2	2.1	2.2	1.8
No one home						
Canada	1.7	1.5	2.1	2.5	3.4	2.4
St. John's	0.6	0.6	1.4	1.3	2.4	1.2
Halifax	1.9	1.3	1.9	1.9	3.3	2.0
Montreal	2.0	2.5	2.3	2.8	3.3	2.5
Ottawa	3.2	2.1	1.2	1.5	2.5	1.9
Toronto	1.3	1.4	1.9	2.3	5.6	3.4
Winnipeg	0.7	0.4	0.5	0.6	1.2	1.1
Edmonton	1.2	1.2	2.8	3.2	3.4	2.3
Vancouver	2.4	1.9	3.8	4.8	2.7	2.8
Refusals						
Canada	1.6	1.6	1.9	1.7	1.5	1.4
St. John's	0.6	0.4	0.7	0.4	0.3	0.4
Halifax	1.6	1.8	2.2	2.3	1.1	1.0
Montreal	2.1	2.0	2.4	2.0	1.8	1.3
Ottawa	1.3	1.2	1.5	1.3	0.9	0.8
Toronto	1.5	1.3	1.6	1.2	1.9	1.9
Winnipeg	0.6	0.6	0.8	0.4	1.3	1.3
Edmonton	1.4	1.5	2.3	2.4	1.0	1.2
Vancouver	2.8	2.7	2.3	2.5	2.2	2.3
Other						
Canada	0.9	1.2	1.0	1.3	2.0	2.2
St. John's	0.2	0.7	0.5	0.5	1.1	1.6
Halifax	1.1	2.9	1.3	1.1	3.6	1.1
Montreal	2.0	0.6	0.7	2.0	1.0	1.0
Ottawa	0.8	1.4	1.1	3.0	1.8	1.3
Toronto	0.7	0.8	0.5	0.7	2.2	3.5
Winnipeg	0.2	0.1	0.1	0.0	0.7	1.6
Edmonton	0.5	1.3	2.0	0.6	3.0	4.5
Vancouver	0.8	1.6	1.9	2.5	1.9	2.2

STATISTICS CANADA — STATISTIQUE CANADA

FIELD DIVISION — DIVISION DES OPÉRATIONS RÉGIONALES

LFS 7

- 20 -

LABOUR FORCE SURVEY
ENQUÊTE SUR LA MAIN-D'OEUVRE

ANALYSIS OF REJECTED DOCUMENTS
ANALYSE DES DOCUMENTS REJETÉS

SURVEY No. 284
ENQUÊTE

February - *Février* 1974

	CANADA	ST.JOHN'S	HALIFAX	MONTRÉAL	OTTAWA	TORONTO	WINNIPEG	EDMONTON	VANCOUVER
TOTAL DOCUMENTS RECEIVED TOTAL DES DOCUMENTS REÇUS	76,859	4,611	13,339	14,751	4,766	15,648	7,259	8,462	8,023
REJECTED DOCUMENTS DOCUMENTS REJETÉS	4,942	116	882	862	209	1,331	337	629	576
% REJECTED DOCUMENTS POURCENTAGE DES DOCUMENTS REJETÉS	6.4	2.5	6.6	5.8	4.4	8.5	4.6	7.4	7.2
SUPPLEMENTARY ITEMS ARTICLES SUPPLÉMENTAIRES									
REJECTED DOCUMENTS DOCUMENTS REJETÉS	10	-	1	-	1	3	-	4	1
% OF TOTAL DOCUMENTS POURCENTAGE DU TOTAL DES DOCUMENTS	0.0	-	-	-	0.0	0.0	-	0.0	0.0
% OF REJECTED DOCUMENTS POURCENTAGE DES DOCUMENTS REJETÉS	0.2	-	0.1	-	0.5	0.2	-	0.6	0.2
LABOUR FORCE ITEMS ARTICLES DE LA MAIN-D'OEUVRE									
REJECTED DOCUMENTS DOCUMENTS REJETÉS	4,932	116	881	862	208	1,328	337	625	575
% OF TOTAL DOCUMENTS POURCENTAGE DE TOUS LES DOCUMENTS	6.4	2.5	6.6	5.8	4.4	8.5	4.6	7.4	7.2
% OF REJECTED DOCUMENTS POURCENTAGE DES DOCUMENTS REJETÉS	99.8	100.0	99.9	100.0	99.5	99.8	100.0	99.4	99.8
No. OF CARELESS ERRORS NOMBRE DE FAUTES D'INATTENTION	2,926	56	379	562	78	953	252	379	267
AVE. PER DOCUMENT MOYENNE PAR DOCUMENT	.038	.032	.028	.038	.016	.061	.035	.045	.033
AVE. PER REJECTED DOCUMENT MOYENNE PAR DOCUMENT REJETÉ	.592	.483	.430	.652	.373	.716	.748	.602	.464
No. OF BLANKS IN ID. NOMBRE DE BLANCS À L'IDENTIFICATION	917	6	74	228	22	259	109	131	88
AVERAGE PER DOCUMENT MOYENNE PAR DOCUMENT	.012	.001	.005	.015	.005	.016	.015	.015	.011
AVE. PER REJECTED DOCUMENT MOYENNE PAR DOCUMENT REJETÉ	.185	.052	.084	.264	.105	.194	.323	.208	.153

CARELESS ERROR: sum of errors for items 1 to 10 and 24, 25, and 26 on the LFS document.
FAUTE D'INATTENTION: total des erreurs aux articles 1-10 et 24, 25 et 26 sur le document LFS.

9713-50: 6-1-7

Enumeration Cost per Household by Regional Office, S.R.U. and N.S.R.U.
September 1972 to February 1973 and September 1973 to February 1974

	1974		1973				1973		1972			
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.
All areas												
Canada ... $	2.38	2.40	2.32	2.41	2.52	2.46	2.18	2.20	2.20	2.15	2.10	2.08
St. John's ... $	2.75	2.78	2.70	2.75	2.89	2.71	2.47	2.35	2.42	2.42	2.35	2.27
Halifax ... $	2.24	2.31	2.18	2.29	2.29	2.29	1.92	1.90	1.86	1.80	1.75	1.77
Montreal ... $	2.53	2.52	2.37	2.58	2.70	2.66	2.38	2.42	2.47	2.28	2.27	2.29
Ottawa ... $	2.57	2.66	2.44	2.53	2.66	2.68	2.40	2.20	2.35	2.38	2.26	2.29
Toronto ... $	2.39	2.42	2.43	2.47	2.67	2.60	2.31	2.48	2.43	2.40	2.29	2.26
Winnipeg ... $	2.43	2.42	2.40	2.39	2.48	2.40	2.21	2.22	2.21	2.24	2.16	2.16
Edmonton ... $	2.21	2.24	2.11	2.22	2.29	2.24	1.91	1.93	1.89	1.85	1.88	1.83
Vancouver ... $	2.19	2.19	2.16	2.19	2.37	2.20	1.99	1.98	1.96	1.99	1.97	1.89
S.R.U.												
Canada ... $	2.14	2.14	2.10	2.24	2.35	2.32	2.06	2.14	2.10	2.04	1.99	1.99
St. John's ... $	2.28	2.27	2.13	2.15	2.37	2.17	2.13	2.14	2.12	1.98	1.92	1.98
Halifax ... $	2.17	2.11	2.04	2.16	2.07	2.01	1.62	1.71	1.64	1.63	1.58	1.66
Montreal ... $	2.25	2.25	2.12	2.42	2.55	2.52	2.34	2.33	2.41	2.23	2.18	2.20
Ottawa ... $	2.43	2.51	2.33	2.35	2.50	2.56	2.33	2.20	2.34	2.33	2.19	2.27
Toronto ... $	2.28	2.31	2.37	2.43	2.59	2.57	2.23	2.39	2.32	2.30	2.23	2.19
Winnipeg ... $	2.05	2.02	2.12	2.13	2.21	2.12	1.93	2.05	2.03	1.98	1.97	1.93
Edmonton ... $	1.56	1.56	1.40	1.63	1.74	1.81	1.61	1.68	1.61	1.55	1.57	1.53
Vancouver ... $	1.99	1.97	1.98	2.08	2.27	2.14	1.89	2.01	1.88	1.84	1.84	1.79
N.S.R.U.												
Canada ... $	2.70	2.75	2.61	2.64	2.74	2.65	2.33	2.29	2.32	2.29	2.23	2.19
St. John's ... $	2.92	2.95	2.90	2.96	3.08	2.91	2.59	2.43	2.54	2.58	2.52	2.36
Halifax ... $	2.30	2.45	2.27	2.37	2.44	2.47	2.12	2.02	2.00	1.90	1.86	1.85
Montreal ... $	3.06	3.00	2.83	2.88	2.96	2.92	2.47	2.60	2.58	2.39	2.43	2.46
Ottawa ... $	2.81	2.89	2.60	2.79	2.90	2.85	2.51	2.19	2.36	2.45	2.37	2.30
Toronto ... $	2.70	2.69	2.60	2.59	2.86	2.72	2.52	2.74	2.76	2.64	2.43	2.42
Winnipeg ... $	2.79	2.81	2.66	2.64	2.73	2.66	2.45	2.38	2.38	2.46	2.32	2.37
Edmonton ... $	2.89	2.96	2.83	2.84	2.83	2.68	2.18	2.17	2.16	2.14	2.16	2.09
Vancouver ... $	2.52	2.52	2.44	2.35	2.53	2.27	2.15	1.95	2.10	2.23	2.20	2.03

	Month-to-month change								Year-to-year change			
	1974	Dec. 1973 to Jan. 1974	1973		Jan. to Feb.	Dec. 1972 to Jan. 1973	1972		Feb. 1973 to Feb. 1974	Jan. 1973 to Jan. 1974	Dec. 1972 to Dec. 1973	Nov. 1972 to Nov. 1973
	Jan. to Feb.		Nov. to Dec.	Oct. to Nov.			Nov. to Dec.	Oct. to Nov.				
All areas												
Canada ... $	− 0.02	+ 0.08	− 0.09	− 0.11	− 0.02	−	+ 0.05	+ 0.05	+ 0.20	+ 0.20	+ 0.12	+ 0.26
St. John's ... $	− 0.03	+ 0.08	− 0.05	− 0.14	+ 0.12	− 0.07	−	+ 0.07	+ 0.28	+ 0.43	+ 0.28	+ 0.33
Halifax ... $	− 0.07	+ 0.13	− 0.11	−	+ 0.02	+ 0.04	+ 0.06	+ 0.05	+ 0.32	+ 0.41	+ 0.32	+ 0.49
Montreal ... $	+ 0.01	+ 0.15	− 0.21	− 0.12	− 0.04	− 0.05	+ 0.19	+ 0.01	+ 0.15	+ 0.10	− 0.10	+ 0.30
Ottawa ... $	− 0.09	+ 0.22	− 0.09	− 0.13	+ 0.20	− 0.15	− 0.03	+ 0.12	+ 0.17	+ 0.46	+ 0.09	+ 0.15
Toronto ... $	− 0.03	− 0.01	− 0.04	− 0.20	− 0.17	+ 0.05	+ 0.03	+ 0.11	+ 0.08	− 0.06	−	+ 0.07
Winnipeg ... $	+ 0.01	+ 0.02	+ 0.01	− 0.09	− 0.01	+ 0.01	− 0.03	+ 0.08	+ 0.22	+ 0.20	+ 0.19	+ 0.15
Edmonton ... $	− 0.03	+ 0.13	− 0.11	− 0.07	− 0.02	+ 0.04	+ 0.04	− 0.03	+ 0.30	+ 0.31	+ 0.22	+ 0.37
Vancouver ... $	−	+ 0.03	− 0.03	− 0.18	+ 0.01	+ 0.02	− 0.03	+ 0.02	+ 0.20	+ 0.21	+ 0.20	+ 0.20
S.R.U.												
Canada ... $	−	+ 0.04	− 0.14	− 0.11	− 0.08	+ 0.04	+ 0.06	+ 0.05	+ 0.08	−	−	+ 0.20
St. John's ... $	+ 0.01	+ 0.14	− 0.02	− 0.22	− 0.01	+ 0.02	+ 0.14	+ 0.06	+ 0.15	+ 0.13	+ 0.01	+ 0.17
Halifax ... $	+ 0.06	+ 0.07	− 0.12	+ 0.09	− 0.09	+ 0.07	+ 0.01	+ 0.05	+ 0.55	+ 0.40	+ 0.40	+ 0.53
Montreal ... $	−	+ 0.13	− 0.30	− 0.13	+ 0.01	− 0.08	+ 0.18	+ 0.05	− 0.09	− 0.08	− 0.29	+ 0.19
Ottawa ... $	− 0.08	+ 0.18	− 0.02	− 0.15	+ 0.13	− 0.14	+ 0.01	+ 0.14	+ 0.10	+ 0.31	− 0.01	+ 0.02
Toronto ... $	− 0.03	− 0.06	− 0.06	− 0.16	− 0.16	+ 0.07	+ 0.02	+ 0.07	+ 0.05	− 0.08	+ 0.05	+ 0.13
Winnipeg ... $	+ 0.03	− 0.10	− 0.01	− 0.08	− 0.12	+ 0.02	+ 0.05	+ 0.01	+ 0.12	− 0.03	+ 0.09	+ 0.15
Edmonton ... $	−	+ 0.16	− 0.23	− 0.11	− 0.07	+ 0.07	+ 0.06	− 0.02	− 0.05	− 0.12	− 0.21	+ 0.08
Vancouver ... $	+ 0.02	− 0.01	− 0.10	− 0.19	− 0.12	+ 0.13	+ 0.04	−	+ 0.10	− 0.04	+ 0.10	+ 0.24
N.S.R.U.												
Canada ... $	− 0.05	+ 0.14	− 0.03	− 0.10	+ 0.04	− 0.03	+ 0.03	+ 0.06	+ 0.37	+ 0.46	+ 0.29	+ 0.35
St. John's ... $	− 0.03	+ 0.05	− 0.06	− 0.12	+ 0.16	− 0.11	− 0.04	+ 0.06	+ 0.33	+ 0.52	+ 0.36	+ 0.38
Halifax ... $	− 0.15	+ 0.18	− 0.10	− 0.07	+ 0.10	+ 0.02	+ 0.10	+ 0.04	+ 0.18	+ 0.43	+ 0.27	+ 0.47
Montreal ... $	+ 0.06	+ 0.17	− 0.05	− 0.08	− 0.13	+ 0.02	+ 0.19	− 0.04	+ 0.59	+ 0.40	+ 0.25	+ 0.49
Ottawa ... $	− 0.08	+ 0.29	− 0.19	− 0.11	+ 0.32	− 0.17	− 0.09	+ 0.08	+ 0.30	+ 0.70	+ 0.24	+ 0.34
Toronto ... $	+ 0.01	+ 0.09	+ 0.01	− 0.27	− 0.22	− 0.02	+ 0.12	+ 0.21	+ 0.18	− 0.05	− 0.16	− 0.05
Winnipeg ... $	− 0.02	+ 0.15	+ 0.02	− 0.09	+ 0.07	−	− 0.08	+ 0.14	+ 0.34	+ 0.43	+ 0.28	+ 0.18
Edmonton ... $	− 0.07	+ 0.13	− 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.02	− 0.02	+ 0.71	+ 0.79	+ 0.67	+ 0.70
Vancouver ... $	−	+ 0.08	+ 0.09	− 0.18	+ 0.20	− 0.15	− 0.13	+ 0.03	+ 0.37	+ 0.57	+ 0.34	+ 0.12

NOTE: Slippage rates have been deleted temporarily from this table as historical rates are not yet available on the revised basis. However, a table is given on next page giving slippage rates for January 1974 and February 1974 calculated on population projections based on 1971 Census.

DEFINITIONS

RELATED TO SECTION 1A

Slippage - population slippage is defined as the percentage difference between the Census population projection, Pp (preliminary projections based on the 1971 Census) for a given month and the population estimate $\hat{P}p$ derived from the Labour Force Survey sample for the same month. It is given by

$$\frac{Pp - \hat{P}p}{Pp} \cdot 100$$

RELATED TO SECTION 1B

Total non-response - proportion of households which were not interviewed due to lack of co-operation or their unavailability to the survey interviewer.

RELATED TO SECTION 1C

Variance - There is a certain amount of error present in any estimate obtained from a sample, (due to the lack of complete information about the population). The average of the estimates, obtained from the various possible samples, is called the expected value of the estimate. If the difference between an estimate and its expected value is squared and this squared difference is averaged over all possible samples which could be selected from the sample frame, we obtain the sampling variance. The square root of the sampling variance is called the standard deviation. The coefficient of variation of an estimate is defined to be the standard deviation of the estimate divided by the estimate times 100 to convert to a percentage. If the expected value of an estimate is not equal to the true population value then the estimate is said to be biased. Among the causes of this bias are non-response, slippage and processing errors. The square of the difference between an estimate and the true population value averaged over all possible samples from the sample frame is called the mean square error. The variance estimate for a characteristic is influenced by changes in the population size, the sample size, and the frequency of the characteristic being considered. For these reasons the variance estimates should be standardized; the binomial factor is one such standardization. The binomial factor is defined to be the ratio of the variance estimate to an estimate of what the variance would be if a similar sample has been obtained through a simple random sampling procedure. The binomial factor measures the behaviour of the sample design relative to a simple random sample as far as the characteristic is concerned.

RELATED TO SECTION 1D

Percentage of Rejected Documents - The Summary Table and Charts give the percentage of labour force documents requiring clerical edits due to missing or inconsistent entries in the regular labour force items.

A complete analysis of rejects for the current month, including rejects for the additional questions (supplementary), is given in a separate table. It should be noted that the total reject rate is affected considerably by the supplementary questions which vary in complexity from one month to the next.

Careless Errors - The term "careless errors" refers to omissions, poor marks and inconsistent entries on the Labour Force schedule for identification, sex, marital status, relationship to head and age as taken from the entries on the Household Record Card, plus the failure to answer item 26, "Was this person interviewed?"

RELATED TO SECTION 1E

Enumeration Cost per Household - The per household costs are calculated using the total number of households sampled for the survey in relation to the cost incurred to do the interviewing, in terms of fees paid to the interviewer (hourly rated employee) and the interviewer expenses to cover the assignment (mileage, etc).

Interviewing refers to obtaining the information by personal visit to the household, or by telephoning the household to obtain the information, for the LF survey and for supplementary questions added to the LF document for the current month.

Variances in the Labour Force Survey

Introduction

Another important quality measure pertaining to the statistics is that of sampling variance, defined by the mean square deviation of statistics over all possible samples from the expected value over all possible samples which may be selected from the sample frame. Due to the well designed sampling procedure and to careful processing of the data, the bias of this statistic should be small. The estimated variances, the standard deviations, and the coefficients of variation are calculated each month for a set of characteristics. From the estimated standard deviations and the coefficients of variation confidence intervals for published statistics, ignoring the effect of non-sampling errors, may be obtained under the assumption that estimated totals are normally distributed about the true population value. Thus if it is found that an unemployed estimate possesses a coefficient of variation of 3% then an unemployed estimate may vary 6% (2 standard deviations) about the true population value in either direction in 95% of the samples that could be drawn from the LFS frame.

Rough confidence intervals may be obtained from the lettered symbols given in the monthly publications (The Labour Force: Catalogue 71-001). Due to time deadlines for the release of these publications the lettered symbols are based on the average of the monthly coefficients of variation for the previous year. The lettered symbol, which indicates a range in which the coefficient of variation is expected to fall, gives the user an indication of the reliability of the estimate.

From any particular survey the obtained coefficient of variation will not necessarily fall within the range indicated by the lettered symbol found in the publication because of 1) the sampling variance of the estimated coefficient of variation and 2) the seasonal effects which are not reflected in the published lettered symbols.

Example: For an estimate of 175,000 with a coefficient of variation of 2.47% then in 95% of all different samples that could be selected from the sample frame, the estimate would deviate from the true population value by not more than 8,645.

The complexity of the formulas for the theoretical variance based on the multi-stage sampling procedure for the Labour Force Survey make it difficult to determine from the calculations alone if the variances are high considering the sample design or the frequency of the characteristic even if they are high for purposes of analysis. Because coefficients of variation decrease with increases in the

population, the sample size and the frequency of the characteristic, the calculated variances should be compared with some standard values.

Assuming a similar number of persons were drawn at random in each province one such standard value is the corresponding random sample variance, which is a function of the population size, the sample size, and the frequency of the characteristic. The ratio of the estimated variance from the computer programs to this random sample variance or the binomial factor is calculated monthly for each characteristic.

The higher the factor the worse the sample design relative to a simple random sample as far as the characteristic is concerned. A high factor may be the result of limitations imposed by cost restrictions and not the result of a bad sample design.

High factors do indicate where further analysis should be undertaken and where there is potential for improvement in the present sample design. High variances at provincial levels are frequently attributable to one or two PSUs so that for quality studies, the analysis will often centre around studies of sub-provincial contributions to the total variance. In table I are included the binomial factors and the coefficients of variation for several estimates.

Definitions

Sampling variance: The average of squared deviations of statistics over all possible samples from the average value of the statistics over all possible samples (neglecting the effect of non-sampling errors).

Non-sampling errors: Deviations from the true (but usually unknown) value of a statistic caused by factors other than sampling (such as non-response, slippage, coding errors).

Standard deviation: The square root of the sampling variance.

Coefficient of variation: The standard deviation expressed as a percent of the estimate of a quantity, sometimes termed percent standard deviation.

Confidence intervals: The intervals in which the unknown value of the population to be estimated from a sample may be expected to lie a given percent of the time (commonly 95% of the time).

Binomial Factor (design effect): The ratio of the variance of a statistic as estimated from the sample considering the sample design compared with the variance of a statistic obtained in a simple random sample of the same size.

Reliability: Not really a statistical term but referring in general to the standard deviation, variance of a statistic, and confidence interval. In Table 1, the coefficient of variation is used as a measure of the reliability of estimates.

The following table presents some results of the monthly Labour Force Survey. Included are estimates, coefficients of variation and binomial factors for the characteristics Employed, Unemployed and "In Labour Force".

Table 1: Estimates, Their Coefficients of Variation and Their Binomial Factors for Canada and by Province for February, 1974

	Population Estimate	Employed				Unemployed				In Labour Force			
		Estimate	C.V.	Symbol	B.F.	Estimate	C.V.	Symbol	B.F.	Estimate	C.V.	Symbol	B.F.
Canada	16,383	8,671	0.38	A	1.19	635	2.39	C	1.73	9,306	0.33	A	1.04
Nfld.	377	141	2.60	D	2.00	36	5.75	E	1.78	176	1.90	C	1.57
P.E.I.	81	33	5.21	E	2.22	5	15.23	F	1.79	38	3.03	D	0.96
N.S.	564	260	1.63	C	1.69	26	8.50	E	2.75	287	1.35	C	1.41
N.B.	471	209	1.73	C	1.53	28	9.18	E	3.78	237	1.38	C	1.23
Que.	4,580	2,299	0.86	B	1.26	233	4.13	D	1.63	2,532	0.71	B	1.06
Ont.	5,978	3,364	0.63	B	1.11	183	4.86	D	1.65	3,547	0.56	B	0.99
Man.	717	391	1.39	C	1.01	16	9.86	E	0.97	407	1.21	C	0.84
Sask.	653	329	1.35	C	0.81	17	12.06	F	1.59	346	1.25	C	0.77
Alta.	1,203	698	0.95	B	0.91	25	10.28	F	1.57	723	0.94	B	0.98
B.C.	1,759	947	1.15	C	1.44	66	8.08	E	2.37	1,013	1.01	B	1.28

C.V. - Coefficient of Variation
B.F. - Binomial Factors
Estimates in thousands

Alphabetic Symbol	Percent of Estimates at One Standard Deviation
A	0.0 - 0.5%
B	0.6 - 1.0%
C	1.1 - 2.5%
D	2.6 - 5.0%
E	5.1 - 10.0%
F	10.1 - 16.5%
G	16.6 - 25.0%
H	25.1 - 33.3%
J	33.4 - 50.0%
K	50.1 +

Analysis of Sub-Provincial Contributions to the Variance

On the basis of the binomial factor corresponding to the estimated total of a characteristic, the decision is made whether to study sub-provincial contributions to the variance of this characteristic or not. A high binomial factor or a substantial increase in the factor over the corresponding factors for the previous months indicate that a study should be carried out to determine the origins of the high variance or increase in the factor.

A portion of the provincial variance is contributed by each subunit or pair of PSUs and these contributions tallied over all subunits and pairs of PSUs yield the variance estimate of the characteristic total at the provincial level. The purpose of the analysis of subprovincial contributions to the variance is to determine those subunits or PSUs where the portion of the variance contributed is excessively large relative to a desired portion based on the population and sampling ratio in the sub-provincial area. Such "problem areas" are determined by a statistical test of hypothesis.

The results of the analysis for those characteristics and provinces, as determined by their binomial factors, are presented in Tables 2a, 2b, etc. The percentage of the variance contributed is simply the contribution by the pair of PSUs or subunit expressed as a percentage of the provincial variance. The desired percentage contribution is the ratio of a weighted population estimate of the subunit or stratum to a weighted total population estimate of the province expressed as a percentage. The weights (a weight of 1 for NSRU PSUs and a weight of 1.5 for SRU subunits) adjust the population estimates to take into account the difference in sampling ratios between NSRU and SRU parts of the province.

Analysis of Subprovincial Contributions to the Variance for the February 1974 Survey

The binomial factor of 2.22 for the estimate of Employed in Prince Edward Island is considerably higher than the corresponding values for previous months. An analysis of the subprovincial contributions to the variance revealed that the subunit which contains Charlottetown contributed excessively to the provincial variance.

Table 2a) Actual vs Desired Contribution to the Variance of Employed in Prince Edward Island by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
10101	61.8	21.7
All other PSUs and Subunits	48.2	88.3

At 2.75 the binomial factor for Unemployed in Nova Scotia is the highest this factor has been since July of 1973 when this variance report was started. There were a pair of PSUs in which there was a great discrepancy between the desired and actual contributions.

Table 2b) Actual vs Desired Contribution to the Variance of Unemployed in Nova Scotia by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
20022 & 20024	23.7	1.6
20106	4.1	1.2
All other PSUs and Subunits	72.2	97.2

For the estimate of Unemployed in New Brunswick, the binomial factor with a value of 3.78 indicated that a detailed analysis of the subprovincial contributions to the variance of the provincial estimate should be carried out. One of the pairs of PSUs which contributed a disproportionately large portion of the provincial variance - PSUs 30002 and 30004 - have been a cause of the high sampling variability of Unemployed in New Brunswick for the past five consecutive months. The ratio of actual contribution to desired contribution for the 5 months has been:

	OCT	NOV	DEC	JAN	FEB
$\frac{\text{actual \%}}{\text{desired \%}}$	3.4	10.6	7.4	7.2	3.7

In addition to this pair of PSUs another pair of PSUs contributed far in excess of their desired contribution to the provincial variance.

Table 2c) Actual vs Desired Contribution to the Variance of Unemployed in New Brunswick by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
30002 & 30004	15.9	4.3
33003 & 33005	42.6	3.7
All other PSUs and Subunits	41.5	92.0

In the province of Ontario, three subprovincial areas contributed excessively to the variance of the provincial estimate of Unemployed. This subprovincial analysis was carried out because the binomial factor with a value of 1.65 is high relative to last month's factor and relative to the level of the binomial factors over most previous months.

Table 2d) Actual vs Desired Contribution to the Variance of Unemployed in Ontario by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
55027 & 55034	5.5	0.9
57001 & 57011	7.9	1.3
58401 - 58402	2.7	0.5
All other PSUs and Subunits	84.1	97.3

In Saskatchewan the binomial factor for Unemployed increased from 1.35 in January to 1.59 in February. An analysis revealed one subprovincial area which partially caused the variance to be large relative to what the variance would be had similar results been obtained from a simple random sample.

Table 2e) Actual vs Desired Contribution to the Variance of Unemployed in Saskatchewan by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
70006 & 70018	20.7	4.7
All other PSUs and Subunits	79.3	95.3

The binomial factor for Unemployed in British Columbia increased drastically from a value of 1.62 for the January survey to 2.37 for the February survey. This indicated that an analysis of subprovincial contributions to the variance of Unemployed should be made.

Table 2f) Actual vs Desired Contribution to the Variance of Unemployed in British Columbia by PSUs and Subunits

PSUs or Subunits	Percentage of the Variance Contributed	Desired Percentage Contribution
92003 & 92013	18.3	2.9
94022 & 94026	25.9	2.6
All other PSUs and Subunits	55.8	94.5

Detailed analyses of some PSUs which contributed an excessive amount to the provincial variances for the January survey were completed. These involved examining individual records to determine possible reasons for the large contributions.

a) For the January survey, PSUs 23003 and 23009 in Nova Scotia contributed 20.7% of the provincial variance of Employed compared to a desired contribution of 2.5% based on the relative size of the population of the PSUs. There were no apparent trends for divergent industry distributions between the two PSUs; however, the proportion of employed was considerably higher in PSU 23003 than in PSU 23009 and this is to some extent responsible for the large contribution.

Table 3a) Estimates and Sample Takes by Characteristic and PSUs for PSUs 23003 and 23009

	PSU 23003		PSU 23009	
	Estimate	Sample Take	Estimate	Sample Take
Employed	5,049	66	3,065	42
Unemployed	362	5	821	11
Not in LF	3,720	54	4,719	66
Total	9,131	125	8,605	119

The proportion of Employed in PSU 23003 is .553 whereas in PSU 23009 the proportion of Employed is .356.

b) PSUs 30002 and 30004 contributed 29.5% of the variance of Unemployed in New Brunswick compared with a desired contribution of 4.1%. In the December Quality Report a detailed study of these PSUs was carried out also. The situation remains similar for the January survey with the main reasons for the high contribution being unequal distributions by PSUs of industries which are prone to seasonal unemployment and a general tendency for Unemployeds to cluster in PSU 30002. The following table depicts these results:

Table 3b) Estimates and Sample Takes by Characteristics and PSUs for PSUs 30002 and 30004

	Employed				Unemployed				In Labour Force			
	30002		30004		30002		30004		30002		30004	
	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#
Agriculture	159	2	198	3	71	1	0	0	230	3	198	3
Other Primary Industries	0	0	0	0	795	10	60	1	795	10	60	1
Manufacturing	121	2	1270	16	862	11	60	1	983	13	1330	17
Construction	702	10	592	9	735	10	59	1	1437	20	651	10
Other Ind.	2584	33	1466	35	187	2	0	0	2771	35	2467	35
Total	3566	47	4526	63	2650	34	180	3	6216	81	4706	66

The estimated population from PSU 30002 is 13,174 and from PSU 30004 is 10,222.

c) In Quebec the contribution of 6.6% of the variance of the estimate of Unemployed in Quebec is much greater than the desired contribution of 0.5% for PSUs 41004 and 41013. The estimated populations differ greatly between these two PSUs and this generally increases the contribution to the provincial variance. From PSU 41004 the estimated population is 7,987 (corresponding to a sample take of 39 persons) while from PSU 41013 the estimated population is 23,079 (corresponding to a sample take of 106 persons). Another cause of this excessive contribution is an unequal distribution of persons in the Labour Force in construction between the two PSUs and subsequent high unemployment in this industry.

Table 3c) Estimates and Sample Takes by Characteristics and PSU for PSUs 41004 and 41013

	Employed				Unemployed				In Labour Force			
	41004		41013		41004		41013		41004		41013	
	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#
Construction	0	0	439	2	421	2	2413	11	421	2	2852	13
Total	2241	11	5363	24	1879	9	5239	24	4120	20	10602	48

d) Also contributing excessively to the variance of Unemployed in Quebec for the January survey were PSUs 46025 and 46034. The desired contribution by these PSUs was 1% and the actual contribution was 15%. The unemployment tended to occur in PSU 46025 where the percentage of the population which was unemployed was 17.3% while in PSU 46034 the percentage was 3.0%. There were vastly different estimates of persons in the Labour Force in the Agriculture industry with high unemployment occurring in one PSU.

Table 3d) Estimates and Sample Takes by Characteristic and PSU for PSUs 46025 and 46034

	Employed				Unemployed				In Labour Force			
	46025		46034		46025		46034		46025		46034	
	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#
Agriculture	2010	8	1466	6	2784	11	0	0	4794	19	1466	6
Manufacturing	1564	7	2579	11	615	3	216	1	2189	10	2795	12
Construction	734	3	959	4	779	3	484	2	1513	6	1443	6
Total	8186	35	14779	62	4630	19	931	4	12816	54	15710	66

e) From the two PSUs 85002 and 85009 the contributions to the variances of both Employed and Unemployed were large in comparison to their desired contributions. The reason for this was a clustering of unemployed occurring in PSU 85002 and also PSU 85002 had a higher percentage of persons employed while PSU 85009 had a higher percentage of persons not in the Labour Force.

Percentage of persons in the categories:

PSU	Employed	Unemployed	Not in LF
85002	53.9	7.0	39.1
85009	31.3	1.0	67.7

The following table presents the results by Industries.

Table 3e) Estimates and Sample Takes by Characteristic and PSU for PSUs 85002 and 85009

	Employed				Unemployed				In Labour Force			
	85002		85009		85002		85009		85002		85009	
	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#	Est.	#
Agriculture	2447	17	2706	18	109	1	159	1	2556	18	2864	19
Other Primary Industries	144	1	0	0	0	0	0	0	144	1	0	0
Manufacturing	269	2	0	0	432	3	0	0	701	5	0	0
Construction	425	3	0	0	147	1	0	0	572	4	0	0
Trans. and Other Util.	425	3	445	3	153	1	0	0	578	4	445	3
Trade	1984	14	146	1	277	2	0	0	2261	16	146	1
Finance	439	3	0	0	0	0	0	0	439	3	0	0
Services	3062	22	1467	10	131	1	0	0	3193	23	1467	10
Public Admin.	420	3	290	2	0	0	0	0	420	3	290	2
Total	9616	68	5054	34	1250	9	158	1	10866	77	5212	35

NON-RESPONSE

The contents of this appendix are taken from publication NR74-2 (February 1974), Non-Response Rates in the Canadian Labour Force Survey, prepared by F.T. Newton and J.R. Norris, Household Surveys Development Staff, and E.T. McLeod of Field Division.

Non-Response Rates

I. Introduction

There are a number of ways of measuring the quality of the Labour Force Survey. One such method is the calculation of non-response rates. The sampling variability of weighted up statistics is inversely proportional to the response rate so that published figures based on a sample with only 80% response rate (20% non-response rate) will have 90/80 or 1.125 times the sampling variability of corresponding figures based on the same sample with 90% response rate (or 10% non-response rate). Together with the increase in sampling variability caused by higher non-response rates there is also a possible increase in the mean square error as a result of the non-response bias. If the characteristics of non-respondents are significantly different from those of respondents, then the higher the non-response rate, the greater the contribution to the mean square error by the non-response bias. The extent of this bias is unknown at present but must be obtained from outside sources of similar data or from special experiments on non-response characteristics.

The non-response rates are presented in the form of graphs for Canada and for regional offices. The rate of non-response is given for each of the four components[1] and for total non-response by month and year.

Non-response follows a marked pattern seasonally, generally peaking in the summer months and declining in the spring and autumn (Graph G1). The seasonality effect is caused by the "temporarily absent[1]" component which increases sharply during the summer months when people are generally away on vacation (Graph G1).

II. Format of Non-Response Graphs and Monthly Meeting

The non-response rate for each regional office is presented by component on a separate page. This format facilitates the examination of the contributions of each component of non-response to the total non-response. In this form, comparison of regional offices can also be made.

The monthly meeting on non-response with J.R. Norris and F.T. Newton, Labour Force Methodology Section and E.T. McLeod, Field Division, deals with the more pronounced movements in the current non-response data.

Commencing with the report on January, 1973, non-response bar charts have been included to show the non-response for each Economic Region (E.R.) in each regional office. The R.O. levels, in total, are shown in a chart under the section headed Canada. Table 1, contains, for Canada and each regional office, the total non-response and each of its components.

[1] See definitions on Page 2

Definitions

Total households includes all sampled households but excluding vacant dwellings, households not be interviewed, etc.

Non-response is defined as the proportion of total households which were not interviewed for the reasons shown and is the sum of the four components given below.

1 Temporarily absent. When all household members are away for the entire interview week. (T.A.)

2 No one home. When after a reasonable number of callbacks, there is no responsible member to interview. (N_1)

3 Refusal. When a responsible member of the household definitely refuses to provide the survey information requested. (N_2)

4 Other. When none of the foregoing reasons are applicable, e.g., roads impassable, enumerator not available, death, illness, language problems, etc. (N_{3-5})

Canada

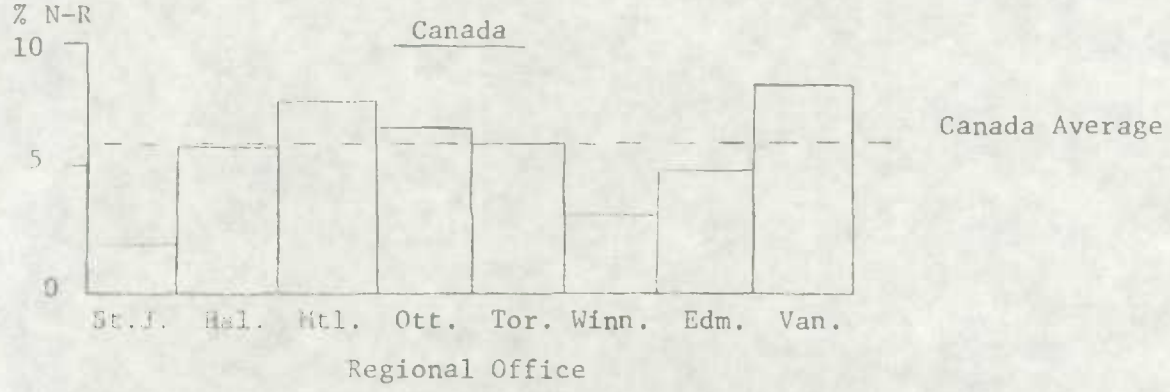
The overall non-response rate at the Canada level remained constant from January 1974 to February 1974. Changes in non-response rates at the component level occurred as follows:

	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.8	1.7	0.1
N1	1.7	1.5	0.2
N2	1.6	1.6	-
Other	0.9	1.2	-0.3
Overall	6.0	6.0	-

Compared with last year's February rate (7.2%), the overall non-response rate for February 1974 was lower. Changes in non-response rates at the component level were as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.8	2.2	-0.4
N1	1.7	2.1	-0.4
N2	1.6	1.9	-0.3
Other	0.9	1.0	-0.1
Overall	6.0	7.2	-1.2

In this case, all components of non-response showed decreases with the largest occurring at the T.A. and N1 levels.



St. John's

The overall non-response rate for the St. John's Regional Office decreased from 2.6% in January 1974 to 2.0% in February 1974. This February's overall rate was the lowest non-response rate recorded by this regional office since January 1972. Changes in non-response rates at the component level occurred as follows:

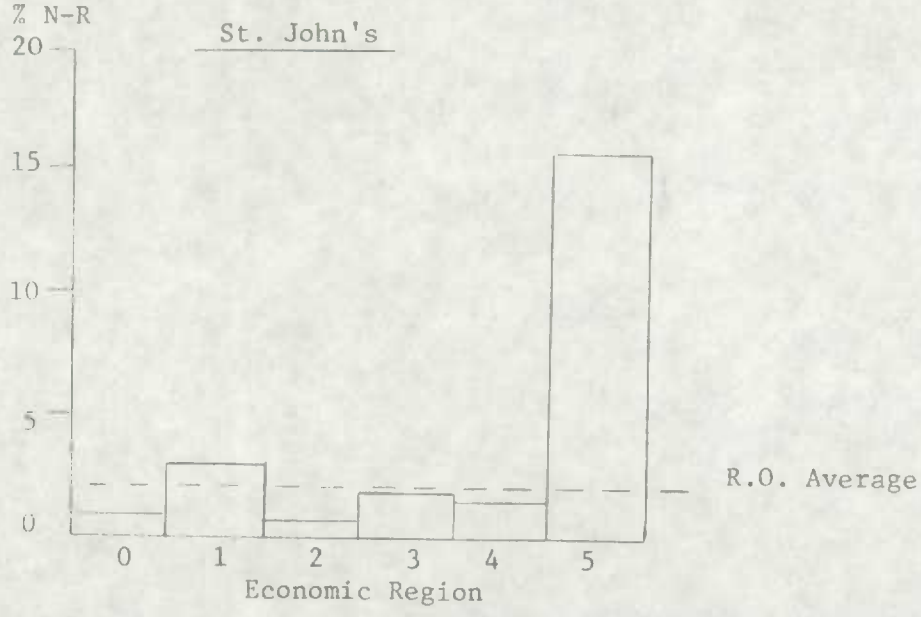
	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	0.6	0.9	-0.3
N1	0.6	0.6	-
N2	0.6	0.4	0.2
Other	0.2	0.7	-0.5
Overall	2.0	2.6	-0.6

From the above table, it is evident that a major portion of the decrease in the overall non-response rate is attributable to the "Other" component.

Compared to the February 1973 overall rate of 3.5%, this year's February rate was lower. Changes in the rate at the component level were as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	0.6	0.9	-0.3
N1	0.6	1.4	-0.8
N2	0.6	0.7	-0.1
Other	0.2	0.5	-0.3
Overall	2.0	3.5	-1.5

Hence the reduction in the overall non-response rate from one year ago was due to a decrease in all components with the N1 level making up a major contribution to this decrease.



Halifax

In the Halifax Regional Office, the overall non-response rate decreased from 7.2% in January 1974 to 5.9% in February 1974. Changes in non-response rates at the component level were as follows:

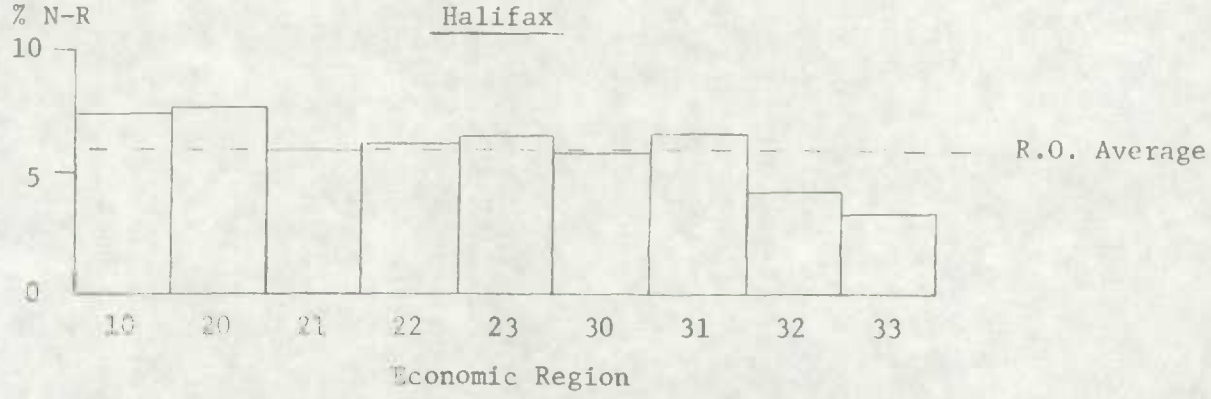
	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.3	1.2	0.1
N1	1.9	1.3	0.6
N2	1.6	1.8	-0.2
Other	1.1	2.9	-1.8
Overall	5.9	7.2	-1.3

From the above table, it is evident that the decrease in the 'Other' level has caused the overall non-response rate to become lower.

Compared with the February 1973 overall rate of 7.0%, this year's rate was lower. Differences in non-response rates at the component level were as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.3	1.6	-0.3
N1	1.9	1.9	-
N2	1.6	2.2	-0.6
Other	1.1	1.3	-0.2
Overall	5.9	7.0	-1.1

It is evident, from the above table, that the decrease in the 'N2' level made up over one half the total decrease in the overall non-response rate.



Montreal

The overall non-response rate for the Montreal Regional Office increased from 6.4% in January 1974 to 7.7% February 1974. Changes in non-response rates at the component level occurred as follows:

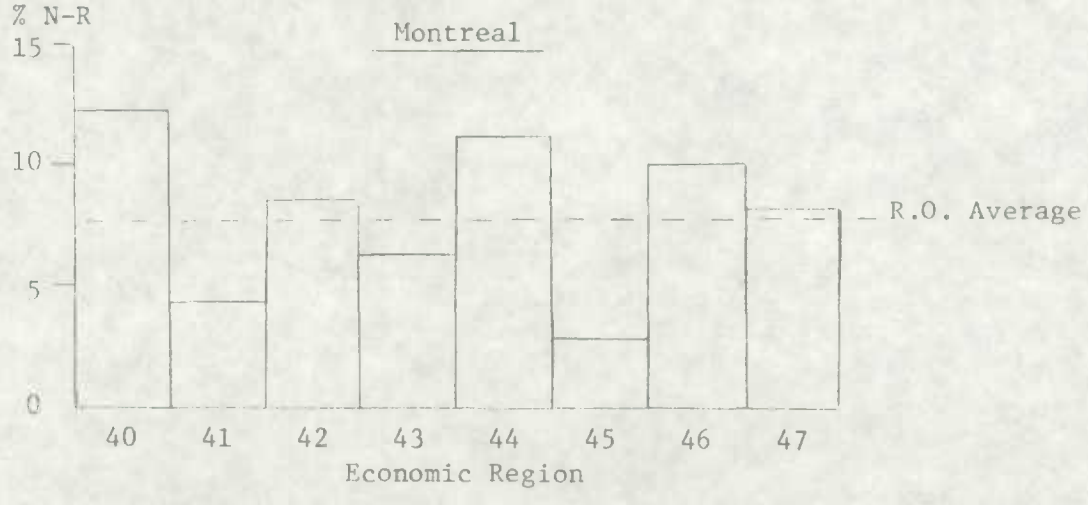
	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.6	1.3	0.3
N1	2.0	2.5	-0.5
N2	2.1	2.0	0.1
Other	2.0	0.6	1.4
Overall	7.7	6.4	1.3

It should be noted, from the above table, that the increase in the overall non-response rate was largely due to the increase in the "Other" component. This increase in the "Other" component was mainly due to the fact that the Labour Force records for 71 households were delayed in the mail and arrived at the regional office too late for processing.

Looking at last year's February rate of 7.2%, this February's overall non-response rate was higher. Differences in non-response at the component levels were as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.6	1.8	-0.2
N1	2.0	2.2	-0.2
N2	2.1	2.4	-0.3
Other	2.0	0.8	1.2
Overall	7.7	7.2	0.5

Note from the above table that while the "T.A.", "N1", and "N2" levels decreased this year, the overall non-response rate increased by 0.5% due to a substantial increase in the "Other" component.



Ottawa

The overall non-response rate for the Ottawa Regional Office increased from 6.3% in January 1974 to 6.7% in February 1974. The non-response rates at the component level changed as follows:

	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.4	1.6	-0.2
N1	3.2	2.1	1.1
N2	1.3	1.2	0.1
Other	0.8	1.4	-0.6
Overall	6.7	6.3	0.4

The only noticeable change at the component level was that of a 1.1% increase for "N1" which caused the overall rate to increase.

Compared with last year's February rate (6.6%), the overall non-response rate for February 1974 was higher. Differences in non-response rates at the component level are given below:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.4	2.8	-1.4
N1	3.2	1.2	2.0
N2	1.3	1.5	-0.2
Other	0.8	1.1	-0.3
Overall	6.7	6.6	0.1

In this case, although there was a large increase in the N1 component, the decreases in the remaining components were large enough that there was no major change in the overall non-response rate this year.

Thus, it is quite evident from the above analysis that the substantial increase in the N1 rate was largely responsible for the higher non-response rate in February 1974. The following tables gives the month to month and year to year changes in the N1 rate by economic region. The figures in brackets gives the actual number of N1 households.

Month to Month Change

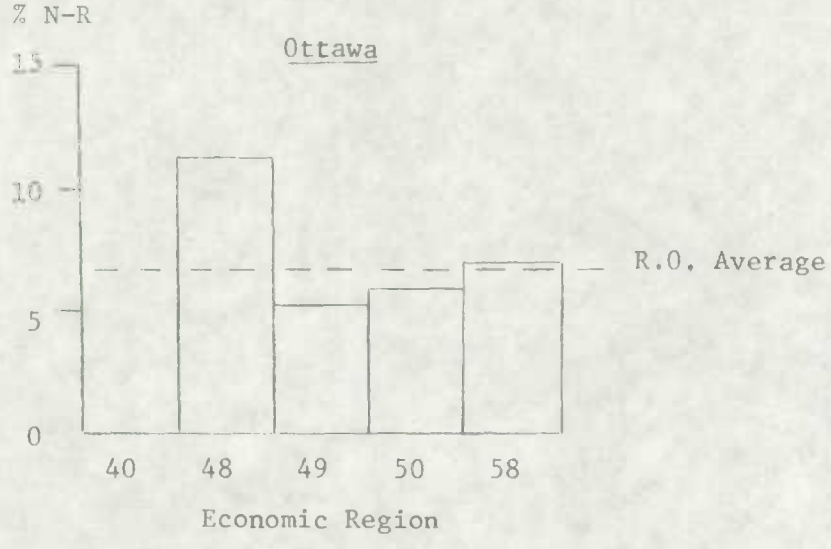
E.R.	February 1974	January 1974	Change (Jan. to Feb.)
40	- (0)	- (0)	- (0)
48	8.1 (20)	2.9 (7)	5.2 (13)
49	3.3 (5)	4.0 (6)	-0.7 (-1)
50	2.0 (22)	1.7 (19)	0.3 (3)
58	3.4 (19)	2.1 (12)	1.3 (7)

Year to Year Change

E.R.	February 1974	February 1973	Change (1973 to 1974)
40	- (0)	- (0)	- (0)
48	8.1 (20)	0.5 (1)	7.6 (19)
49	3.3 (5)	4.3 (6)	-1.0 (-1)
50	2.0 (22)	0.9 (10)	1.1 (12)
58	3.4 (19)	1.5 (8)	1.9 (11)

With respect to the month to month change, substantial increases (in both the N1 rate and the actual number of N1 households) were noted in economic regions 48 and 58.

In regard to the year to change, substantial increases were noted in economic regions 48, 50 and 58.



Toronto

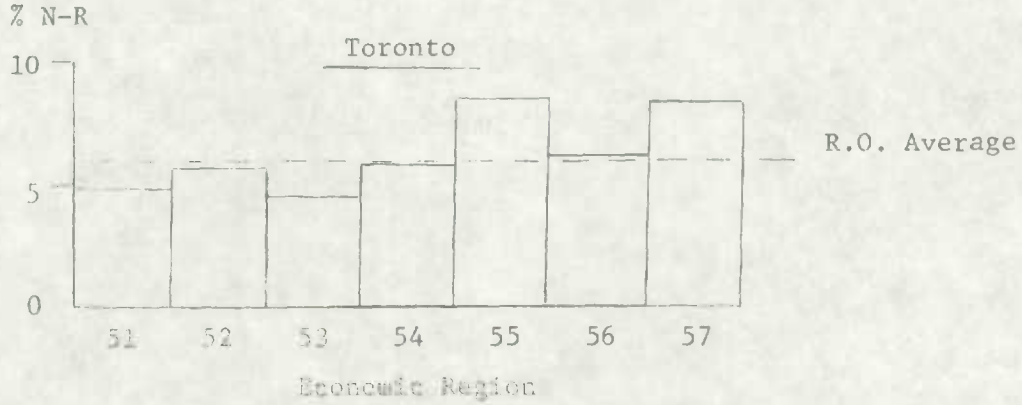
The overall non-response rate for the Toronto Regional Office increased from 5.6% in January 1974 to 6.0% in February 1974. Changes in non-response rates at the component level occurred as follows:

	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	2.5	2.1	0.4
N1	1.3	1.4	-0.1
N2	1.5	1.3	0.2
Other	0.7	0.8	-0.1
Overall	6.0	5.6	0.4

Compare with last year's February rate (6.6%), this year's February rate was lower. The non-response rates at the component level changed as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	2.5	2.6	-0.1
N1	1.3	1.9	-0.6
N2	1.5	1.6	-0.1
Other	0.7	0.5	0.2
Overall	6.0	6.6	-0.6

Note that, from the table, the major contribution to the decrease in this year's overall rate was due to the decrease in the N1 rate.



Winnipeg

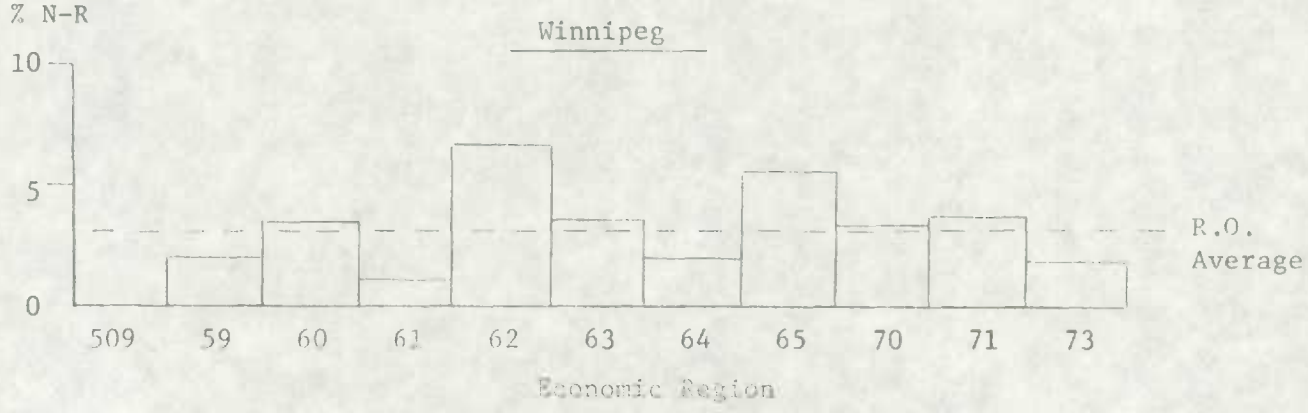
The overall non-response rate for the Winnipeg Regional Office increased from 2.6% in January 1974 to 3.0% in February 1974. Differences in non-response rates at the component level are listed as follows:

	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.5	1.5	-
N1	0.7	0.4	0.3
N2	0.6	0.6	-
Other	0.2	0.1	0.1
Overall	3.0	2.6	0.4

It is evident, from the above table, that the increase in the overall rate is due to the increases in the N1 and "Other" components.

Compared with last year's February rate (2.9%), this year's February rate was slightly higher. Changes in the components of non-response occurred as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.5	1.5	-
N1	0.7	0.5	0.2
N2	0.6	0.8	-0.2
Other	0.2	0.1	0.1
Overall	3.0	2.9	0.1



Edmonton

The overall non-response rate for the Edmonton Regional Office decreased from 5.7% in January 1974 to 5.0% in February 1974. Changes in non-response rates at the component level occurred as follows:

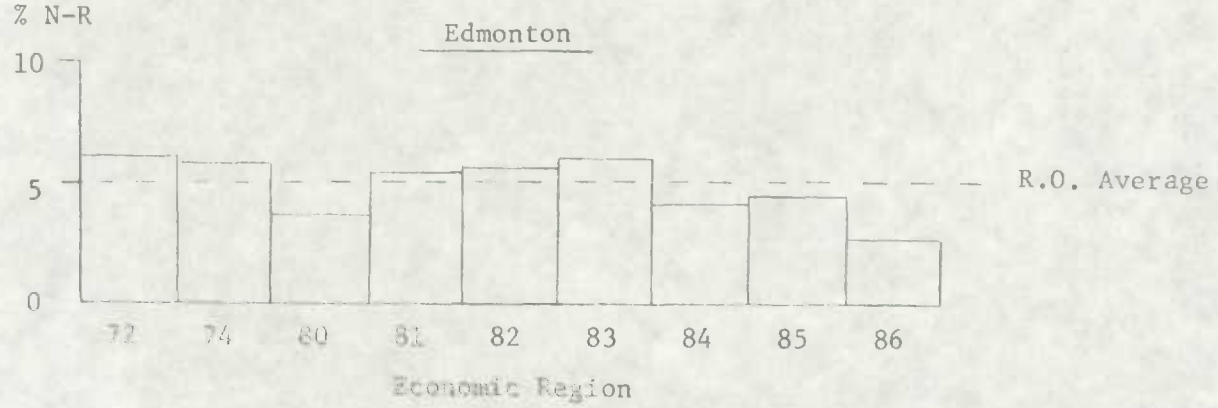
	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	1.9	1.7	0.2
N1	1.2	1.2	-
N2	1.4	1.5	-0.1
Other	0.5	1.3	-0.8
Overall	5.0	5.7	-0.7

From the above table, the decrease in the "Other" component was the main factor in bringing down the overall non-response rate.

This year's February rate (5.0%) compares favourably with the 11.0% overall non-response rate recorded in February 1973. Changes in the components occurred as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	1.9	3.9	-2.0
N1	1.2	2.8	-1.6
N2	1.4	2.3	-0.9
Other	0.5	2.0	-1.5
Overall	5.0	11.0	-6.0

It can be seen that noticeable decreases occurred in all components of non-response. The substantial decrease noted in the above table reflects the concerted effort by the Edmonton Regional Office in reducing non-response rates in recent months.



Vancouver

The overall non-response rate for the Vancouver Regional Office decreased from 8.6% in January 1974 to 8.4% in February 1974. Changes at the component level occurred as follows:

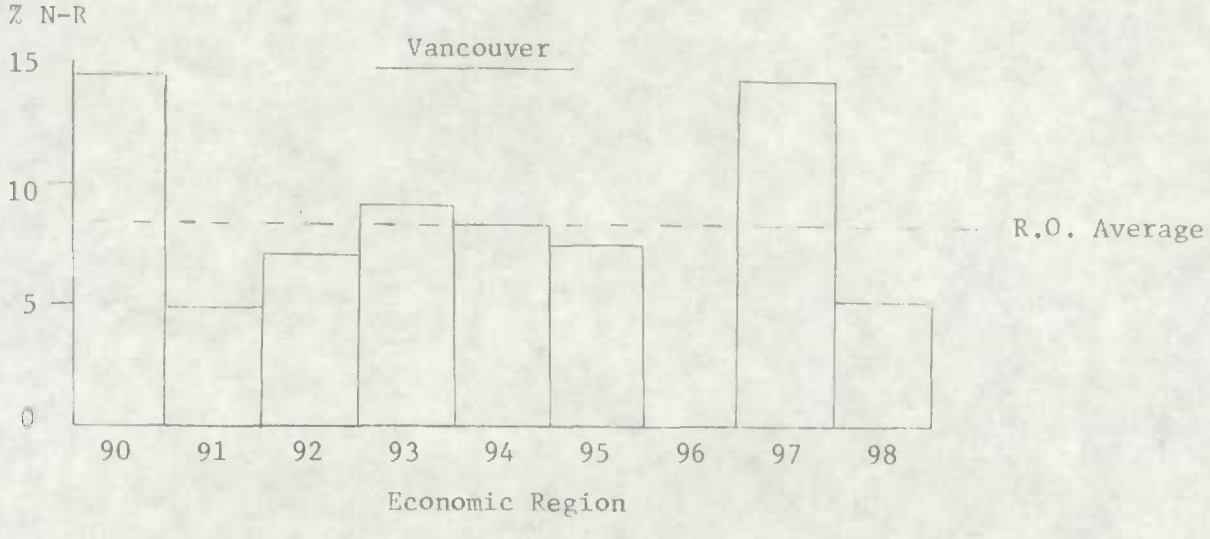
	February 1974	January 1974	Change (Jan. to Feb.)
T.A.	2.4	2.4	-
N1	2.4	1.9	0.5
N2	2.8	2.7	0.1
Other	0.8	1.6	-0.8
Overall	8.4	8.6	-0.2

In this case, the most contributable factor to the decrease in the overall non-response rate was the "Other" component.

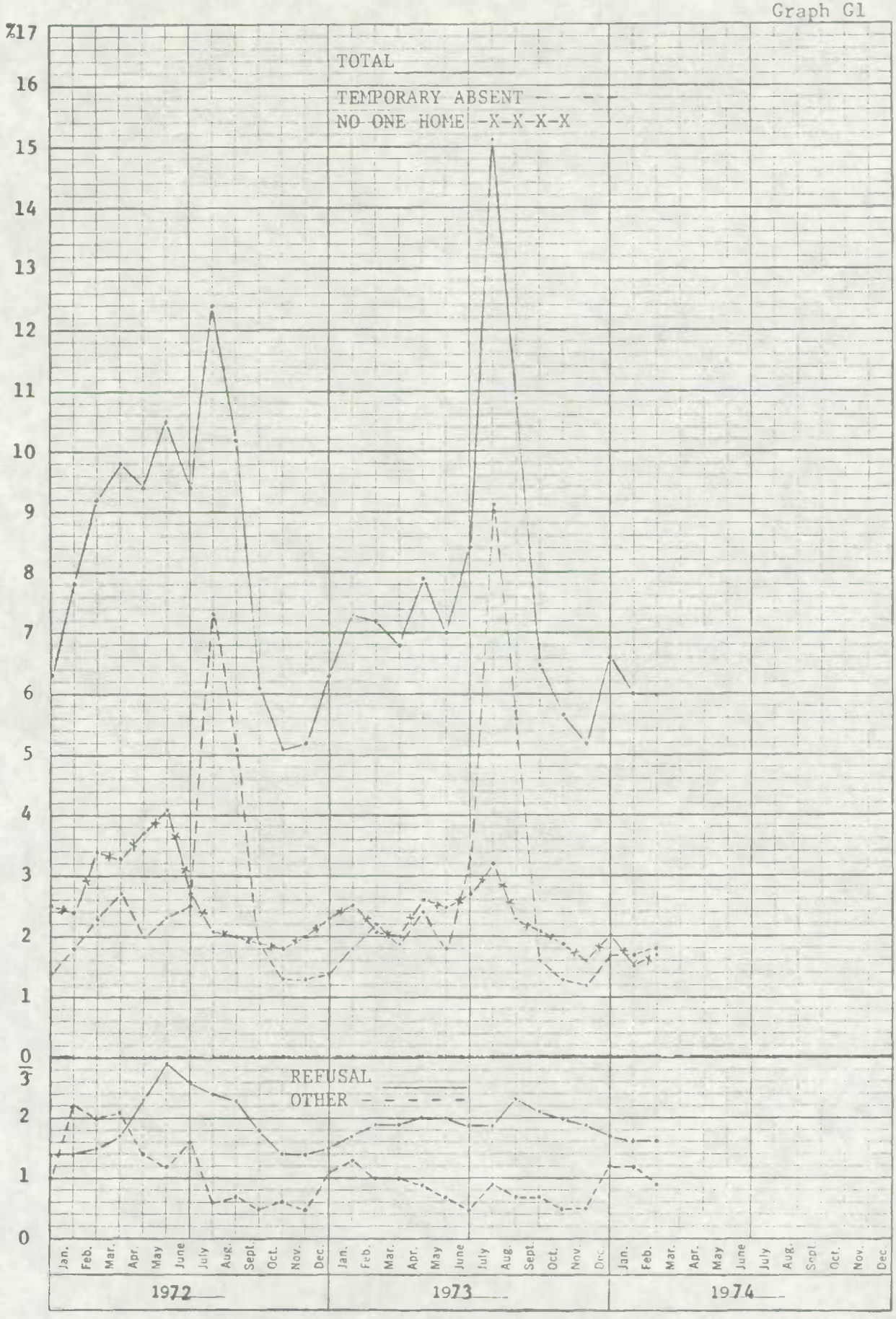
In comparison with the overall non-response rate of February 1973, this year's February rate was lower. The non-response rates at the component level changed as follows:

	February 1974	February 1973	Change (1973 to 1974)
T.A.	2.4	2.2	0.2
N1	2.4	3.8	-1.4
N2	2.8	2.3	0.5
Other	0.8	1.9	-1.1
Overall	8.4	10.2	-1.8

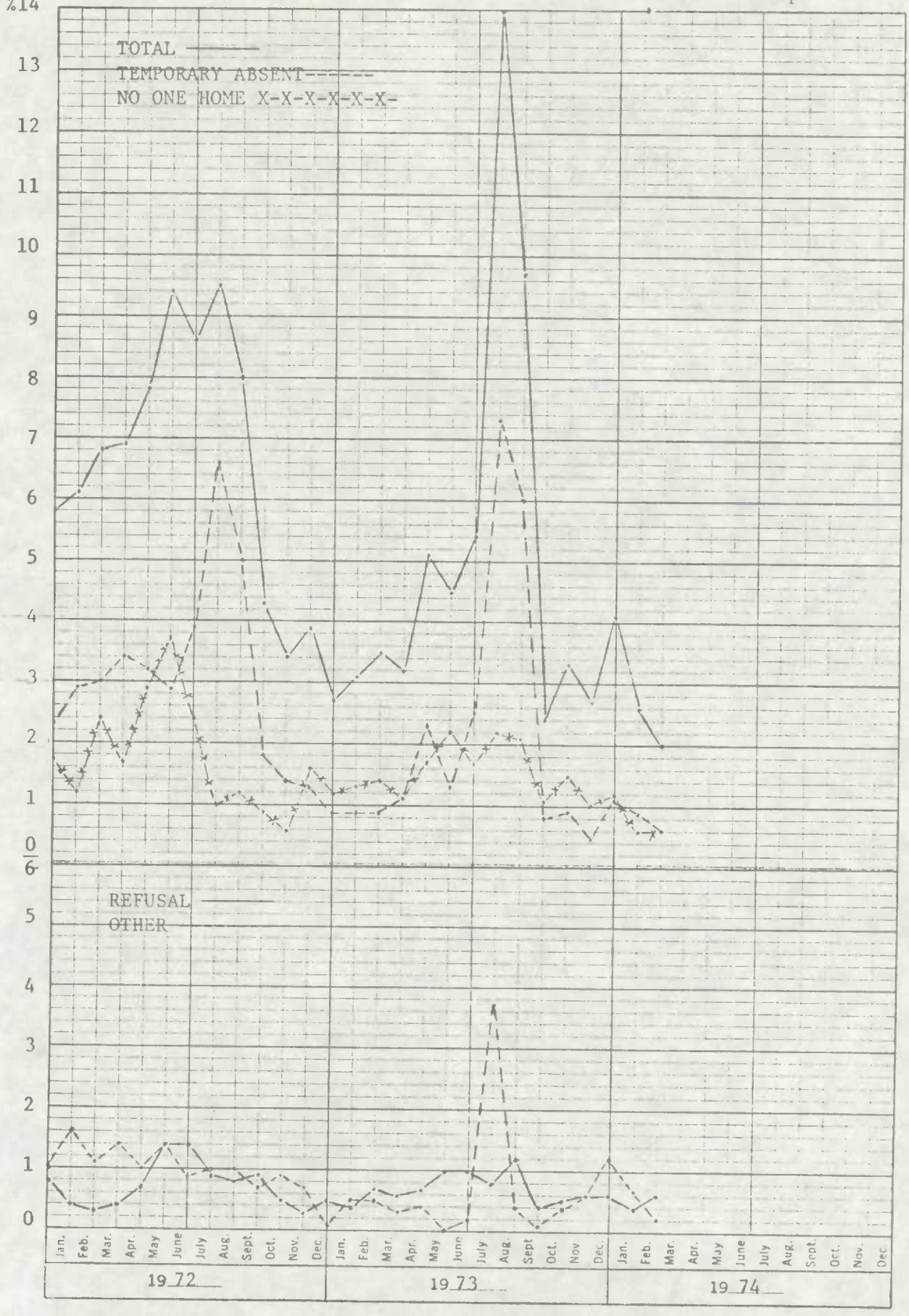
Decreases in the N1 and "Other" components of non-response were responsible for the overall decrease in the non-response rate of one year ago. It should be noted that the high overall refusal rate (2.8%) recorded in February 1974 was mainly due to the unusually high refusal rate (3.5%) in E.R. 94 which contains over one half the total number of households covered by the Vancouver Regional Office.



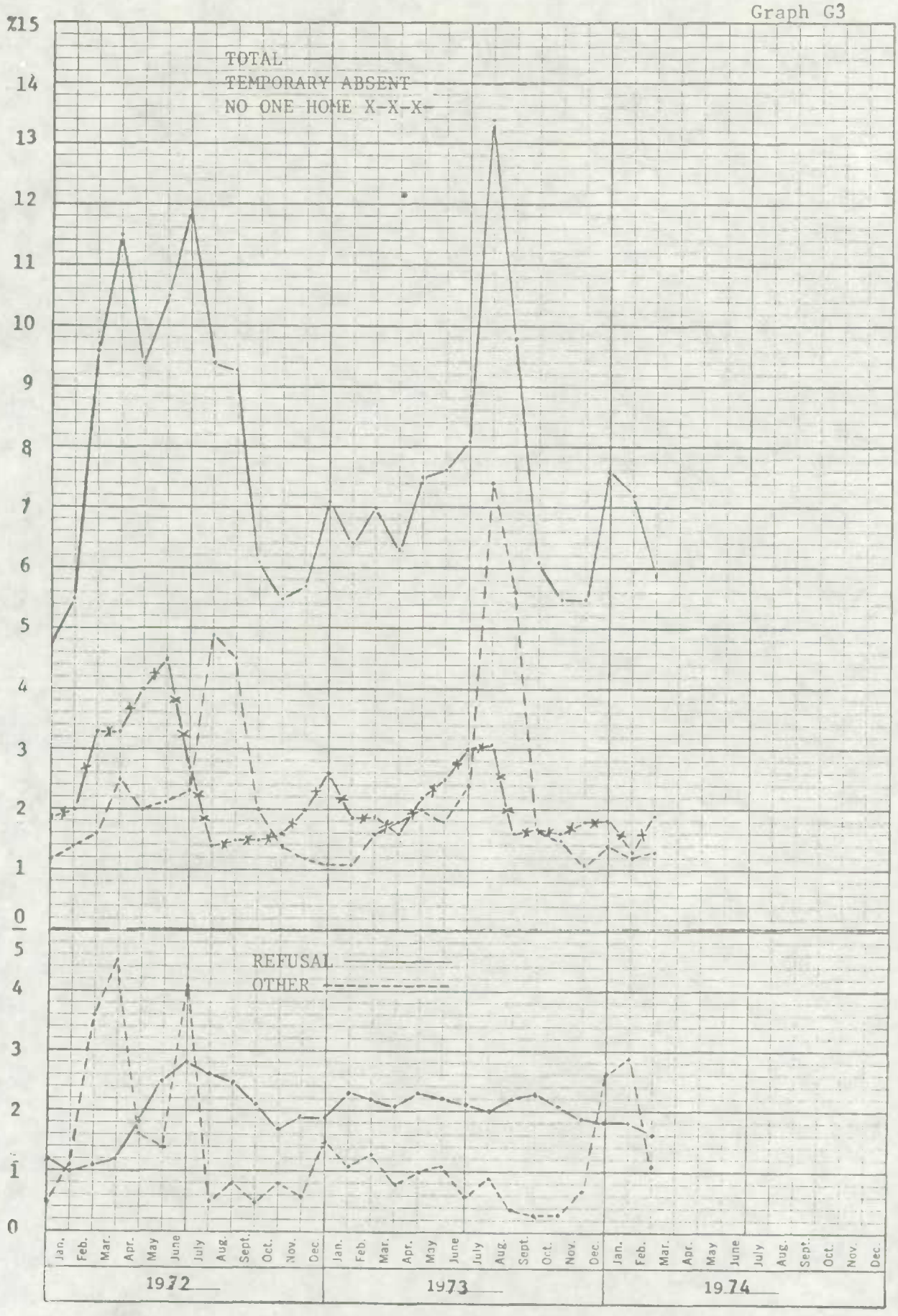
Graph G1

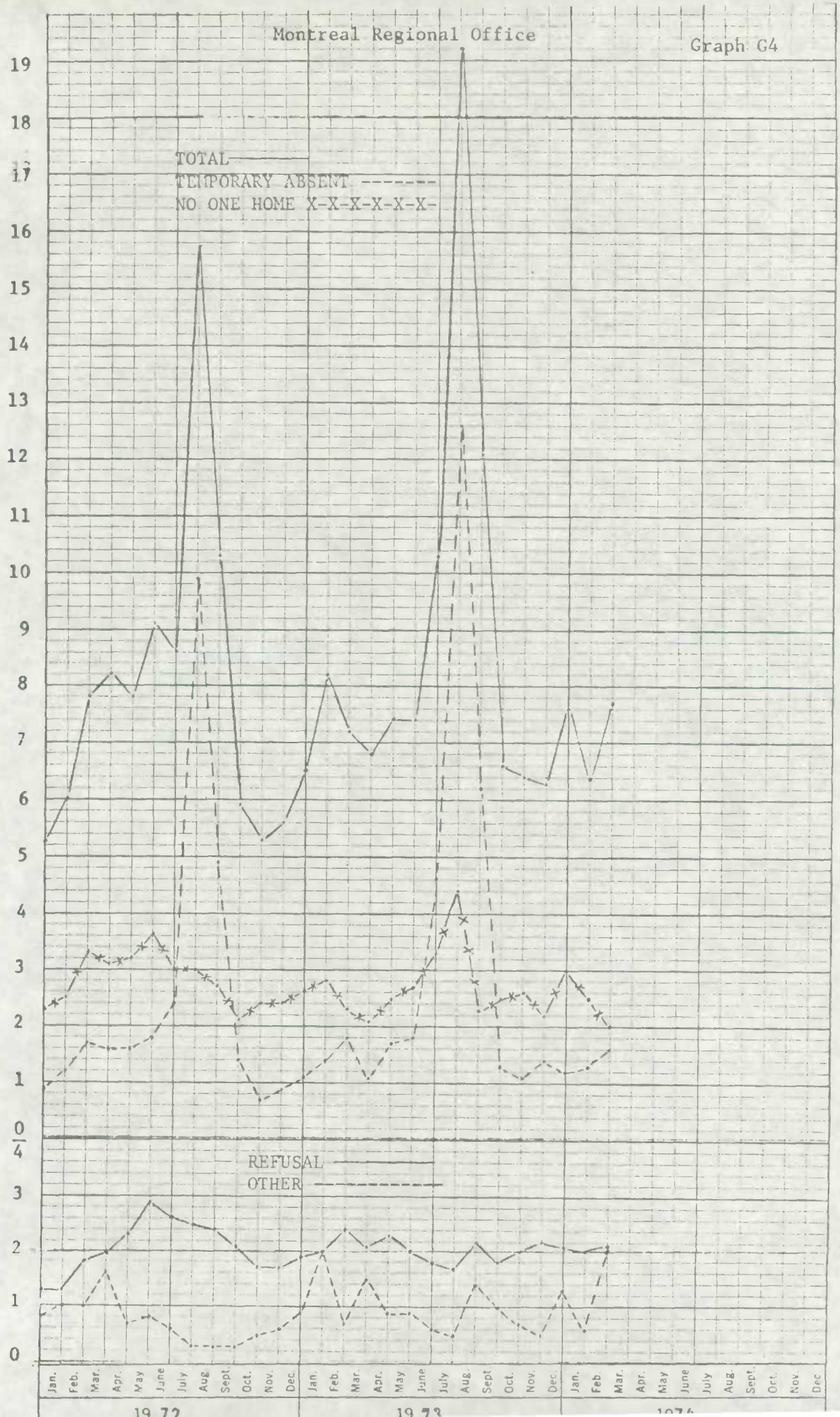


Graph G2



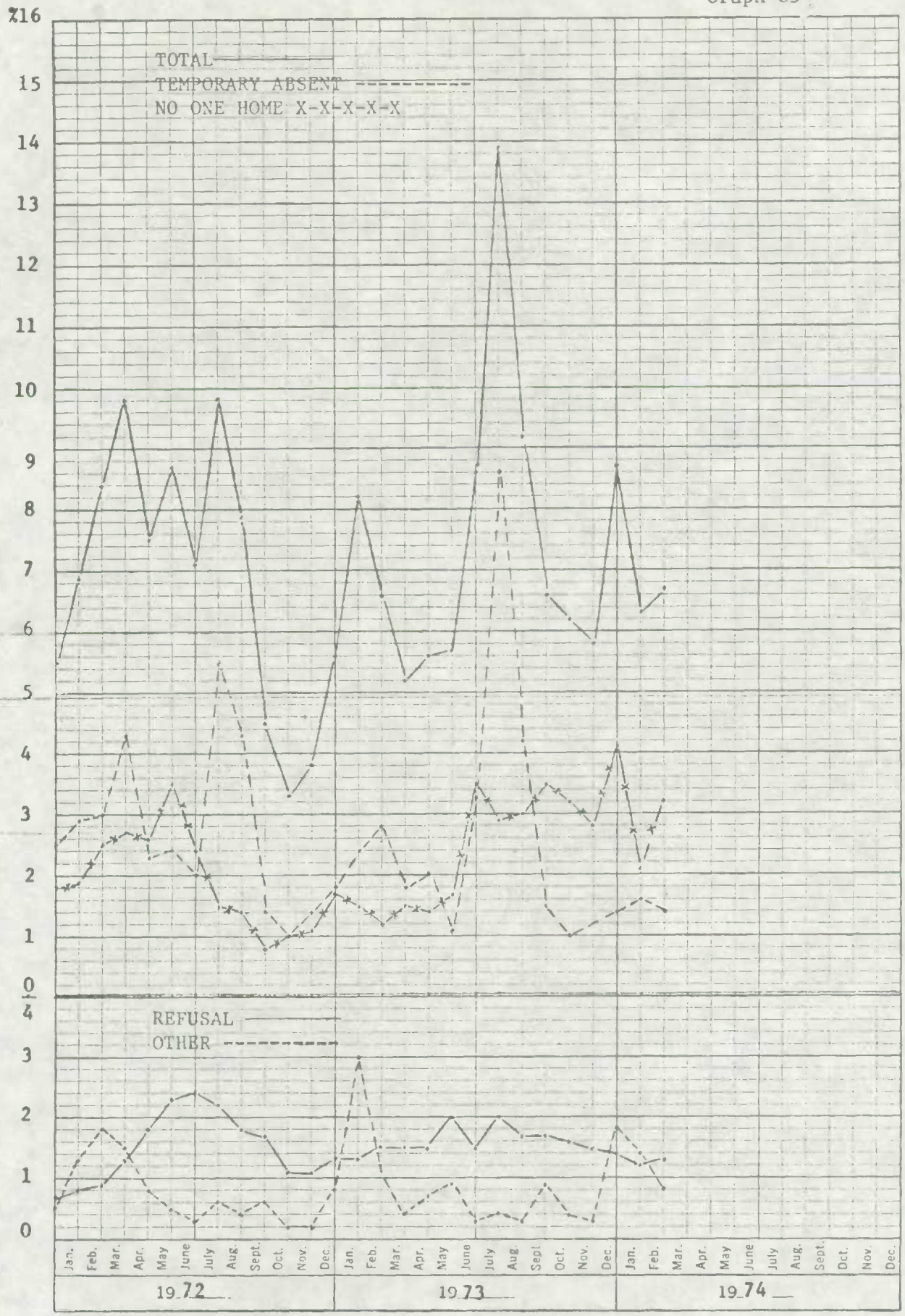
Graph G3





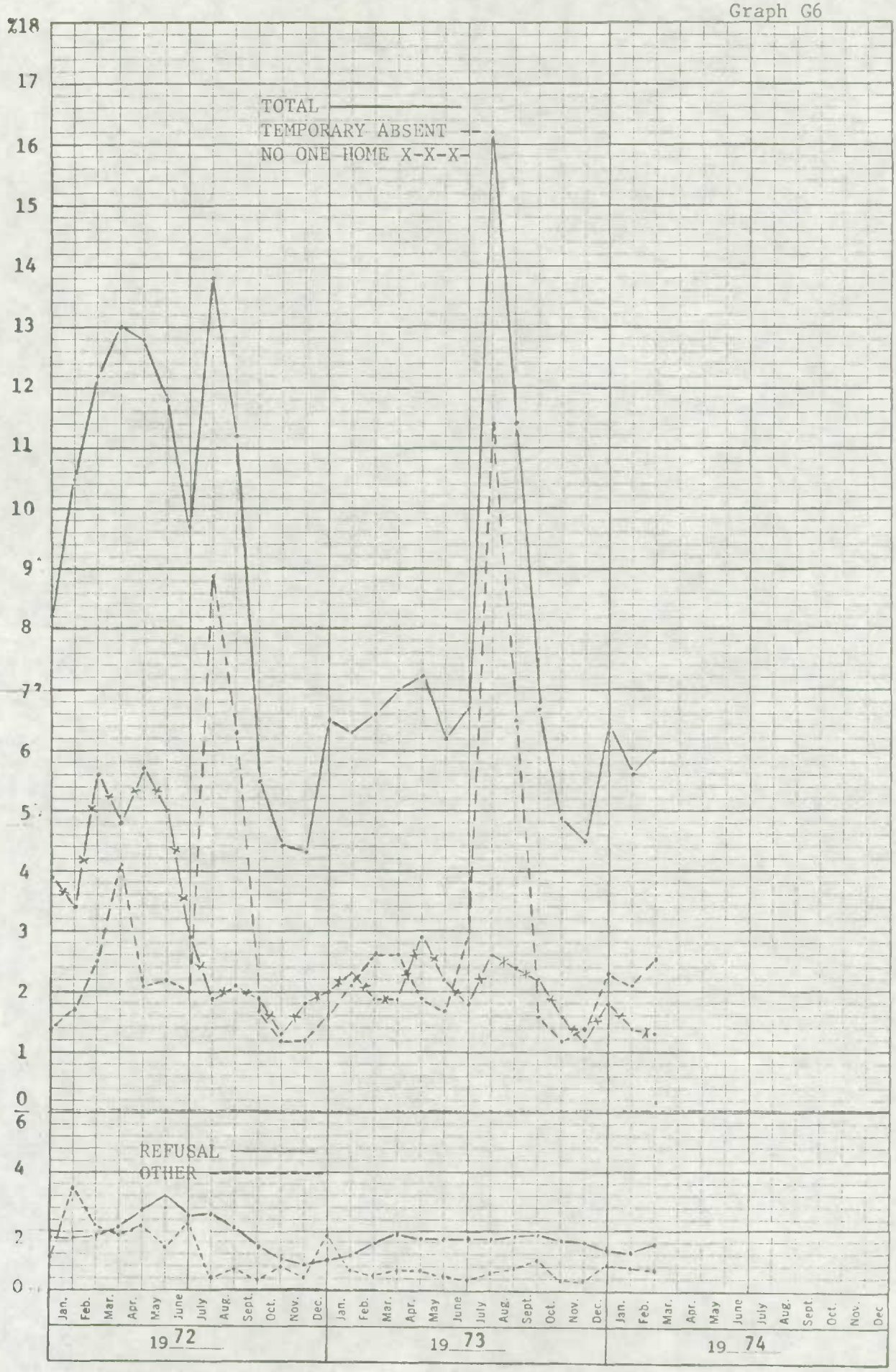
Ottawa Regional Office

Graph G5



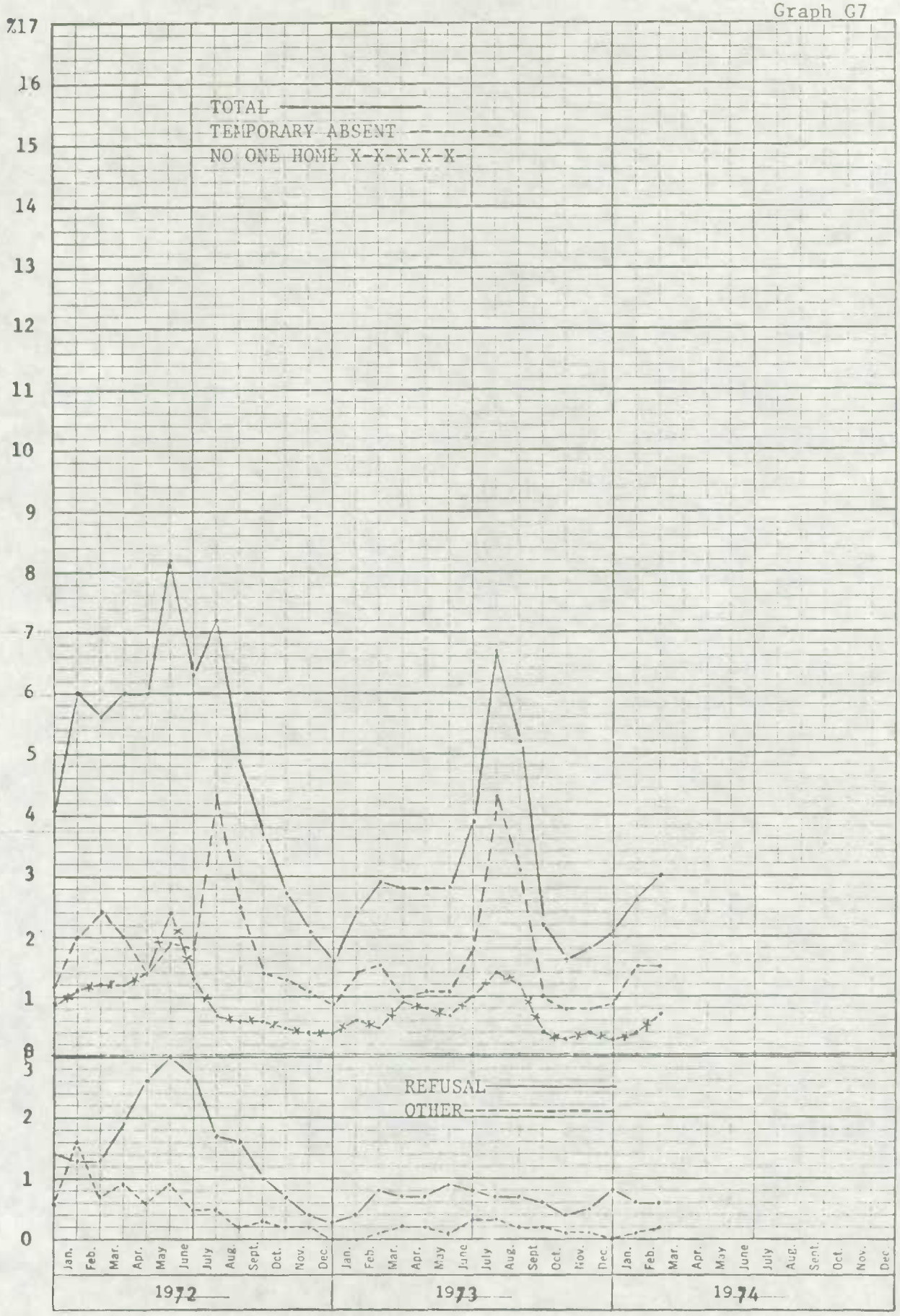
Toronto Regional Office

Graph G6

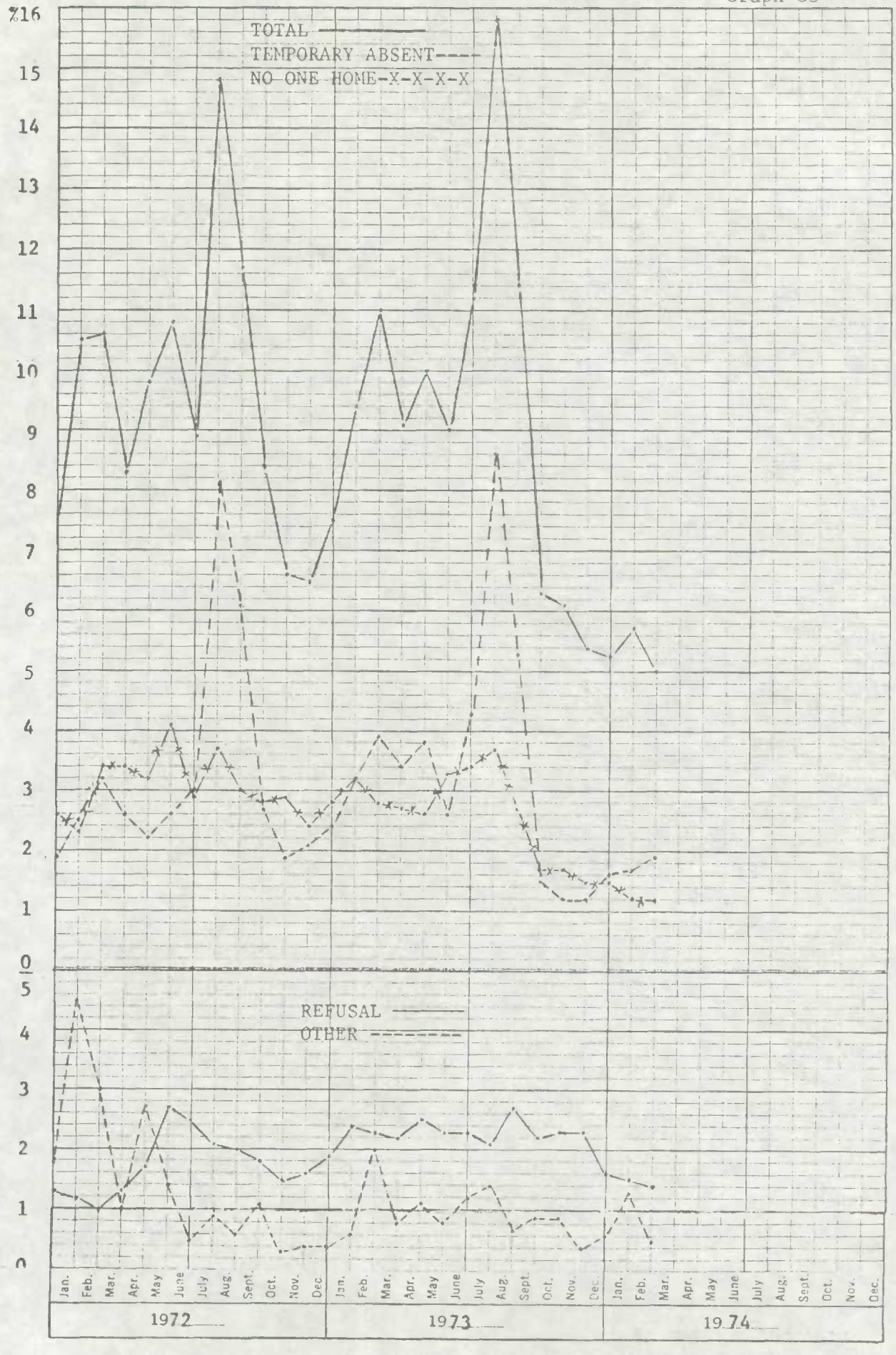


Winnipeg Regional Office

Graph G7



Graph G8



Graph G9

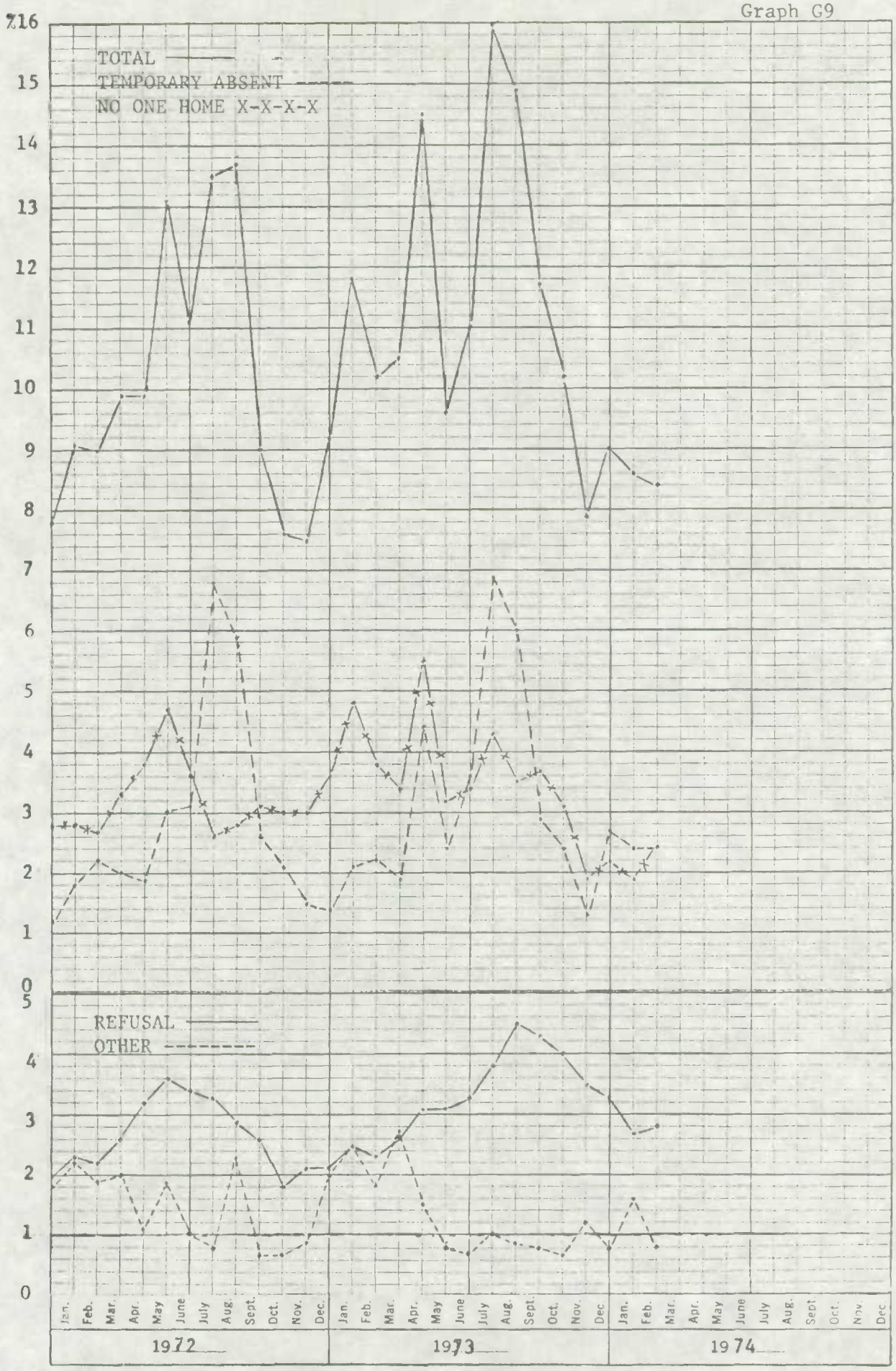


TABLE 1.

February, 1974.

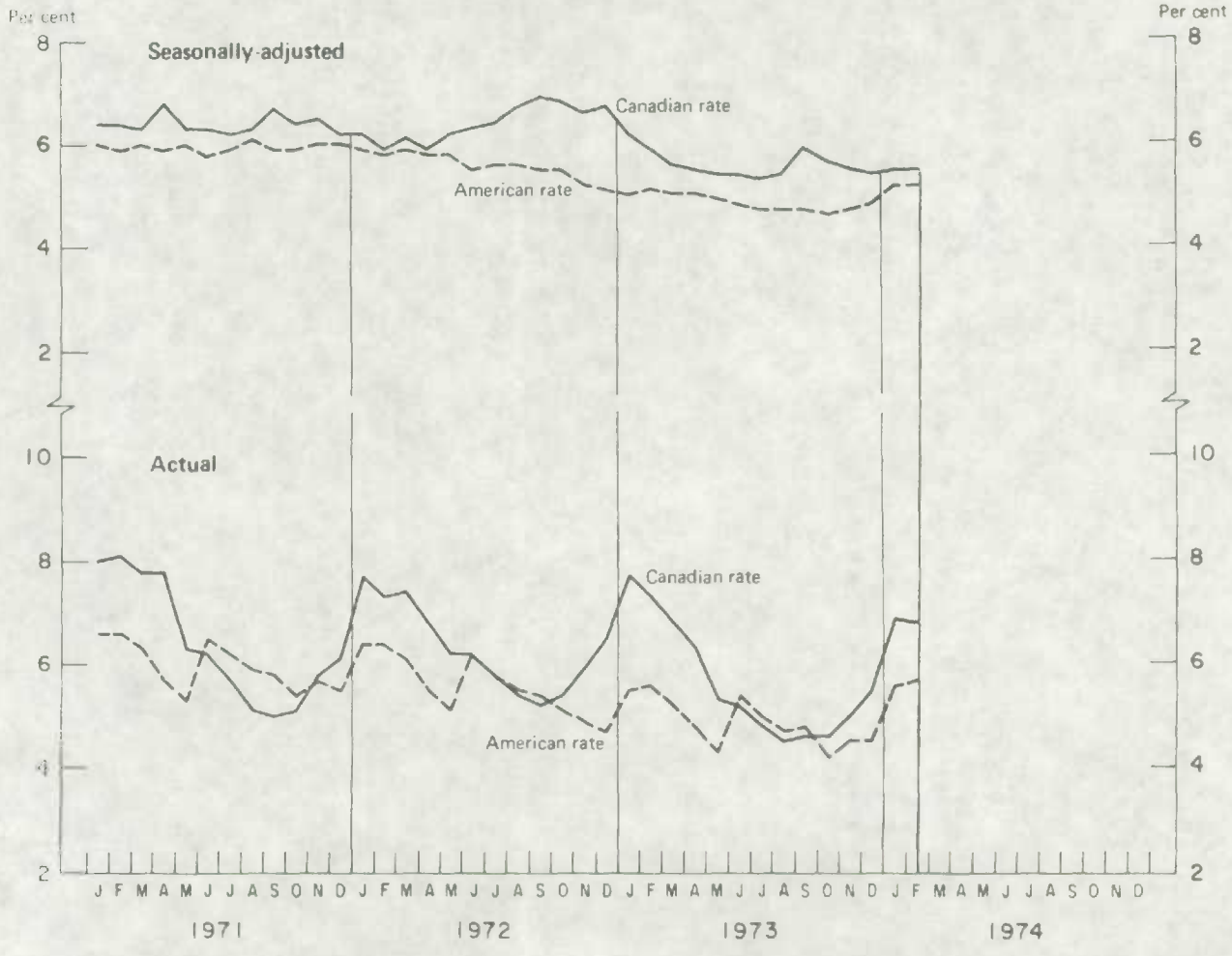
PERCENT NON-RESPONSE RATES BY COMPONENT, CANADA, AND EIGHT REGIONAL OFFICES.

Office(s)	Overall	T.A.	N.1.	N.2.	Others
Canada	6.0	1.8	1.7	1.6	0.9
St. John's	2.0	0.6	0.6	0.6	0.2
Halifax	5.9	1.3	1.9	1.6	1.1
Montreal	7.7	1.6	2.0	2.1	2.0
Ottawa	6.7	1.4	3.2	1.3	0.8
Toronto	6.0	2.5	1.3	1.5	0.7
Winnipeg	3.0	1.5	0.7	0.6	0.2
Edmonton	5.0	1.9	1.2	1.4	0.5
Vancouver	8.4	2.4	2.4	2.8	0.8

Comparison of Canadian and American Unemployment Rates
February 1973 to February 1974

	Seasonally-Adjusted		Actual	
	Canadian	American	Canadian	American
February	5.5	5.2	6.8	5.7
1974 - January	5.5	5.2	6.9	5.6
December	5.4	4.8	5.5	4.5
November	5.5	4.7	5.0	4.5
October	5.6	4.6	4.6	4.2
Septembre	5.9	4.7	4.6	4.8
August	5.4	4.7	4.5	4.7
July	5.3	4.7	4.8	5.0
June	5.4	4.8	5.2	5.4
May	5.4	4.9	5.3	4.3
April	5.5	5.0	6.3	4.8
March	5.6	5.0	6.8	5.2
1973 - February	5.9	5.1	7.3	5.6

Comparison of Canadian and American Unemployment Rates by Month, January 1971 to Date

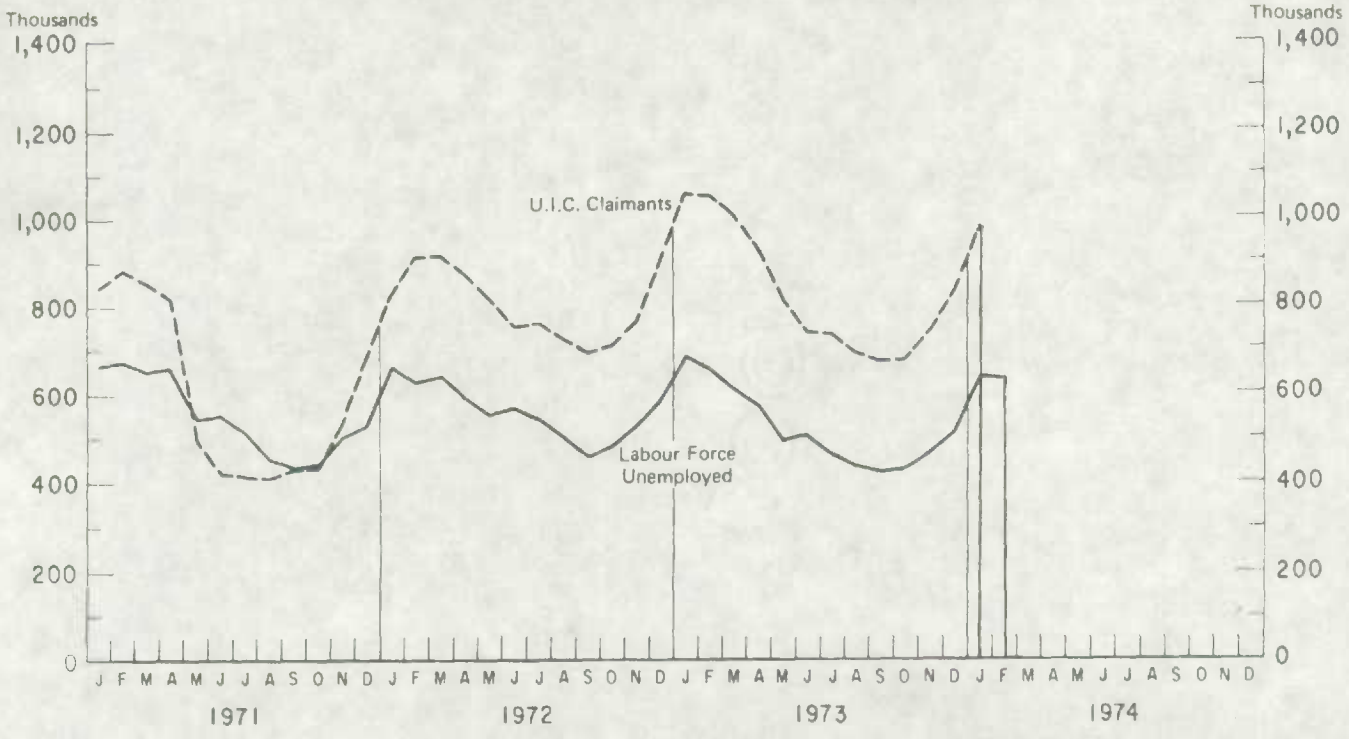


Comparison of LFS Unemployed and UIC Claimants Series
January 1973 to date

	LFS Unemployed (000's)	UIC Claimants (000's)	Ratio Claimants / Unemployed		LFS Unemployed (000's)	UIC Claimants (000's)	Ratio Claimants / Unemployed
1974				1973			
December				December	512	835	1.63
November				November	468	744	1.59
October				October	429	677	1.58
September				September	421	676	1.61
August				August	433	691	1.60
July				July	461	733	1.59
June				June	503	739	1.47
May				May	493	810	1.64
April				April	570	921	1.62
March				March	608	1,003	1.65
February	635			February	655	1,055	1.61
January	637	981	1.54	January	688	1,056	1.53

Note: It is difficult to draw any conclusion when comparing the LFS and UIC data due to conceptual differences. See Appendix III of the April issue of this report.

Comparison of Labour Force Unemployed and Unemployment Insurance Claimants by Month, January 1971 to Date



Unemployment rate represents the number unemployed as a per cent of the civilian labour force.

Canadian civilian Labour Force, in the Labour Force Survey concept, is composed of that portion of the civilian non-institutional population 14 years of age and over who, during the reference week, were employed or unemployed.

American civilian Labour Force, in the Current Population Survey concept, is composed of that portion of the civilian non-institutional population 16 years of age and over who, during the reference week (which contains the 12th day of the month), were employed or unemployed.

List of some differences in the concepts of claimants and unemployed

UIC	LF unemployed
- need to have worked at least 8 weeks in past year to be eligible	- does not need to have worked before
- interruption of earnings resulting from unemployment, illness or pregnancy	- activity concept: (1) did not work, (2) actively searched for a job, and (3) was able to work
- must be capable of and available for work and unable to obtain suitable employment (except in case of illness and pregnancy)	
- contribution and benefit entitlement ceases for a person: (a) at the age of 70, or (b) to whom a retirement pension under the Canada Pension Plan or the Quebec Pension Plan has at any time become payable	- no upper age boundaries. See activity concept.
- claimants can work and be eligible for total benefit if weekly earnings do not exceed one quarter of weekly rate of benefit; work-related income in excess of 25% of weekly rate is deducted from benefit.	- unemployed cannot have worked worked a single hour in reference week