

COMPENSATION SECTOR SURVEY

USER GUIDE

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1.0 Introduction

Statistics Canada conducted the Compensation Sector Survey from September 26 to October 26, 2001 with the support and collaboration of the Human Resources Community Secretariat of the Treasury Board of Canada Secretariat. This guide was prepared to facilitate manipulation of the microdata file with results of the survey.

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2.0 Background

The 1999 Public Service Employee Survey, carried out with federal employees, gave us an overview of employees in the public service, but it was impossible to extract data specific to the compensation community based on the professional group of respondents.

To obtain reliable data that would make it possible to understand the demographic characteristics of this community throughout the federal public service, those responsible for updating the compensation function of the Human Resources Community Secretariat (HRCS) mandated Statistics Canada to conduct a survey.

3.0 Objectives

The purpose of the survey is to obtain a profile of members of the compensation community in the Human Resources community of the federal public service. The results would allow the HRCS to renew recruiting, training and development programs for this community in such a manner that these programs would take into account current data.

4.0 Concepts and Definitions

The following chapter includes a summary of concepts and definitions used in the Compensation Sector Survey.

4.1 Concepts and Definitions for the Compensation Sector Survey

The survey targeted employees of the Treasury Board of Canada Secretariat and members of the compensation group, based on the definition in parts I and II of Schedule 1 the *Public Service Staff Relations Act*.

We have added definitions to the questionnaire to ensure that respondents interpret the expressions in the same way.

These definitions included:

Aboriginal: An Aboriginal person is a North American Indian or a member of a First Nation, a Métis or Inuit. North American Indians or members of a First Nation include Status, Treaty or Registered Indians, as well as Non-Status and Non-registered Indians.

Person with disability: A person with a disability has a long-term or recurring physical, mental, sensory, psychiatric or learning impairment and:

- (a) considers himself or herself to be disadvantaged in employment by reason of that impairment, or;
- (b) believes that an employer or potential employer is likely to consider him/her to be disadvantaged in employment by reason of that impairment.

This definition includes persons whose functional limitations from their impairment have been accommodated in their current job or workplace.

Visible minority: A person in a visible minority group in Canada is someone (other than an Aboriginal person) who is non-white in colour, regardless of place of birth.

5.0 Survey Methodology

5.1 Population Coverage

This was a census type survey. This means that all public servants in the departments and organizations covered by schedule 1, parts I and II of the *Public Service Staff Relations Act*, and members of the compensation group in the Human Resources community who were part of the target population were asked to complete the questionnaire.

Participating departments and organizations are listed below:

ACO - Atlantic Canada Opportunities Agency
AGR - Agriculture and Agri-Food Canada
APT - Canadian Artists and Producers Professional Relations Tribunal
ARC - National Archives of Canada
ATN - Canadian Transportation Agency
AUD - Office of the Auditor General of Canada
BCO - Canadian International Trade Tribunal
CAP - Parks Canada Agency
CEO - Office of the Chief Electoral Officer
CFC - Financial Transactions and Reports Analysis Centre of Canada
CIC - Canadian Intergovernmental Conference Secretariat
CIO - Canada Information Office
CLD - Law Commission of Canada
CLR - Canada Industrial Relations Board
CMG - Canadian Centre for Management Development
COL - Office of the Commissioner of Official Languages
COP - Copyright Board
CRI - Canadian Institutes of Health Research
CSA - Canadian Space Agency
CSE - Communications Security Establishment
CSI - Canadian Security Intelligence Service
CSN - Canadian Nuclear Safety Commission
CST - NAFTA Secretariat - Canadian Section
CSW - Office of the Co-ordinator, Status of Women Canada
DFO - Department of Fisheries and Oceans
DND - Department of National Defence
DOE - Department of Environment
DUS - Department of Industry
DVA - Department of Veterans Affairs
EAA - Canadian Environmental Assessment Agency
ENR - National Energy Board
EXT - Department of Foreign Affairs and International Trade
FCT - Registry of the Federal Tax Court of Canada
FIN/TBD - Department of Finance/Treasury Board Secretariat
FJA - Office of the Commissioner for Federal Judicial Affairs
FRD - Economic Development Agency of Canada for the Region of Québec

GGG - Office of the Secretary of the Governor General
HRC - Canadian Human Rights Commission
IAN - Department of Indian Affairs and Northern Development
ICA - Canadian Food Inspection Agency
IDA - Canadian International Development Agency
IJC - International Joint Commission
IMC - Department of Citizenship and Immigration
IOG - Indian Oil and Gas Canada
IPC - Office of the Information and Privacy Commissioner
IRB - Immigration and Refugee Board
JUS -Department of Justice
MOT - Department of Transports
NAR - Canada Customs and Revenue
NCC - National Capital Commission
NEE - National Round Table on the Environment and the Economy
NFB - National Film Board of Canada
NLI - National Library of Canada
NPB - National Parole Board
NRC - National Research Council of Canada
NSE - Natural Sciences and Engineering Research Council
PCH - Department of Canadian Heritage
PCO - Privy Council Office
PEN - Correctional Service of Canada
POL - Canadian Polar Commission
PPT - Passport Office
PSC - Public Service Commission
PTP - Canadian Human Rights Tribunal
RCM - Royal Canadian Mounted Police (Civilian Personnel)
REA - Prairie Farm Rehabilitation Administration
REH - Department of Human Resources Development
RSN - Department of Natural Resources
RTC - Canadian Radio-Television and Telecommunications Commission
SHC - Department of Health
SIF - Office of the Superintendent of Financial Institutions Canada
SIR - Security Intelligence Review Committee
SOL - Solicitor General Canada
SRB - Public Service Staff Relations Board
SSH - Social Sciences and Humanities Research Council
STC - Statistics Canada
SUC - Supreme Court of Canada
SVC - Public Works and Government Services
SYT - Statistical Survey Operations
TCC - Registry of the Tax Court of Canada
TSB - Canadian Transportation Accident Investigation and Safety Board of Canada
WCO - Western Economic Diversification

5.2 Population Size

The population base was broken down by the HRCS. In August 2001, the HRCS sent a note to all regional and local managers of departments and organizations to determine the number of questionnaires required by them to cover all sectors. The questionnaire was to be completed by all employees who provide payroll and fringe benefit services within the federal public service.

5.2.1 Number of questionnaires by province

The following table indicates the number of questionnaires mailed by province.

Province	Number of questionnaires
Newfoundland and Labrador	34
Prince Edward Island	31
Nova Scotia	142
New Brunswick	48
Quebec	516
Ontario	1076
Manitoba	109
Saskatchewan	76
Alberta	109
British Columbia	205
Northwest Territories and Nunavut	3
Yukon	5
CANADA	2354

5.2.2 Number of questionnaires by department / agency

The following table indicates the number of questionnaires asked by department / agency. However, the population counts did not necessarily represent the actual number of Compensation employees who have received the questionnaires in the departments/agencies and region. For example, there was no direct mail-out for the Department of Natural Resources, as defined in Q1.

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Departments / Organizations	Number of questionnaires
ACO - Atlantic Canada Opportunities Agency	5
AGR - Agriculture and Agri-Food Canada	66
APT - Canadian Artists and Producers Professional Relations Tribunal	
ARC - National Archives of Canada	6
ATN - Canadian Transportation Agency	3
AUD - Office of the Auditor General of Canada	6
BCO - Canadian International Trade Tribunal	2
CAP - Parks Canada Agency	44
CEO - Office of the Chief Electoral Officer	5
CFC - Financial Transactions and Reports Analysis Centre of Canada	4
CIC - Canadian Intergovernmental Conference Secretariat	1
CIO - Canada Information Office	
CLD - Law Commission of Canada	
CLR - Canada Industrial Relations Board	
CMG - Canadian Centre for Management Development	
COL - Office of the Commissioner of Official Languages	1
COP - Copyright Board	
CRI - Canadian Institutes of Health Research	3
CSA - Canadian Space Agency	5
CSE - Communications Security Establishment	4
CSI - Canadian Security Intelligence Service	6
CSN - Canadian Nuclear Safety Commission	4
CST - NAFTA Secretariat - Canadian Section	1
CSW - Office of the Co-ordinator, Status of Women Canada	1
DFO - Department of Fisheries and Oceans	85
DND - Department of National Defence	189
DOE - Department of Environment	48
DUS - Department of Industry	41
DVA - Department of Veterans Affairs	41
EAA - Canadian Environmental Assessment Agency	
ENR - National Energy Board	4
EXT - Department of Foreign Affairs and International Trade	28
FCT - Registry of the Federal Tax Court of Canada	3
FIN/TBD - Department of Finance/Treasury Board Secretariat	12
FJA - Office of the Commissioner for Federal Judicial Affairs	4
FRD - Economic Development Agency of Canada for the Region of Québec	2
GGG - Office of the Secretary of the Governor General	4
HRC - Canadian Human Rights Commission	2
IAN - Department of Indian Affairs and Northern Development	43
ICA - Canadian Food Inspection Agency	37
IDA - Canadian International Development Agency	10
IJC - International Joint Commission	1

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IMC - Department of Citizenship and Immigration	40
IOG - Indian Oil and Gas Canada	
IPC - Office of the Information and Privacy Commissioner	1
IRB - Immigration and Refugee Board	15
JUS -Department of Justice	40
MOT - Department of Transports	35
NAR - Canada Customs and Revenue	551
NCC - National Capital Commission	3
NEE - National Round Table on the Environment and the Economy	
NFB - National Film Board of Canada	5
NLI - National Library of Canada	
NPB - National Parole Board	2
NRC - National Research Council of Canada	20
NSE - Natural Sciences and Engineering Research Council	
PCH - Department of Canadian Heritage	17
PCO - Privy Council Office	12
PEN - Correctional Service of Canada	90
POL - Canadian Polar Commission	
PPT - Passport Office	6
PSC - Public Service Commission	15
PTP - Canadian Human Rights Tribunal	
RCM - Royal Canadian Mounted Police (Civilian Personnel)	154
REA - Prairie Farm Rehabilitation Administration	6
REH - Department of Human Resources Development	309
RSN - Department of Natural Resources	
RTC - Canadian Radio-Television and Telecommunications Commission	
SHC - Department of Health	84
SIF - Office of the Superintendent of Financial Institutions Canada	3
SIR - Security Intelligence Review Committee	
SOL - Solicitor General Canada	1
SRB - Public Service Staff Relations Board	1
SSH - Social Sciences and Humanities Research Council	3
STC - Statistics Canada	80
SUC - Supreme Court of Canada	1
SVC - Public Works and Government Services	123
SYT - Statistical Survey Operations	
TCC - Registry of the Tax Court of Canada	2
TSB - Canadian Transportation Accident Investigation and Safety Board of Canada	3
WCO - Western Economic Diversification	2
Other	9
Total	2354

6.0 Data Collection

6.1 Design of the questionnaire

The content of the questionnaire was defined with the help of members of the HRCS. They used the questionnaire for the survey conducted by Statistics Canada with federal employees as a guide, as well as the questionnaire used the previous year for a demographic study with the personnel administration group of human resources community.

The provisional version of the questionnaire was submitted for approval to the members of the Association of Compensation Managers. Their comments were included in the questionnaire and the final layout was designed. The final draft was presented to the HRCS, who approved it.

6.2 Collection

The questionnaires were sent by mail to each of the regional and local compensation managers. Each of the mailings sent to the managers included an introductory letter, the number of questionnaires requested, and pre-stamped return envelopes.

Each manager was responsible for distributing the questionnaires to all of their employees working in the field of compensation and to encourage them to complete and return it in the following weeks.

After an initial mailing of 2,130 questionnaires, additional requests for 224 questionnaires were received (for a total of 2,354). Additional questionnaires were sent and the initial collection period was extended. Collection took place from September 26 to October 26, 2001. In all, 1,509 questionnaires were received, representing a response rate of 64%.

It should be noted that the number of questionnaires sent does not reflect the number of people in the population and this should be taken into consideration when considering the response rate. In fact, some people requested multiple copies of the questionnaire, while others stated they thought the questionnaire was only for management personnel. Furthermore, it is possible that people outside of the field received questionnaires. But on the whole, we estimate that this situation will have little or no effect on the survey results.

Chapter 8 (Data Quality) contains more detailed information on the response rates.

6.3 Collection Follow-up

Three e-mail reminders were sent during the collection period. In these reminders, we asked regional and local compensation managers to complete the survey if they had not already done so. We also asked them to remind their compensation staff about the survey and to ask them to return the questionnaires as soon as possible.

Received questionnaires were grouped into batches of 25 to prepare them for scanning. The number of questionnaires was entered and periodic reports were sent to the HRCS.

7.0 Data Processing

The overall result of the Compensation Sector Survey is a "clean" microdata file. In this chapter we present a brief summary of the data processing procedures for the production of this file.

The recently distributed microdata file contains only data from the departments/agencies listed in parts 1 and II of Schedule 1 of the *Public Service Staff Relations Act* and the National Capital Region and outside the National Capital Region. This chapter gives a brief overview of the inherent steps of producing this file.

7.1 Scanning of questionnaires

A single manual edit was conducted at the reception stage. As clearly identified response categories were essential for scanning purposes, each question in the questionnaire was examined. Then, we intensively scanned the data from the 1,509 questionnaires we received. This method eliminates input errors.

7.2 Editing

We edited to isolate missing, invalid or incoherent data. We added a sequential number to the questionnaires to identify them and to eliminate any potential duplication. We also reviewed each question to check for the presence of a valid code. If this code was missing, code 9 (not stated) was attributed. We also edited to analyse the link between responses to questions 22, 24, 28 and 30. Redundant data was suppressed in light of what the responses to these questions suggested.

In addition, four types of incoherent data were corrected. In approximately 2% of questionnaires, age group (Q5) in relation to the number of years of experience either in the current position (Q17), in Compensation (Q18) or in the Public Service (Q19), as well as age group (Q5) in relation to the anticipated number of years before retirement (Q21) did not correspond; to resolve this situation, we assigned the code "not stated" as a response to one of the two questions, either the question on age group or the other question.

We also edited so that the value for the department/agency was unique. This question received multiple responses in 25 questionnaires. As there is no relation between the responses, a code of "not stated" was recorded for this question.

7.3 Weighting

This survey was a census, which means that each record is counted once and has equal weight in the survey results.

As mentioned previously, the number of completed questionnaires for this survey does not necessarily reflect the number of people in the population. Therefore, as the exact size of the population is unknown, it was impossible to adjust for non-responses.

See section 9.1 for the tabulation, analysis and distribution guidelines.

7.4 Suppression of confidential information

Note that the public use microdata files described above vary under a certain number of significant aspects from the "master files" of survey data kept by Statistics Canada. These differences are the result of measures that are taken to protect the anonymity of respondents to a questionnaire survey. The users of the data who need access to the information excluded from the microdata files may buy special tabulations. The estimates produced will be communicated to the data user, in compliance with the analysis and distribution guidelines, which are provided in an overview in Chapter 9.

PROVINCE - Suppression of geographical identifiers

The master file of survey data includes explicit geographical identifiers for the given geographical area (17 regions). Where the sample size allows, estimates for the main geographical regions (6 regions) may be obtained. The public use microdata files from the survey do not include any indicators below "National Capital Region" and "Outside the National Capital Region".

The following measures were applied to protect the anonymity of respondents.

Suppressed demographic variables: A number of demographic variables that could have been used to identify respondents were suppressed from the file. These are:

- Current area of study (Q25)
- Working arrangements to pursue studies (Q26)
- Time expected to complete program of study (Q27)

Consolidation of variable: Some variables were consolidated to reduce the possibility of respondents being identified. These are:

- The variables of Aboriginal (Q7), Person with a disability (Q8) and Visible Minority (Q9) were consolidated under one variable – Target Groups.

The univariate frequencies of the master file showing the information for all the data collected is available upon request.

Variables with consolidated response categories:

Some response categories were consolidated to minimize the risks of disclosure. These are:

- Current department / agency (Q1)
- Current location (Q2)
- Age group (Q5)
- Occupational group of current position (Q10)
- Occupational group of previous position (Q11)

- Area of current position (Q12)
- Status of current position (Q14)
- Work arrangements (Q15)
- Number of years in current position (Q17)
- Number of years in compensation (Q18)
- Number of years in federal public service (Q19)
- Number of different departments with a position in compensation (Q20)
- Level of education (Q22)
- Area of study (Q23)
- Courses taken (inside or outside the public service) (Q29)

The univariate frequencies of the master file showing the information for all the data collected is available upon request.

Assessment of risk of disclosure

To assess the risk of disclosure, three-dimensional cross tabulations, within the two geographical regions, were produced for every possible combination of indirect identifiers (23 geographical variables). The multiplicity counts, namely the number of times a record is the only one in these three-dimensional tabulations, were taken.

Throughout this analysis, 5,456 tabulations were examined within the two geographical regions, for a total of 10,912 tabulations.

Local Suppressions

Procedures were applied to the 5% of the records most affected by multiplicity (75 of the records in all). The count of the number of times a variable was part of a single three-dimensional combination was calculated for each record. When the variable with the highest count was not one of the two variables considered "not suppressible" (Q5 and Q12), it was suppressed (given a value of "not stated"). If the variable with the highest count was considered not suppressible, then the variable with the next highest count was chosen for suppression.

8.0 Data Quality

We used the number of questionnaires sent and received to establish the rates of response for the Compensation Sector Survey. The mailing addresses of Compensation managers that were used to send questionnaires include information on the departments/agencies and regions for the groups of respondents.

As mentioned, the number of questionnaires sent does not reflect the number of people in the population and this should be taken into consideration when considering the response rate. But, without other sources of information, we relied on these to establish rates of response according to region.

8.1 Response Rates

A total of 2,354 questionnaires were mailed. Collection took place from September 26 to October 26, 2001. 1,509 questionnaires were received, representing a response rate of 64%.

The following tabulation includes a summary of the rate of response for the Compensation Sector Survey by region.

Regions	Number of Questionnaires Sent Out	Number of Questionnaires Received	Response Rate (%)
Atlantic	255	196	76.9
Québec / Ontario	1,592	973	61.1
Prairies	294	201	68.4
Pacific (includes territories)	213	131	61.5
Region not stated	N/A	8	N/A
CANADA	2,354	1,509	64.1

Note: Eight questionnaires were received with no response to Question 2 which asked for the location of the workplace. The response rates in this table assume that the number of questionnaires sent out is equal to the population size.

8.2 Sampling and non-sampling errors

The Compensation Sector Survey is a census type survey. Therefore, there can be no error due to sampling variability. However, non-response errors or errors that may occur at almost every stage of the survey process are possible. Respondents may provide erroneous information or errors may occur during the processing and tabulation.

We applied quality control and assurance methods in accordance with current Statistics Canada practices, at each stage of the collecting and processing cycle, in order to verify the quality of the data. We edited particularly to detect missing, invalid or incoherent data. Chapter 7, Data Processing, includes detailed information on this.

8.2.1 Non-response

In a number of surveys, the non-response total may constitute a significant source of non sampling errors, according to the significance of existing differences between respondents and non-respondents in terms of characteristics that present interest. The non-response total assumes that the employee did not participate in the survey.

We considered a non-response to be partial when the respondent had not answered the question or had provided information that did not match the responses to other questions. The partial non-response was indicated in the microdata file with the "not stated" code.

9.0 Guidelines for Tabulation, Analysis and Release

This chapter of the documentation outlines the guidelines to be adhered to by users tabulating, analysing, publishing or otherwise releasing any data derived from the survey microdata files. With the aid of these guidelines, users of microdata should be able to produce the same figures as those produced by Statistics Canada and, at the same time, will be able to develop currently unpublished figures in a manner consistent with these established guidelines.

9.1 Sample Weighting Guidelines for Tabulation

As the Compensation Sector Survey was a census and there is no adjustment for non-response applied, the estimates derived from the microdata files can be considered to be representative of the population who responded to the survey, and will correspond to those produced by Statistics Canada.

9.1.1 Definition of type of estimates: Categorical

Before discussing how the Compensation Sector Survey data can be tabulated and analysed, it is useful to describe the main type of point estimates of population characteristics which can be generated from the microdata file for the Compensation Sector Survey.

Categorical Estimates

Categorical estimates are estimates of the number, or percentage of the surveyed population possessing certain characteristics or falling into some defined category. The number of employees in compensation who expect to occupy another position and the proportion of those which expect to occupy another position in human resources are examples of such estimates. An estimate of the number of persons possessing a certain characteristic may also be referred to as an estimate of an aggregate.

Examples of Categorical Questions:

- Q: During your career, do you expect to occupy another position?
R: Yes / No
- Q: In which activity sector?
R: Compensation / Human Resources / Other area

9.1.2 Tabulation of Categorical Estimates

Estimates of the number of people who responded to the survey with a certain characteristic can be obtained from the microdata file by summing the frequencies of all records possessing the characteristic(s) of interest. Proportions and ratios of the form X/Y are obtained by:

- (a) summing the frequencies of records having the characteristic of interest for the numerator (X),
- (b) summing the frequencies of records having the characteristic of interest for the denominator (Y), then
- (c) dividing the numerator estimate by the denominator estimate.