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NATIONAL CENSUS TEST

Report No. 27

Analysis of Interviewer Debriefing
Questionnaires and Mail Response Rates

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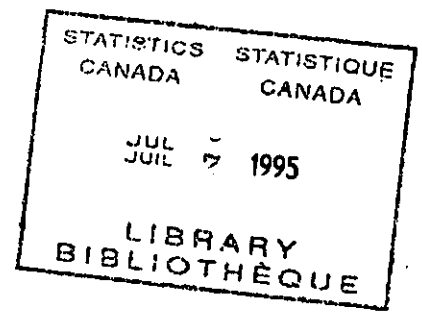
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Report No. 27

**Analysis of Interviewer Debriefing
Questionnaires and Mail Response Rates**

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1996 Census Content Determination Project

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Executive Summary

- Interviewers observed that many respondents did not follow skip patterns on the questionnaire and tended to ignore questions that appeared not to apply to them. Respondent frustration was exacerbated by the perceived repetitiveness of questions in certain areas and this "repetitive question fatigue" is reflected in patterns of non-response rates for the NCT.
- Interviewers also feel that respondents were less likely to answer questions if they are not aware of, or misconstrue, the data requirement. This presents a dilemma since many respondents did not consult the Guide. In fact, some interviewers feel that many respondents will only do the absolute minimum required in terms of reading questions and instructions.
- The NCT questionnaire was too long and difficult, according to many interviewers. They feel many respondents simply do not understand the concepts and cannot relate to the examples provided. This feeling was more prevalent among experienced interviewers. A complete redesign to achieve a shorter, simpler and less demanding questionnaire should be contemplated for Census 2001.
- According to Survey Operations, the NCT mail response rate was 55.1%. Without a respondent information campaign, the NCT produced lower counts than the 1991 Census for difficult to enumerate groups, such as new Canadians. Based on the interviewers' Control Sheet information, the mail response rate was 15 percentage points higher for the LFS sample than for the Special Population sample.
- It is important to note that contact with the respondent at drop-off increased the likelihood of a mail-back response. If contact was made during drop-off, the mail response rate improved by over 12%, according to the Control Sheet information. In preparation for a Centralized Edit collection regime, strategies to improve the mail response rate will have to be examined, especially in the area of communications.

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1. Introduction

In preparing for the 1996 Census of Population, Statistics Canada conducted a test of the proposed questionnaire content and of selected field procedures and support activities in November of 1993. As part of this National Census Test (NCT), a debriefing program was designed to solicit from the field staff an appraisal of the questionnaire and field procedures. Interviewers are on the "front lines" of data collection, a unique position to provide feedback on the questionnaire and testing procedures. The interviewer debriefing program consisted of two integral components. The first consisted of discussion sessions attended by field staff and Head Office representatives. NCT Report 5 (Interviewer Debriefing Report) documents the germane points and issues raised during these discussions.

The second component of the debriefing program was an Interviewer Debriefing Questionnaire completed by Interviewers and Senior Interviewers upon the conclusion of their assignments (see Appendix A). This questionnaire, however, was distributed prior to data collection to encourage meaningful participation through an awareness of the debriefing program. The first section of this report provides an overview of these questionnaires. While the NCT can assess selected field procedures and support activities, it is virtually impossible to replicate the Census ambience as part of the testing environment. The second part of this report examines the mail-back response rates for the NCT using the interviewer Control Sheets captured and appended to the household data files.

2. Interviewer Debriefing Questionnaires

A total of 263 debriefing questionnaires were captured in Head Office and the frequencies for each question are contained in Appendix B. There were only two fields from the questionnaire which were able to generate breakdown variables (Table 1). The Regional Office and Sample Component variables are derived from the Assignment Number field and the Interviewer Experience variable is generated directly from the "Completed by" question. However, it is not possible to differentiate between Interviewers and Senior Interviewers from the Assignment Numbers.

There was some variation in Interviewer Experience by Regional Office (RO). The percentage of first-time interviewers was 11.1% in Montréal and 14.3% in St. John's while it was highest at 38.1% in Vancouver. The other ROs hovered around the average of 24% first-time interviewers. Each of the questions was broken down by the three variables in Table 1. The discussions which follow will only refer to variation by these three variables if the differences were found to be both substantive and statistically significant at the 95% level of confidence.

Table 1
Breakdown Variables

<i>N</i> = 263 [1]	<i>f</i>	(%)
Regional Office		
St. John's	9	3.4
Halifax	63	24.0
Montréal	55	20.9
Sturgeon Falls	19	7.2
Toronto	32	12.2
Edmonton	41	15.6
Vancouver	23	8.7
(unknown) [2]	21	8.0
Sample Component		
LFS Rotations [2]	238	90.5
Special Population	25	9.5
Interviewer Experience		
First-Time	63	24.0
Experienced	178	67.7
(not reported)	22	8.4

- [1] Of 292 interviewers and 29 senior interviewers, 263 Interviewer Debriefing Questionnaires were completed and captured. It is important to note that some interviewers had more than one assignment. There are 308 unique assignment numbers on the household data files.
- [2] There were 21 cases in which the Assignment Number was invalid and these assignments are included with LFS rotations for the Sample Component.

It is important to recognize in interpreting the debriefing questionnaires that interviewers formed opinions regarding most issues based on either personal or telephone follow-up with respondents. These respondents are likely to be more representative of uncooperative sample households. Moreover, in many cases interviewers would complete the NCT questionnaire over the telephone. The NCT questionnaire was not designed to be an interviewer-administered survey but rather a respondent-completed survey. This report will

cite two non-response rates from NCT Report 10 (Edit Failure and Response Rates). The "before" follow-up rate is based on a sample of questionnaires captured before field edit for the Edit Failure Study (EFS). The "after" follow-up rate will refer to the Labour Force Survey (LFS) weighted non-response. In both cases, the "definite" non-response rate is used.

Questionnaire Design

According to most interviewers, the "Step" process seemed to work well and the questionnaire was easy for respondents to follow. However, close to 50% of the interviewers responded that the skip patterns were not clear. This problem is well documented by other NCT Reports including Report 5 (Interviewer Debriefing Report) and Report 9 (Evaluation of Design and Layout).

About one half of the interviewers responded that they had rephrased the questions to make them simpler or discussed the question meanings with respondents. Experienced interviewers were more likely to have done so than were their first-time counterparts. It should be noted that, during training, interviewers were instructed to read the question as it was written on the NCT questionnaire. When completing questionnaires for respondents, the likelihood of interviewers asking all the questions down the page for one person at a time or asking the questions across the page for all persons at the same time was more or less the same. In at least one instance, an interviewer completed Questions 1 to 28 across the page for all persons and then asked Questions 28 to 46 down the page for one person at a time.

Front Page

Nearly 30% of interviewers reported getting a reaction to the front cover message on the NCT. Most of these reactions concerned the mandatory nature of the NCT and the penalty for non-compliance. There was also much distrust regarding the confidentiality of the questionnaire. Almost one in five interviewers provided a suggestion to improve the front cover. Many suggestions mentioned the need for space on the questionnaire to record follow-up procedures. It appeared that many respondents misinterpreted "November 8" as a deadline and often discarded the questionnaire after the date had passed.

Coverage-Related Questions (Steps 2 to 6)

Over 20% of interviewers reported respondent difficulties regarding whether or not a person should be included as a usual resident. The most frequently cited problems involved the decision of whether to include students who are away at school, lodgers and relatives staying temporarily. NCT Report 11 (Coverage-Related Steps) examines in more detail the problems encountered with these steps.

Family, Demography and Activity Limitations (Questions 2 to 8)

About 42% of interviewers responded that questions in this section of the NCT caused

problems or were difficult for respondents to answer. Many interviewers mentioned respondent frustration with having to complete Questions 5 (Marital Status) and 6 (Common Law) for children under 15 years of age. For Question 7 (Activity Limitations), many interviewers wondered why the same question has to be asked three times. According to NCT Report 10, the before follow-up (EFS) non-response rate increased from 5.4% for Question 7a (Activity Limitation - Home) to 11.4% for Question 7c (Activity Limitation - Other). This is the first example of respondent "repetitive question fatigue" on the questionnaire. One in five interviewers reported that terms in this section of the NCT were not well understood by respondents, most citing the definition of "limited" in Question 7 as the problem. Compared with inexperienced staff, experienced interviewers were more likely to respond that such terms were not well understood.

Language (Questions 9 to 11)

An overwhelming majority of interviewers reported no concerns regarding the language questions on the NCT. Perhaps the only noteworthy comment is that of respondent uncertainty regarding the applicability of these questions to infants.

Socio-Cultural Information (Questions 12 to 20)

This section of the NCT resulted in both problems and negative reactions, according to the interviewers. Over 40% of interviewers reported questions that caused problems or difficulties while 33% indicated they encountered negative reactions. A common concern cited by interviewers was the apparent repetition of NCT Questions 17 (Aboriginal), 19 (Band/First Nation) and 20 (Registered Indian). Many respondents inquired as to why three questions were necessary to identify Aboriginal persons. One interviewer noted that in Question 19, the physical separation between the "Yes" mark-in and the write-in box was too great resulting in many missing write-ins. According to NCT Report 17 (Aboriginal), this is of concern since no other information on the questionnaire can be used for imputation.

Respondents were uncertain of "ethnic or cultural group" in Question 16 (Ancestry) either in terms of their own ancestry or the number of generations to consider. One interviewer mentioned the uncertainty if respondents or their family members were adopted. Frustration also resulted from questions in this section which often did not apply to respondents. For example, many interviewers wondered why respondents who answered "Canadian by Birth" to Question 13 (Citizenship), then had to answer Question 14 (Landed Immigrant). NCT Report 15 (Place of Birth, Citizenship and Immigration) noted the high level of non-response to Question 14 among Canadian Citizens. Interviewers also wondered why a respondent was required to answer NCT Questions 19 and 20 after answering "No" to Question 17 and "White" to Question 18 (Population Group).

Several interviewers commented that many respondents simply skipped Questions 14, 19 and 20 since they did not seem to apply to them and this observation is reflected in the before follow-up (EFS) non-response rates of 6.4%, 6.2% and 7.0% respectively (NCT Report 10).

This concurs with the finding of NCT Report 5 that respondents tend not to answer a question which does not concern them, leading to follow-up. While most interviewers did not report problems with the skip patterns in this section, this is at odds with a finding of NCT Report 17. According to the Report, 55% of respondents indicating "Yes" to Question 17 failed to follow the skip and continued with Question 18.

In terms of negative reactions from respondents, interviewers reported that most were directed at Question 16 (Ancestry). Many respondents wanted to know why this information is collected. This observation confirms the finding of NCT Report 25 (Evaluation of Respondents' Comments) that respondents find Question 16 difficult and objectionable. Significantly fewer negative reactions were directed at Question 18, perhaps because of the accompanying explanatory note. According to NCT Report 10, the before follow-up non-response rate for Question 16 was 12.3% and for Question 18 was 1.7%. These rates were reduced to 3.8% and 0.3% respectively after follow-up.

There was significant variation in reporting negative reactions by Interviewer Experience and Regional Office. Experienced interviewers were more likely to report difficulties with, and negative reactions to, questions in the Socio-cultural information section. In terms of interviewers reporting problems and difficulties, responses ranged from a low of 22% in Sturgeon Falls to a high of 75% in St. John's. As for negative reaction, these questions were less likely to encounter negative reactions in the Montréal, Toronto and Vancouver ROs. Perhaps this is to be expected since these larger urban areas are likely to expose persons to more ethnic diversity, hence the question appears to be more applicable to the respondent population.

As a final note, the NCT found the proportion of immigrants lower than expected compared with the 1991 Census (NCT Report 15). This underscores the importance of a communications program to heighten public awareness. A respondent information campaign targetted at difficult to enumerate groups such as immigrants and non-permanent residents is of particular importance.

Mobility (Questions 21 and 22)

There was nothing that appeared to be controversial or difficult about this section of the NCT questionnaire, according to the interviewers.

Education (Questions 23 to 25)

Approximately 14% of interviewers reported problems with these questions. The vast majority of these problems centre around two issues. First, many respondents reported their highest level of education obtained rather than all of their qualifications. Second, immigrants found the listed qualifications incongruent with what they obtained in other countries. As such, interviewers reported that immigrants often indicated "None" for this question. This issue requires further attention.

Household and Volunteer Activities (Question 26 and 27)

Over 30% of interviewers reported that questions in this section caused both problems and negative reactions. Although the examples provided on the NCT questionnaire were found to be quite helpful, interviewers reported that since most people do not keep track of time spent on these activities, it was extremely difficult and time-consuming to estimate the time spent over the past seven days to answer Question 26 (Household Activities). Dividing Question 26 into four parts simply exacerbated the frustration and, as a result, many respondents simply left 26d blank. According to NCT Report 10, the before follow-up (EFS) non-response rate increased from 5.4% for Question 26a (Unpaid - Housework) to 9.9% for Question 26d (Unpaid - Care/Others). This may be another example of "repetitive question fatigue" on the NCT questionnaire or a reflection of inappropriate response categories.

Interviewers noted that the answers provided by respondents were inconsistently reported. For example, while one respondent would carefully calculate the hours spent caring for their children, another respondent would maintain that caring for children is a 24 hours per day endeavour. Moreover, several interviewers noted this inconsistency when a respondent provided answers for other members of the household (i.e. proxy responses). Such inconsistency calls into question the validity of these data in the statistical sense.

Interviewers reported that many respondents found these questions to be intrusive and questioned the need for collecting such data. Again, this underlies the notion that cooperation is related to an understanding of the data requirement. One interviewer noted that Seniors strongly objected to Question 26c.

While just over 10% of interviewers responded that terms in this section were not well understood by respondents, experienced interviewers were more likely than first-time interviewers to report this observation. Such a difference was also observed for terms used in the Family, Demography and Activity Limitations section. However, it is important to note that experienced interviewers were more likely to have rephrased the NCT questions and to have discussed the meaning of questions with respondents. Such interviewer intervention makes it virtually impossible to distinguish genuine respondent difficulties with designed terminology from the effect of experienced interviewers' perception of and rephrasing of terms and concepts. In these cases, focus group testing may well be a better arbitrator of respondent understanding of terms and concepts.

Labour Market Activities (Questions 28 to 45)

A majority (57.2%) of interviewers reported that questions in this section of the NCT caused problems or were difficult for respondents to answer. It is important to note that this is not a question-specific difficulty. The interviewers reported that respondents find that this section contains a high number of repetitive questions. For example, many interviewers noted the frustration of respondents with Questions 34, 35, 36, 37 and 38. According to NCT Report 10, the before (EFS) and after (LFS weighted) follow-up non-response rates for these

questions were as follows:

- Question 34 (Name of Employer) 9.6% → 2.9%
- Question 35 (Kind of Business) 13.0% → 4.0%
- Question 36 (Industry) 16.0% → 4.2%
- Question 37 (Kind of Work) 12.1% → 3.0%
- Question 38 (Important Duties) 19.0% → 6.2% .

This is another example of "repetitive question fatigue" in that respondents are less receptive to the second and subsequent questions aimed at the same perceived concept (industry and occupation in this case). While it is difficult to precisely quantify the impact of such apparent respondent fatigue on follow-up, the before (EFS) follow-up non-response rates for these questions indicate that they contributed significantly to edit failure.

Many interviewers commented on the level of language used in this section and wondered how Statistics Canada could expect people to understand the questions and relate to the categories and examples provided. For example, the second write-in block for Question 34 was more often than not left blank by respondents. NCT Report 8 (Rapport sur le niveau de langue des questionnaires) examines the level of language concern and finds that labour market questions, while difficult, are less so than the education and income questions in both official languages. It is important to note that NCT Report 8 measures the level of language as a function of the grammatical structure of the text irrespective of the sequence of questions length or the skip patterns contained therein.

The Labour Market Activities section appeared to result in some confusion and frustration for respondents. Several interviewers noted that many respondents simply stopped completing the questionnaire in this section, resulting in the need for interviewer follow-up; a point raised in NCT Report 5. While over 30% of interviewers encountered negative reactions from respondents to questions in this section, there is no single question or series of questions which attracted this reaction. It is important to note that, compared with the LFS sample, interviewers working with Special Population assignments were more likely to report problems/difficulties and negative reactions.

Most interviewers (53.6%) reported that respondents failed to correctly follow the skip patterns in the Labour Market section. Many respondents missed the skip in Question 28 (Hours Worked for Pay) while others entered "0" hours in the write-in box and erroneously followed the skip. Several interviewers suggested that reversing the write-in box and the "None" mark-in circle in Question 28 would improve the situation. Other interviewers wondered why there is no mark-in circle to steer retired seniors around some of these questions since seniors found answering Questions 28 to 33 frustrating. Moreover, given the problem respondents had following skip patterns, many respondents, including seniors, would have inadvertently missed the skip in Question 33.

NCT Report 21 (Labour Market Activities) examined the comments provided by households

in Step 10 and concludes that the three main areas of concern are the frustration of retired persons with Questions 38-45, the confusion over skip instructions and the difficulty for multiple job holders. These problems are likely to become more prevalent as the population ages and as non-traditional patterns of education and labour force participation grow (e.g. part-time, multiple jobs, semi-retirement). Although this section appears to have resulted in difficulties for respondents according to the interviewers, NCT Report 25, which examined respondents' comments on the NCT, seems not to have registered a similar level of concern for several reasons. To begin, there is no single "target" question in the Labour Market Activities section which is identified by respondents as being difficult and/or objectionable.

Moreover, the Labour Market Activities section is followed by Question 46 (Income) which tends to attract a higher level of negative reaction and occurs just prior to respondents completing Step 10 of the NCT questionnaire. Finally, interviewers noted that many respondents failed to register their concerns by not completing Step 10. However, these observations do not lessen the problems cited in this report. It would appear that a complete redesign of the Labour Market Activities section should be contemplated for the 2001 Census to reduce respondent burden. If successful, this redesign could reduce the incidence of follow-up and processing contingencies which should, concomitantly, improve data quality. Such a redesign should include a filter question to identify individual situations so that certain respondent groups (i.e. retired seniors) would be directed to specific questions.

Income (Question 46)

A clear majority (63.6%) of interviewers indicated that respondents had difficulties with the income question. This ranged from a low of 44% in the Sturgeon Falls RO to a high of 78% in the Vancouver RO. A vast majority (95%) of interviewers reported encountering negative reactions to this question from respondents. Experienced interviewers were more likely than were first-time interviewers to report such a respondent reaction. The difficulties with, and objections to, this question are well documented (see NCT Report 25 for example). They are also reflected in the NCT non-response rates. The before (EFS) follow-up non-response rate for income components ranged from a low of 23.6% for Question 46a (Wages & Salaries) to a high of 32.5% for Question 46j (Other Income). These rates were reduced by follow-up to 11.3% and 18.4% respectively (LFS weighted).

Dwelling (Question 47 and 48)

According to the interviewers, this section of the NCT questionnaire did not generate a significant number of difficulties or negative reactions.

Field Operations

The 42.5% of interviewers reporting that respondents wanted to complete the questionnaire during drop-off indicated that an average of just over 5 respondents per assignment did so. Compared with new staff, experienced interviewers were more likely to have made this

observation. Again, the cohort of experienced interviewers appears to be perceiving respondent behaviour differently than did their first-time counterparts. An overwhelming majority of interviewers found the pictures and definitions of dwelling codes to be helpful and easily understood. Interviewers in the Montréal, Toronto and Vancouver ROs were less likely to use the Dwelling Type Chart on the reference card.

Most interviewers referred to the Interviewer's Manual during enumeration and found it easy to understand and the answers relatively quick to find. A majority also did not find the procedural definitions confusing and found the edit steps easy to understand and the rules for determining follow-up requirements clear. However, close to 40% of interviewers made suggestions that they felt would make the manual a better reference tool and easier to use. The most frequent suggestion was the use of some kind of index or colour-coded tabs to improve accessing the manual's contents. While several interviewers suggested changing the sequence to improve the manual, one interviewer stated that familiarity, regardless of the sequencing, is a prerequisite for the manual's effectiveness.

A slight majority of interviewers favoured completing the editing for one person at a time rather than on a question-by-question basis. One half of the interviewers indicated that they referred to the edit steps at the beginning while editing questionnaires. One interviewer insisted on contact both at drop-off and pick-up so that editing could be done with the respondents present. There was variation by Regional Office in the response to these questions, perhaps reflecting differences in training. Finally, 42% of interviewers reported that other tools would have helped them do a better job. The most frequently mentioned item was to improve the maps used in the field. NCT Report 6 (Evaluation of Field Collection Procedures) examines many of these issues in greater detail.

Other Comments

Of the 263 questionnaires received by Head Office, 202 included "other comments". However, many of these comments were not always directed at the NCT questionnaire *per se*. The comments ranged from suggestions for the construction of specific assignment areas in Regional Offices to an expression of appreciation to Pamela White for her visit with interviewers and her attentiveness to their concerns. Of the themes that tended to recur, they can be divided into test-specific and other comments.

Test-specific comments tend to be concerns or suggestions arising from the fact the NCT was a survey and not an actual census. For example, the use of an introductory letter explaining the NCT and its mandatory nature would have been useful when contact was not made during drop-off. This letter should also mention that follow-up occurs if the questionnaire is not returned by mail. Many interviewers felt that an awareness of potential follow-up might have encouraged respondents to promptly complete the questionnaire in many cases. Another frequent comment concerned the problem of accessing apartment buildings, while several comments mentioned that the training time was inadequate, especially for new interviewers. A number of interviewers from the Prairie region mentioned that working on

Sunday was a problem with respondents.

A number of interviewers mentioned that there was inadequate time allowed before telephone follow-up and problems stemmed from holding the questionnaire at the ROs. There appeared to be numerous occasions in which an interviewer completed a questionnaire over the phone only to have the original questionnaire, which the respondent insisted was in the mail, arrive the following day. This problem was more acute in the Prairie Region where mail could sometimes take up to 7 days to travel from Manitoba to the Edmonton RO. Interviewers mentioned that this situation created a negative public relations image for Statistics Canada.

It should be noted, however, that these test-specific concerns should be alleviated during the actual Census either because of operational differences or heightened public awareness. Several interviewers suggested that the Census test should be conducted in the summer to take advantage of more daylight hours. As a final note on test-specific comments, there were relatively few complaints from respondents about having recently been selected for the Labour Force Survey.

For comments that were not of a test-specific nature, most related to questionnaire length and difficulty and several interviewers mentioned that some respondents were simply intimidated. Many interviewers mentioned that the mail-back response was much greater for households in which personal contact with the respondent was made during drop-off (see Table 3). One interviewer noted that she had to complete the questionnaire with a senior citizen who insisted she could not have completed the survey without assistance. One interviewer felt that most respondents complied with the NCT only because it was mandatory. Respondents would not spend time to read the Guide or use the Census Help Line (CHL). This same interviewer suggested that respondents even avoided expressing their sentiments in writing (NCT Step 10). Another interviewer made the following observation:

"I also found that Step 10 was answered with very little thought if not omitted entirely. Even when it couldn't have been more obvious that the respondent did not understand parts of the questionnaire, they would answer "No" to Step 10 Questions."

Perhaps this should be kept in mind when interpreting the incidence rates reported in NCT Report 4 (Census Help Line) and NCT Report 25. One interviewer strongly recommended that the CHL number be prominently displayed on the front cover.

Several interviewers stressed the need for Statistics Canada to explain the reasons why these data are needed. While this is the function of the Census Guide, many respondents do not read the Guide. For the 1996 Census, the decision to put the reasons for questions directly on the short questionnaire (form 2A) and eliminate the Guide (form 9A) should improve this situation. Finally, one interviewer strongly suggested that Statistics Canada use meaningful examples, to which the average person can relate, on how the data they provide

fit into the overall picture. This concurs with a conclusion of NCT Report 25 that people will be more likely to provide the requested information if they understand why it is collected.

3. Mail Response and the Test Environment

This section of the report examines the NCT mail response rates and factors which affect these response rates. One consideration motivating this line of inquiry is the fact that the mail response rate for the decennial United States Census declined from 75% in 1980 to 65% in 1990, resulting in significant expenditure increases for follow-up.¹ This is of concern given that the 1996 Census is conducting a Centralized Edit test in preparation for Census 2001 and the mail response rate is an acute consideration in such an environment. According to Survey Operations Division (SOD), the final mail response rate for the NCT was 55.1% (9,954 questionnaires returned from a total drop-off of 18,160); this excludes out-of-scope dwellings from the original drop-off (21,107 dwellings). It should be noted that the NCT was conducted without the media awareness campaign which normally accompanies a census.

Analysis of Control Sheet Data

An interviewer Control Sheet was provided for each assignment in the NCT so that the interviewer could record survey information pertaining to each dwelling (e.g. number of follow-up attempts). These Control Sheets were data captured and appended to the household files.² However, an investigation of the Control Sheet data seems to indicate that there were problems in the Edmonton Regional Office. The "Final Status Code" variable was used as a surrogate to determine the extent of the Control Sheet problem. The "Final Status Code" value is missing for 100% of the household records from the Edmonton RO. The next highest missing value rate is 18% for the Montréal RO while the remaining ROs have extremely low rates of missing values.

The "Received" variable captured as part of the Control Sheet information is used to measure the mail response rate. A "1" in this field indicates that the NCT questionnaire was received from the RO, meaning that the respondent had completed and mailed the questionnaire. It appears that in the Edmonton RO, only check marks in the "Received" column of the Control Sheets were recorded by interviewers. When the Edmonton RO Control Sheets were data captured, the check mark appeared to have been captured as a "1". As such, the missing values can be assumed to represent cases in which the questionnaire was not received by mail in the RO. This assumption is made for all the mail

¹ Dillman, D., Sinclair, M. and Clark, J. (1993), "Effects of Questionnaire Length, Respondent-Friendly Design and a Difficult Question on Response Rates for Occupant-Addressed Census Mail Surveys." *Public Opinion Quarterly* 57: 289-304.

² Unix files nct.lfsamp.hhldfile.dat.01.apr21 (LFS) and nct.specpop.hhldfile.dat.01.apr.21 (Special).

response rate estimates presented in Table 2. That is, the estimates assumes that all missing values are cases in which the questionnaire was not mailed to the RO by the respondent.

Using the Control Sheet data, the mail response rate for the NCT was 63.5%; somewhat higher than the 55.1% reported by SOD. This difference is accounted for by the smaller denominator represented by the two household files. While the original intention was to capture all records, regardless of final status code, the household files appear to contain primarily the completed and partial records. A frequency of "Final Status Code" indicates that 70% of the records are complete or partial with the remaining 29% missing values. The Edmonton RO accounts for approximately 90% of these missing values. In other words, the records in the household files represent a sub-set of the denominator used by SOD to calculate the mail response rate. It is assumed that the "Received" value of "2" represents cases in which the questionnaire was completed over the phone or completed/picked-up by the interviewer at the dwelling.

If one takes the SOD figure of 9,954 questionnaires returned and uses the denominator of 15,112 records data captured, the resultant is 65.9%. This is fairly close to the 63.5% estimate from the Control Sheet data. In any event, the value of Table 2 is in a comparison of the estimates among the categories. For example, the mail response rate for the LFS sample component was 15 percentage points higher than the mail response rate for the Special Population sample. In their study of response rates in the United States, Dillman *et al.* (1993) found that low response areas from the 1990 Census tended to have lower incomes, lower levels of education, a higher proportion of visible minorities and more multiple-unit dwellings (i.e. in urban areas).

Table 2
NCT Mail-Back Response Rates

$n = 15,112$ [1]	Rate [2]
Mail Response Rate	
Total Sample	63.5%
LFS Component [3]	66.4%
Special Population [3]	50.9%
"Received" missing values	3,677
Contact at Drop-Off [3]	
Yes Contact	71.6%
No Contact	57.2%
"Contact" missing values	4,799

$n = 15,112$ [1]	Rate [2]
Regional Office [3]	
St. John's	71.0%
Halifax	67.5%
Montréal	59.1%
Sturgeon Falls	82.4%
Toronto	60.1%
Edmonton	64.0%
Vancouver	54.0%
"RO" missing values	2

- [1] The combined sample of 12,273 (LFS) + 2,839 (Special Population).
- [2] Estimate assumes all missing values were not received by the RO.
- [3] These differences are statistically significant (Chi-Square, $\alpha = .01$)

There is statistical evidence to support interviewers' claims on the debriefing questionnaire, recounted in NCT Report 5 and NCT Report 6, that contact with a respondent at drop-off increases the likelihood of a respondent completing and returning the questionnaire. Based on the Control Sheet data, it would appear that contact with the respondent resulted in a mail response rate 14 percentage points higher than for cases in which contact was not made during drop-off. This is not unexpected in that mail survey research is unequivocal in confirming that the most powerful influence on mail survey response rates is the number of contacts (Dillman *et. al.*, 1993). Again, the important implication of this finding is for Centralized Edit procedures in which the survey instrument is mail-out / mail-back.

The mail response rates varied by Regional Office with the Vancouver RO having a rate 10 percentage points below the average. The highest mail response was achieved by the Sturgeon Falls RO with a rate of over 80%. It would appear that two factors are symbiotically at work in the case of RO variation. The first factor is that of urban size, with the Montréal, Toronto and Vancouver ROs experiencing below average rates of mail response. The second factor is the lower mail response rate in the Special Population sample; all three of these cities also contained Special Population assignments. It appears that the effect of each factor depends on the area. For example, the mail response rate in the Halifax RO was 25 percentage points lower for the Special Population sample.

In the Vancouver RO, there was no statistically significant difference in mail response rates between the LFS and Special Populations samples. In the Montréal and Toronto ROs, the

Special Population sample had statistically significant lower mail response rates of 5 and 10 percentage points respectively. In the Edmonton RO, the mail response rate was close to 70% for the LFS sample but was just over 50% for the Special Population sample. There is also the effect of RO training, procedures and personnel which is virtually impossible to separate from the effects of urban size and sample component.

Using the "Passfail" variable captured as part of the Control Sheet information, the edit failure rate was virtually identical for the LFS and Special Population samples. However, the edit failure rate followed a linear pattern from east to west with a low of 58% in the St. John's RO to a high of 75% in the Vancouver RO. If the questionnaire was mailed to the RO, it was statistically less likely to pass field edit. This is not surprising given that many of the questionnaires not mailed to the RO would have been completed by the interviewer over the phone. As a final note regarding the Control Sheets, it appears that many were not completed accurately or consistently by the interviewers and, concomitantly, this analysis must be regarded with caution.

Research Considerations

It is important to recognize that these mail response rates are lower than those which would be expected during an actual Census. This is a function of what is referred to as the "Census Climate" effect; the actual Census is supported by an extensive communications strategy to raise public awareness. It is virtually impossible to quantify the effect of this awareness on mail response rates. Perhaps the most important finding of the Control Sheet analysis is that contact with the respondent at drop-off has a significant impact on the mail response rate. However, Centralized Edit field procedures (mail-out / mail-back) would eliminate contact at drop-off. The U.S. Bureau of the Census has been conducting research aimed at enhancing mail response rates.

Dillman *et. al.* (1993) report on a test investigating several factors on mail response rates. Using a sample of 17,000 dwellings, they tested 5 versions of a census questionnaire in two strata. The first stratum consisted of "low response" areas and the second stratum consisted of "average response" areas based on the 1990 Census. The results of the test indicate that a shorter questionnaire resulted in a 4% higher mail response rate on average but with a much higher effect in the "average response" stratum. A more respondent-friendly questionnaire was found to have a small effect in the "low response" stratum. However, the interaction effect of these two factors was estimated to result in a mail response rate approximately 8 percentage points higher in all areas.

The authors caution, however, that these effects may be more than offset by the "Census Climate" effect during an actual Census. Again, this effect is impossible to quantify. Finally, the study tested the impact of a difficult and/or objectionable question. The study found that asking for Social Security Number resulted in not just lower than average response rates for this particular question but also lower mail response rates. In other words, an objectionable question tends to reduce the propensity of respondents to complete other questions and

return the questionnaire.

There are important lessons to learn from this research. The NCT Special Population sample is more or less analogous to the "low response" stratum defined in the U.S. Census Bureau test and households in such areas were found to be more receptive to a respondent-friendly questionnaire. Clearly the combined effect of a more friendly questionnaire design and fewer questions on mail response cannot be dismissed, regardless of the "Census Climate". Finally, it should be noted that the U.S. Bureau of the Census has also tested a mandatory appeal message on the mail-out envelopes and found that this increased initial response rates by approximately 10%.³ This concurs with the feeling of several interviewers on the NCT that if respondents were aware of the mandatory nature of the test they would be more apt to complete and return the questionnaire.

4. Summary

While this report may seem to consist of two unrelated sections, the results from these two sections may in fact be "two sides of the same coin". An analysis of the Interviewer Debriefing Questionnaires leads one to conclude that, in general, interviewers found the NCT questionnaire too long and too difficult for respondents. This is quite apparent for the Labour Market Activities section. An analysis of the NCT Control Sheet data finds that contact with the respondent at drop-off significantly increased mail response. However, in preparation for a Centralized Edit collection regime, Statistics Canada should examine other response-enhancing strategies. American research indicates that mail response rates can be improved by designing a "friendlier" and shorter questionnaire.

American research also indicates that difficult and objectionable questions not only result in lower response rates for those questions but also have a discernable effect of reducing the respondent's likelihood of completing and returning the questionnaire. In the NCT, Income and Ancestry were found to be both difficult and objectionable by many respondents. As well, some respondents found the question on household and volunteer activities to be difficult. Multiple-part questions were frequently not well reported, especially in the last section of the question. A consideration of the issues examined in this report seems to indicate that the communications strategy will be of paramount importance to the success of the 1996 Census.

³ Dillman, D., Clark, J., and Treat, J. (1994), "Influence of 13 Design Factors on Completion Rates to Decennial Census Questionnaires", U.S. Bureau of the Census 1994 Annual Research Conference, Washington.

APPENDIX A

Interviewer Debriefing Questionnaire



Statistics
Canada

Statistique
Canada

Canada

National Census Test

Interviewer Debriefing Questionnaire

December 1993

Assignment No.

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- Completed by: 1 ☐ first-time STC interviewer
2 ☐ experienced STC interviewer

QUESTIONNAIRE DESIGN

1. Overall, did the "Step" process work well?

- 3 ☐ Yes
4 ☐ No – Please describe problems

2. Was the questionnaire easy for respondents to follow?

- 5 ☐ Yes
6 ☐ No – Please describe problems

3. Were the skip patterns clear?

- 7 ☐ Yes
8 ☐ No – Please describe problems

4. Did you often have to rephrase the questions in simpler terms or discuss their meaning with respondents?

- 1 ☐ No
2 ☐ Yes – Please explain

5. Was the layout of the questionnaire compatible with telephone or personal follow-up interview?

3 ☐ Yes

4 ☐ No – How did you resolve this problem?

6. When completing the questionnaires for respondents, did you:

5 ☐ answer all the questions down the page for one person at a time?

OR

6 ☐ answer the questions across the page for all persons at the same time?

FRONT PAGE

7. Did you get any reaction to the message from the Chief Statistician, e.g. confidentiality of the data provided or the mandatory participation?

7 ☐ No

8 ☐ Yes – Please explain

8. (a) Did most respondents fill in the address box on the front cover?

1 ☐ Yes

2 ☐ No

(b) Did most respondents provide all the information requested in the address box?

3 ☐ Yes

4 ☐ No – Please explain

9. Do you have any suggestions to improve the front cover?

5 ☐ No

6 ☐ Yes – Please comment

COVERAGE-RELATED QUESTIONS (Steps 2 to 6)

10. In general, did respondents have difficulties distinguishing between the usual and the temporary residents of their dwelling?

7 ☐ No

8 ☐ Yes – Please describe kinds of problems observed

11. Were there any situations where it was unclear to you or the respondent as to whether a person should be included as a usual resident of the dwelling?

1 ☐ No

2 ☐ Yes – Please give examples

12. Were there any terms in this section that were not well understood by respondents?

3 ☐ No

4 ☐ Yes – Please indicate term and provide suggestions that would make the term easier to understand, if you have any

13. Did respondents correctly follow all the skip patterns of the section?

5 ☐ Yes

6 ☐ No – Please describe problems

14. Were there any negative reactions from respondents to these steps?

7 ☐ No

8 ☐ Yes – Please indicate which ones and comment

FAMILY, DEMOGRAPHY AND ACTIVITY LIMITATIONS QUESTIONS (Questions 2 to 8)

15. Were there any questions in this section that caused problems or were difficult for respondents to answer?

1 ☐ No

2 ☐ Yes – Please indicate question number and describe the problem

16. Were there any terms in this section that were not well understood by respondents?

3 ☐ No

4 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

17. Were there any negative reactions from respondents to these questions?

5 ☐ No

6 ☐ Yes – Please indicate question number and comment

LANGUAGE QUESTIONS (Questions 9 to 11)

18. Were there any questions in this section that caused problems or were difficult for respondents to answer?

7 ☐ No

8 ☐ Yes – Please indicate question number and describe the problem

19. Were there any terms in this section that were not well understood by respondents?

1 ☐ No

2 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

20. Were there any negative reactions from respondents to these questions?

3 ☐ No

4 ☐ Yes – Please indicate question number and comment

SOCIO-CULTURAL INFORMATION (Questions 12 to 20)

21. Were there any questions in this section that caused problems or were difficult for respondents to answer?

5 ☐ No

6 ☐ Yes – Please indicate question number and describe the problem

22. Were there any terms in this section that were not well understood by respondents?

7 ☐ No

8 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

23. Were there any negative reactions from respondents to these questions?

1 ☐ No

2 ☐ Yes – Please indicate question number and comment

24. Did respondents correctly follow all the skip patterns of the section?

3 ☐ Yes

4 ☐ No – Please describe

MOBILITY (Questions 21 and 22)

25. Did respondents have any difficulty answering these two questions?

5 ☐ No

6 ☐ Yes – Please indicate question number and describe the problem

26. Were there any terms in this section that were not well understood by respondents?

7 ☐ No

8 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

27. Were there any negative reactions from respondents to these questions?

1 ☐ No

2 ☐ Yes – Please indicate question number and comment

EDUCATION (Questions 23 to 25)

28. Were there any questions in this section that caused problems or were difficult for the respondents to answer?

3 ☐ No

4 ☐ Yes – Please indicate question number and describe the problem

29. Were there any terms in this section that were not well understood by respondents?

5 ☐ No

6 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

30. Were there any negative reactions from respondents to these questions?

7 ☐ No

8 ☐ Yes – Please indicate question number and comment

31. Did respondents correctly follow all the skip patterns of the section?

1 ☐ Yes

2 ☐ No – Please describe problems

HOUSEHOLD AND VOLUNTEER ACTIVITIES (Question 26 (a), (b), (c) and (d) and Question 27)

32. Were there any questions in this section that caused problems or were difficult for respondents to answer?

For example: Were the response categories adequate? Were the examples helpful? Did respondents have any trouble deciding in which part they should include an activity?

3 ☐ No

4 ☐ Yes – Please indicate question number and part and describe the problem

33. Were there any terms in this section that were not well understood by respondents?

For example: seniors, children, housework, non-profit organization.

5 ☐ No

6 ☐ Yes – Please indicate the question number and the term and provide suggestions that would make the term easier to understand, if you have any

34. Were there any negative reactions from respondents to these questions?

7 ☐ No

8 ☐ Yes – Please indicate question number and comment

LABOUR MARKET ACTIVITIES (Questions 28 to 45)

35. Were there any questions in this section that caused problems or were difficult for respondents to answer?

1 ☐ No

2 ☐ Yes – Please indicate question number and describe the problem

36. Were there any terms in this section that were not well understood by respondents?

For example: manufacturing, wholesale and retail trade.

3 ☐ No

4 ☐ Yes – Please indicate the question number and the term and provide suggestions that would make the term easier to understand, if you have any

37. Were there any negative reactions from respondents to these questions?

5 ☐ No

6 ☐ Yes – Please indicate question number and comment

38. Did respondents correctly follow all the skip patterns in this section?

7 ☐ Yes

8 ☐ No – Please indicate question number and describe problems

39. Did respondents indicate any resentment or confusion in answering Question 36 in those cases where they were required to indicate "Other", rather than a specific industry category?

1 ☐ No

2 ☐ Yes – Please describe the problem

40. Did respondents indicate any difficulty in determining if their activities should be reported in the HOUSEHOLD AND VOLUNTEER ACTIVITIES section (Questions 26 and 27) or in the LABOUR MARKET ACTIVITIES section (Questions 28 to 45)?

For example, in Question 39 was there any confusion noted in the second category, working without pay for his/her spouse or another relative in a family farm or business.

3 ☐ No

4 ☐ Yes – Please describe difficulty or confusion

INCOME (Question 46)

41. Were there any parts in this question that were difficult for respondents to answer?

5 ☐ No

6 ☐ Yes – Please indicate part and describe problem in as much detail as possible

42. Were there any negative reactions from respondents to this question?

7 ☐ No

8 ☐ Yes – Please describe and indicate the frequency, along with your comments

DWELLING (Questions 47 and 48)

43. Were there any questions in this section that were difficult for respondents to answer?

1 ☐ No

2 ☐ Yes – Please indicate question number and describe the problem

44. Were there any terms in this section that were not well understood by respondents?

3 ☐ No

4 ☐ Yes – Please indicate question number and term and provide suggestions that would make the term easier to understand, if you have any

45. Were there any negative reactions from respondents to these questions?

5 ☐ No

6 ☐ Yes – Please indicate the question number and comment

FIELD OPERATIONS

46. Did some respondents want to complete the questionnaire during Drop-off?

7 ☐ No

8 ☐ Yes – How many? ►

47. Were the pictures for the types of dwelling codes on your reference card any help in deciding which code to use?

1 ☐ Yes

2 ☐ No – Indicate the least helpful and explain

48. Were the definitions for each type of dwelling:

3 ☐ easily understood

4 ☐ confusing – Indicate which ones and explain

49. Did you use the Dwelling Type Chart on your reference card?

5 ☐ Yes – How often?

6 ☐ A few times

7 ☐ Often

8 ☐ No – Why not?

50. Did you refer to the Interviewer's Manual during enumeration?

1 ☐ Yes – Indicate the reason and explain

2 ☐ No – Why not?

51. Was it easily understood?

3 ☐ Yes – easily understood

4 ☐ No – confusing

If no, indicate which parts and explain confusion.

52. Could you find answers quickly in the manual?

5 ☐ Yes

6 ☐ No

53. Do you have any suggestions that would make the manual a better reference tool and easier to use?

7 ☐ No

8 ☐ Yes – Please comment

54. Were any of the procedural definitions confusing?

1 ☐ No

2 ☐ Yes – Indicate which ones and explain

55. Were the edit steps easy to understand?

3 ☐ Yes

4 ☐ No – Indicate which ones and explain

56. Did you complete the edit for each person first or for each question before doing the next one?

5 ☐ Person

6 ☐ Question

57. When did you refer to the edit steps while editing questionnaires?

1 ☐ At the beginning

2 ☐ Most of the time

3 ☐ For specific questions

4 ☐ All the time

Explain

58. Were the rules for determining if Follow-up is required clear?

5 ☐ Yes

6 ☐ No – Indicate why not and explain

59. Would any other tool(s) have helped you do your job better?

7 ☐ No

8 ☐ Yes – Indicate what they are and explain

OTHER COMMENTS

60. Write any further comments or suggestions that you may have to improve the NCT questionnaire.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Thank you very much.

Your comments and suggestions will be carefully considered for the 1996 Census.

APPENDIX B

Debriefing Questionnaire Responses

<i>N</i> = 263	Yes (%)	No (%)	No Response
Questionnaire Design			
Question 1	79.2%	20.8%	8
Question 2	68.3%	31.7%	20
Question 3	52.2%	47.8%	12
Question 4	48.4%	51.6%	13
Question 5	85.5%	14.2%	23
Front Page			
Question 7	28.5%	71.5%	10
Question 8a	98.1%	1.9%	4
Question 8b	94.2%	5.8%	4
Question 9	18.3%	81.7%	11
Coverage-Related (Steps 2 to 6)			
Question 10	12.6%	87.4%	9
Question 11	22.9%	77.1%	10
Question 12	14.7%	85.3%	12
Question 13	71.6%	28.4%	13
Question 14	12.2%	87.8%	8
Family, Demography and Activity Limitations (Questions 2 to 8)			
Question 15	41.8%	58.2%	12
Question 16	20.0%	80.0%	13
Question 17	25.9%	74.1%	8

<i>N</i> = 263	Yes (%)	No (%)	No Response
Language (Questions 9 to 11)			
Question 18	7.8%	92.2%	5
Question 19	4.7%	95.3%	6
Question 20	5.5%	94.5%	8
Socio-Cultural (Questions 12 to 20)			
Question 21	44.2%	55.8%	12
Question 22	21.7%	78.3%	9
Question 23	32.8%	67.2%	10
Question 24	82.1%	17.9%	12
Mobility (Questions 21 and 22)			
Question 25	6.2%	93.8%	5
Question 26	7.0%	93.0%	5
Question 27	3.9%	96.1%	5
Education (Questions 23 to 25)			
Question 28	13.6%	86.4%	6
Question 29	8.6%	91.4%	8
Question 30	5.5%	94.5%	9
Question 31	77.4%	22.6%	11
Household & Volunteer Activities (Questions 26 and 27)			
Question 32	36.4%	63.6%	10
Question 33	11.4%	88.6%	9
Question 34	30.7%	69.3%	9
Labour Market Activities (Questions 28 to 45)			
Question 35	57.2%	42.8%	20
Question 36	23.9%	76.1%	12
Question 37	31.6%	68.4%	13

<i>N</i> = 263	Yes (%)	No (%)	No Response
Question 38	46.4%	53.6%	11
Question 39	23.4%	76.6%	7
Question 40	9.5%	90.5%	10
Income (Question 46)			
Question 41	63.6%	36.4%	10
Question 42	95.3%	4.7%	9
Dwelling (Questions 47 and 48)			
Question 43	5.5%	94.5%	8
Question 44	3.1%	96.9%	8
Question 45	7.5%	92.5%	9
Field Operations			
Question 46	42.5%	57.5%	11
Question 47	91.2%	8.8%	14
Question 49	84.3%	15.7%	27
Question 50	72.9%	27.1%	16
Question 51	86.6%	13.4%	24
Question 52	76.8%	23.2%	17
Question 53	37.7%	62.3%	43
Question 54	12.6%	87.4%	25
Question 55	84.0%	16.0%	20
Question 58	84.6%	15.4%	16
Question 59	42.0%	58.0%	37

Continued →

Appendix B (continued)

Question	Response Category	
Question 06	down the page for one person...	50.6%
	across the page for all persons...	49.4%
	missing	28
Question 46	How many (average)	5.03
Question 48	easily understood	83.9%
	confusing	16.1%
	missing	9
Question 49	A few times	63.3%
	Often	36.7%
Question 56	Person	56.5%
	Question	43.5%
	missing	17
Question 57	At the beginning	50.2%
	Most of the time	14.3%
	For specific purposes	27.3%
	All the time	8.2%
	missing	18
Question 60	other comments	202

APPENDIX C

NCT Reports

1. Proposal for the 1996 National Census Test
2. 1996 Census Consultation Report / Rapport sur les consultations du recensement de 1996
3. Questionnaire Design Consultation
4. Evaluation of the Census Help Line
5. Interviewer Debriefing Report
6. Evaluation of Field Collection Procedures
7. Automated Coding Report
8. Rapport sur le niveau de langue des questionnaires
9. Evaluation of Questionnaire Design and Layout (CRC)
10. Edit Failure and Response Rates
11. Coverage-Related Steps and Step 9
12. Agriculture Operator
- 13a. Évaluation des variables démographiques
- 13b. Family Characteristics
14. Analyse des données linguistiques
15. Place of Birth, Citizenship and Immigration
16. Ethnic Origin
17. Aboriginal Report
18. Population Group
19. Mobility and Migration
20. Household and Volunteer Activities
21. Labour Market Activities
22. Place of Work / Mode of Transportation
23. Analysis of Income Components
24. Household Maintainer
25. Evaluation of Respondents' Comments
26. Evaluation of Questionnaire Design and Layout (STC)
27. Interviewer Debriefing Questionnaires and Mail Response Rates
28. Evaluation of Processing Operations

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