

2001-2002
NATIONAL TENANT SATISFACTION SURVEY
SURVEY DOCUMENTATION



Statistics
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1.0 Introduction

The National Tenant Satisfaction Survey (NTSS) was undertaken to provide information on the satisfaction of federal public servants with regard to their physical working environment.

Previous surveys on tenant satisfaction had been conducted for buildings with privatized service only. For this survey, Public Works and Government Service Canada (PWGSC) increased the scope and now plan to conduct, on a regular basis, a survey on tenant satisfaction on both privatized and non-privatized facilities management portions.

Survey results will be used by PWGSC in their planning to help ensure that Federal Government employees in buildings under the responsibility of PWGSC are receiving the best possible service.

2.0 Background

The National Tenant Satisfaction Survey was undertaken to provide information on the satisfaction of federal government employees who work in buildings under the responsibility of Public Works and Government Services Canada. The survey looked at the aspects of employee work space, building services, service availability, changes in services and satisfaction with the property management team.

The resulting data and analysis aims to highlight areas which need improvement as well as areas where employees are satisfied with the standard of services delivered.

The 2001-2002 survey showed that:

- ! Nationally, 90% of tenants were very or somewhat satisfied with the services in their building.
- ! Of the 58% of tenants who would like improvements, tenants in each one of the 20 departments and agencies, as well as every management type, expressed that air circulation was the most desired improvement.
- ! Building security was cited by 19 of 20 departments as having been the most improved service over the past year.

3.0 Objectives

The main objectives of this survey were to :

- Determine tenant satisfaction in government buildings under the responsibility of PWGSC.
- Enable PWGSC to better understand and improve the needs of occupants in its buildings.

4.0 Concepts and Definitions

This chapter outlines concepts and definitions of interest to the users. Users are referred to Chapter 11 of this document for a copy of the actual survey questions used.

4.1 Survey Concepts

The survey sample frame units are phone numbers of the target population. NTSS is a sample survey weighted to the number of tenants in the target population.

Population: population of federal government employees in buildings under the responsibility of PWGSC of participating departments and agencies

Target population: federal government employees in buildings under the responsibility of PWGSC of participating departments and agencies

Large buildings: buildings with 100 or more phone lines

Small buildings: buildings with less than 100 phone lines

Tenant: Federal government employees who are occupants in the buildings

Respondents: employees who responded to the questionnaire

Overall satisfaction: tenants who were somewhat or very satisfied with the services in their building

Discrepancy in service: discrepancy is defined as the average difference between how respondents felt about the importance of each service, and their satisfaction with the delivery of each service

Eligible cases: Number of phone lines which were verified to belong to federal government employees in buildings under the responsibility of PWGSC of a participating department (i.e. in scope phone numbers)

Response rate: The numbers of tenants responding to NTSS as a percentage of the number of eligible cases

Out-of-scope: Phone numbers which fell outside of the sample criteria. Units were considered out of scope if the phone numbers were those belonging to facsimile machines, conference rooms, data lines, elevators, or were identified as not belonging to a federal department, or were those of a department who did not wish to participate in the survey. Also, some phone numbers initially thought to be in scope were later verified to belong to buildings not under the responsibility of PWGSC

4.1.1 Participating Departments and Agencies

- Agriculture and Agri-Food Canada
- Canadian Heritage
- Citizenship and Immigration Canada
- Environment Canada
- Finance Canada
- Fisheries and Oceans Canada
- Department of Foreign Affairs and International Trade
- Health Canada
- Human Resources Development Canada
- Indian and Northern Affairs Canada
- Industry Canada
- Department of Justice Canada
- Natural Resources Canada
- Parliament of Canada
- Privy Council Office¹
- Public Works & Government Services Canada
- Solicitor General Canada
- Transport Canada
- Treasury Board of Canada Secretariat²
- Veterans Affairs Canada

¹ Privy Council Office includes Millenium Bureau and Office of the Governor General respondents

² Treasury Board Secretariat includes Leadership Network respondents

Some departments elected not to participate in this survey. They include: Canada Customs and Revenue Agency, Department of National Defence, National Film Board, Royal Canadian Mounted Police and Canadian Security Intelligence Service.

4.2 Survey definitions

Physical work environment : Services in buildings

Parking availability: Public managed parking

Task lighting: Special lights over or on the immediate work area

Air circulation: Movement of the air in the building. Includes: Air quality

Building security services: Security guards and perimeter doors managing after hours building access

Cleaning services for hallways, elevators and common areas: Cleaning of carpets, floors, kitchens, lobbies, elevators, etc...

Barrier free accessibility to the building: Easy entry into the office for people with disabilities, wheelchair ramps

Building system noise levels: Noise of furnace, fans, air conditioning

Property manager: Person responsible of the day to day operations of buildings and specialized facilities. This includes planning, budgeting, energy management and ensuring due diligence with respect to environmental and life safety systems compliance

5.0 Survey Methodology

5.1 Population Coverage

The NTSS is a sample survey of federal government employees in buildings under the responsibility of Public Works and Government Services Canada (PWGSC). Specifically excluded from the survey's coverage are employees in buildings which were expected to have fewer than 10 federal government employees. This reduced the number of buildings by about half but represented only about 1% of employees. Also excluded were employees in federal government departments which chose not to participate in the survey. Departments which chose not to participate are: Canada Customs and Revenue Agency (CCRA), Department of National Defence (DND), National Film Board (NFB), Royal Canadian Mounted Police (RCMP) and the Canadian Security Intelligence Service (CSIS). In addition, excluded were buildings which PWGSC specifically chose to exclude for operational or other reasons and buildings for which it was not possible to obtain a list of employee's phone numbers.

5.2 Frame

A file of buildings in scope for the survey was obtained from PWGSC. A frame of telephone numbers was then constructed with the help of regional PWGSC representatives acting as contacts with the telephone companies. Files of telephone numbers for the buildings on the PWGSC building list were obtained from the telephone companies. The files included a field indicating the departments to which the telephone numbers belonged. Any buildings which contained only phone numbers belonging to the departments which chose not to participate in the survey were removed from the frame.

The telephone companies did not all have information for some particular types of telephone systems. In these cases telephone lists were received directly from PWGSC.

In cases where several buildings were part of a complex, (ex. East Tower, West Tower, etc.), it was not always possible to determine to which building a telephone number belonged. The only information available was that it belonged to the complex as a whole. In these cases some, or all, of the buildings within the complex had to be combined on the frame and treated as one building.

The final frame of telephone numbers contained telephone numbers for 606 buildings; 236 large and 370 small buildings. There were a total of 145,778 phone numbers on the frame, 133,365 belonged to large buildings and 12,413 belonged to small buildings. All survey results relate only to the 606 buildings on the final frame.

5.3 Sample Design

The NTSS is based on a stratified design with simple random sampling within strata. The telephone number was used as the sampling unit.

The strata were defined based on (1) size of the building, (2) type of building management, (3) region and (4) federal government client department. The strata were defined differently based on the size of the building. For the large buildings, the strata were defined by departments within buildings. For the small buildings, strata were formed by grouping together the phone numbers with the same region, type of management and department.

In constructing the strata, there were two size levels as follows:

- large -- buildings with 100 or more phone lines
- small -- buildings with less than 100 phone lines

There were 6 region categories. They were:

- Atlantic Region (including Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick)
- Quebec
- National Capital Area plus Nunavut
- Ontario (excluding National Capital Region)
- Western Region (Manitoba, Saskatchewan, Alberta and Northwest Territories)
- Pacific Region plus Yukon

The departments used in constructing the strata were as follows:

- Agriculture and Agri-Food Canada
- Canadian Heritage (excluding NFB)
- Citizenship and Immigration Canada
- Environment Canada
- Department of Finance
- Fisheries and Oceans
- Department of Foreign Affairs and International Trade
- Governor General, Residence of Her Excellency
- Health Canada
- Human Resources Development Canada
- Indian and Northern Affairs Canada
- Industry Canada
- Department of Justice Canada
- Natural Resources Canada
- Parliament of Canada
- Privy Council Office
- Public Works and Government Services Canada
- Solicitor General Canada
- Transport Canada
- Treasury Board of Canada Secretariat
- Veterans Affairs Canada

There were 19 types of management used to construct the strata. Management of some buildings is privatized through Alternate Forms of Delivery (AFD) contracts. Each portfolio of contracts was considered a separate type of management. There were 15 such AFD portfolios. In addition to these AFD types of management there were 4 other types of management. The complete list of the 19 management types is as follows:

- 15 separate AFD portfolios, each portfolio being a separate type of management
- Leased
- PWGSC managed
- Owned by other government department (OGD)
- Special category for buildings with a mixture of types of management

Sample sizes were determined within each stratum in order to achieve statistical precision requirements at the stratum level. In many small strata a census was required.

The sample selection took place at the stratum level. Telephone numbers were randomly selected using simple random sampling within a stratum.

5.4 Sample Size

At the time the sample sizes were calculated some assumptions were necessary. The rate of out-of-scope telephone numbers on the frame was expected to be 15%, the response rate was expected to be 75%, and the minimum proportion to be estimated was expected to be 0.20. The resulting total sample size was 61,939 telephone numbers. The distribution of the sample by region and by type of management is given in the tables below.

| Region | Sample Size |
|-------------------------|--------------------|
| Atlantic | 6656 |
| Quebec(excluding NCR) | 4419 |
| NCA + Nunavut | 27574 |
| Ontario (excluding NCR) | 6498 |
| Western + N.W.T. | 10646 |
| Pacific + Yukon | 6146 |
| Canada | 61939 |

| Type of Management | Sample Size |
|--|-------------|
| AFD - 01 | 1160 |
| AFD - 02 | 935 |
| AFD - 03 | 1214 |
| AFD - 04 | 1529 |
| AFD - 05 | 1333 |
| AFD - 06 | 2319 |
| AFD - 07 | 2452 |
| AFD - 08 | 2462 |
| AFD - 09 | 1401 |
| AFD - 10 | 843 |
| AFD - 11 | 559 |
| AFD - 12 | 765 |
| AFD - 13 | 990 |
| AFD - 14 | 853 |
| AFD - 17 | 375 |
| Leased | 32640 |
| PWGSC Managed | 5229 |
| OGD | 4137 |
| Special: Category for mixed management | 743 |
| Canada | 61939 |

5.5 Weighting

The principle behind estimation in a probability sample such as the NTSS is that each person in the sample “represents”, besides himself or herself, several other persons not in the sample. The weighting phase is a step which calculates what this weight should be for each record. This weight is used to derive meaningful estimates from the survey.

The final weights are based on the inverse of the initial probability that the telephone number was selected in the sample in addition to some adjustments. The following adjustments are made to derive the final weight.

- (1) An adjustment to account for the non-response to the survey as well as to account for the fact that some of the telephone numbers on the frame were out-of-scope telephone numbers and to account for the fact that some employees have more than one telephone number .
- (2) An adjustment to account for the fact that one telephone number could be linked to several employees.

The initial weight (WEIGHT1) is calculated as:

$$\text{WEIGHT1} = \frac{\text{the number of telephone numbers on the **frame** within the stratum}}{\text{the number of telephone numbers in the **sample** within the stratum}}$$

For example, if the frame contained 500 telephone numbers in a given stratum and we sampled at a rate of 20%, we would have selected 100 telephone numbers. In this example, $\text{WEIGHT1} = 500/100 = 5$. Every person in the sample in this stratum “represents” a total of 5 people in the population in this stratum.

The adjustment(A1) to account for non-response is calculated as:

$$A1 = \frac{\text{the sum of the initial weights of all sample units}}{\text{the sum of the initial weights of respondents, out-of-scope units and duplicates}}$$

One of the questions within the interview (question SIQ04) asks the respondent how many people are linked to the selected telephone number. The final adjustment uses this information to adjust the weight to account for the one telephone number to many employee relationship. The final weight is calculated as:

$$\text{FINAL WEIGHT} = \text{WEIGHT1} * A1 * \text{SIQ04}$$

This weight is required in order to produce meaningful estimates from the survey data.

6.0 Data Collection

Data collection for NTSS was carried out from December 11, 2001 to March 15, 2002. Interviews were done from four of the Regional Offices of Statistics Canada: Halifax, Sturgeon Falls, Winnipeg, and Vancouver, by trained interviewers.

6.1 Interviewing

Statistics Canada interviewers, who are employees hired and trained specifically to carry out surveys, contacted each of the sampled telephone numbers to conduct the interview. The survey collection method used was the Computer Aided Telephone Interview (CATI), whereby a trained interviewer calls the respondent, and data is captured at the time of the interviews and input into a computer. Interviews lasted 12 minutes on average.

6.2 Supervision and Control

All NTSS interviewers were under the supervision of a staff of senior interviewers who were responsible for ensuring that interviewers are familiar with the concepts and procedures of NTSS.

6.3 Non-Response

Interviewers were instructed to make all reasonable attempts to obtain NTSS interviews with tenants of participating departments. For tenants who at first refuse to participate in NTSS, a second call was made by the senior interviewer and a confirmation letter was sent by fax from the Regional Office to the office of the tenant stressing the importance of the survey and the tenant's cooperation. For cases in which the timing of the interviewer's call was inconvenient, an appointment was arranged to call back at a more convenient time. For cases in which there is no one in the office, numerous call backs are made.

If in error, interviewers spoke with one of the respondents working for a non-participating department, they ended the interview immediately, coded the unit out-of-scope and apologised. Under no circumstances are sampled phone numbers replaced by other phone numbers for reasons of non-response.

In total, 33,876 phone numbers were eligible for the survey; the NTSS interview was completed for 30,500 of these phone numbers for a response rate of 90.0%. More detailed information on response rates is presented in Chapter 8 (Data Quality).

7.0 Data Processing

NTSS's HTML tables were derived from a survey 'master' file held by Statistics Canada. This section presents a brief summary of the processing steps involved in producing this file.

7.1 Data Capture

Data capture of survey data was done directly on notebook computers by interviewers at the time of collection. A partly edited version of the computer record was electronically transmitted to Ottawa for further processing.

7.2 Editing

A series of edits were performed on the capture file to check for data paths and flows and internal consistency. The first type of error treated were errors of questionnaire flow where questions that did not apply to the respondent and therefore should not have been answered were found to contain answers. In this case, a computer edit automatically eliminated the superfluous data by following the flow of the questionnaire implied by answers to previous questions.

A second type of error treated were errors involving a lack of information in questions which should have been answered. For this type of error, a non-response or "not-stated" code was assigned to the item.

7.3 Coding of questionnaire information

During the interview, we asked the respondent to confirm the building location and department where the phone number belonged. Information related to the department was captured and coded at the time of the interview. Information related to location was recorded by the interviewer, the location information was then used by the personnel in Ottawa to code the location to a building.

A small number of data items on the questionnaire were recoded by the personnel at Ottawa. These data items were related to additional services important to tenants such as: office space, food services, privacy, drinking water and showers facilities. Using automated coding techniques and manual verification, many of these open-ended responses were recoded into new categories (where sufficient responses were indicated) or back into existing categories on the questionnaire.

7.4 Creation of Derived Variables

A number of data items on the HTML tables have been derived by combining items on the questionnaire in order to facilitate data analysis and tabulations. The Improvement Desired, for example, is actually a combination of all the services that respondents listed.

The discrepancy between importance and satisfaction for each specific services is the difference between how the respondents felt about the importance of the specific service and their satisfaction with the delivery of the service.

7.5 *Suppression of Confidential Information*

It should be noted that the amount of information contain in the HTML tables differ in a number of important respects from the survey 'master' files held by Statistics Canada. As a result, the totals on all tables may not always be equal. These differences are the results of actions take to protect the anonymity of individual survey respondents and/or organizations.

8.0 Data Quality

8.1 Sampling Errors

The estimates derived from this survey are based on a sample of phone numbers. Somewhat different estimates might have been obtained if a complete census had been taken using the same questionnaire, interviewers, processing methods, etc. as those actually used. The difference between the estimates obtained from the sample and the results from a census taken under similar conditions is called the sampling error of the estimate.

All estimates from sample surveys are subject to sampling error. A common measure of the sampling error is given by the coefficient of variation (CV) of an estimate. The CV is a measure of the standard error of the estimate relative to the size of the estimate. It is obtained by calculating the standard error of the estimate using the survey results and then dividing by the estimate itself. The result is then expressed as a percentage.

See section 10.1 on how to use the Approximate CV tables.

8.2 Non-sampling Errors

Errors which are not related to sampling may occur at almost any phase of a survey operation. Interviewers may misunderstand instructions, respondents may make errors in answering questions, the answers may be incorrectly entered and errors may be introduced in the processing and tabulation of the data. These are all examples of non-sampling errors. Considerable time and effort was made to reduce non-sampling errors. Quality assurance measures were implemented at each step of the data collection and processing cycle to monitor the quality of the data. These measures included the use of highly skilled interviewers, extensive training of interviewers with respect to the survey procedures and questionnaire, focus testing of the questionnaire, procedures to ensure that data capture errors were minimized and coding and edit quality checks to verify the processing logic.

8.2.1 Questionnaire testing

Qualitative testing in the form of focus groups was used to test and evaluate the questionnaire and survey concepts.

During March and April of 2001, seven focus group sessions took place in the National Capital Area in both official languages, each lasting two hours. Before they took part in the focus groups, tenant participants were contacted by phone and the survey completed. This was done in order to get their reactions from a respondent's point of view.

The main objectives of the focus groups were:

- (1) To test the overall reaction of knowledgeable clients, Client Service Unit Directors (CSUDs), landlords and building tenants to the questionnaire
- (2) To test the appropriateness and applicability of concepts, content and flow
- (3) To test the response burden and respondent-friendliness
- (4) To test the cognitive processes of building tenants in responding to the questionnaire including:
 - an assessment of respondents' understanding of various concepts and content
 - an evaluation of respondents' ability to respond to questions

8.2.2 Quality of the Frame

The quality of some of the sampling variables on the frame were dependent on the timeliness and accuracy of the data on the databases of the telephone companies. Due to possible inaccuracies on the frame, it was possible that interviewers contacted employees of government departments which were out-of-scope for the survey. In these cases interviewers were instructed to apologize for the interruption and end the interview. These phone numbers were then coded as out-of-scope phone numbers. There were several other reasons why phone numbers were considered as out-of-scope. When the list of phone numbers were obtained from the telephone companies it was not possible to identify telephone lines used for fax machine, data lines, conference rooms etc. All such numbers were coded as out-of-scope. Over all, 45.3% of telephone numbers on the frame were coded as out-of-scope for the survey. This was higher than originally expected. The out-of-scope rate affects the quality of the data by reducing the effective sample size. Some allowance for the fact that telephone numbers would be out-of-scope was made when the initial sample sizes were calculated.

Some variables on the sampling frame play a critical role, this is why at the time of the interview we confirmed with the respondent his location and department.

8.2.3 Data Collection

Interviewer training consisted of reading the NTSS Interviewer Guide, attending a one day formal in-class training and discussing any questions with senior interviewers before the start of the survey. A description of the background and objectives of the survey was provided, as well as a glossary of terms and a set of questions and answers. In addition, the Computer Aided Telephone Interview (CATI) used for the collection, reduced the possibility of error.

8.2.4 Non-Response to NTSS

One possible source of non-sampling error is the effect of non-response on survey results. If non-respondents tend to differ from respondents in terms of the survey variables then a non-response bias could be present. To reduce the effect of any non-response bias efforts were made to keep the response rate as high as possible. Interviewers were instructed to make all reasonable attempts to obtain NTSS interviewers with all eligible federal government employees in the sample.

After all attempts had been made to complete the interviews some non-respondents remain. These non-respondents are accounted for in the weighting process. The weights of those who responded were adjusted to account for the non-respondents.

The following table gives the response rates by region.

| Region | Sample Size | Number of Eligible Telephone Numbers | Number of Respondents | Response Rate (%) |
|-------------------------|-------------|--------------------------------------|-----------------------|-------------------|
| Atlantic | 6656 | 3732 | 3429 | 91.9 |
| Quebec (excluding NCA) | 4419 | 2657 | 2354 | 88.6 |
| NCA + Nunavut | 27574 | 15635 | 13399 | 85.7 |
| Ontario (excluding NCA) | 6498 | 3222 | 2950 | 91.6 |
| Western + N.W.T. | 10646 | 5822 | 5633 | 96.8 |
| Pacific + Yukon | 6146 | 2808 | 2735 | 97.4 |
| Canada | 61939 | 33876 | 30500 | 90 |

The following table gives the response rates by management type.

| <i>Department</i> | <i>Sample Size</i> | <i>Number of Eligible Telephone Numbers</i> | <i>Number of Respondents</i> | <i>Response Rate (%)</i> |
|--|--------------------|---|------------------------------|--------------------------|
| AFD - 01 | 1160 | 508 | 493 | 97 |
| AFD - 02 | 935 | 439 | 432 | 98.4 |
| AFD - 03 | 1214 | 772 | 740 | 95.9 |
| AFD - 04 | 1529 | 679 | 608 | 89.5 |
| AFD - 05 | 1333 | 627 | 530 | 84.5 |
| AFD - 06 | 2319 | 1392 | 1311 | 94.2 |
| AFD - 07 | 2452 | 1359 | 1257 | 92.5 |
| AFD - 08 | 2462 | 1278 | 1185 | 92.7 |
| AFD - 09 | 1401 | 916 | 850 | 92.8 |
| AFD - 10 | 843 | 435 | 382 | 87.8 |
| AFD - 11 | 559 | 352 | 328 | 93.2 |
| AFD - 12 | 765 | 470 | 441 | 93.8 |
| AFD - 13 | 990 | 617 | 597 | 96.8 |
| AFD - 14 | 853 | 320 | 314 | 98.1 |
| AFD - 17 | 375 | 214 | 204 | 95.3 |
| Leased | 32640 | 17609 | 15605 | 88.6 |
| PWGSC Managed | 5229 | 2899 | 2581 | 89 |
| OGD | 4137 | 2523 | 2219 | 88 |
| Special: Category for mixed management | 743 | 467 | 423 | 90.6 |
| Canada | 61939 | 33876 | 30500 | 90 |

9.0 Guidelines for Analysis and Release

This section of the documentation outlines the guidelines to be adhered to by users of the NTSS's HTML tables.

9.1 Sample Weighting Guidelines

Data on the proportions and average values of the NTSS's HTML tables are weighted estimates. The population represent the number of people in the target population for each question. The number of respondents represent the number of people who answered these questions.

9.2 CV Release Guidelines

Before using any estimate from the NTSS, users should first determine the quality level of the estimate. The quality levels are acceptable, marginal and unacceptable. Data quality is affected by both sampling and non-sampling errors as discussed in section 8. However for this purpose, the quality level of an estimate will be determined only on the basis of sampling error as reflected by the coefficient of variation as shown in the table below. Nonetheless, users should be sure to read section 8 to be more fully aware of the quality characteristics of these data.

First, the number of respondents who contribute to the calculation of the estimate should be determined. A rough estimate of the number of respondents for a particular cell in a table can be obtained by multiplying the total number of respondents as given in the appropriate column in the last line of the table by the percentage of the estimate given in the cell of interest. If this number is less than 30, the weighted estimate should be considered to be of unacceptable quality.

For weighted estimates based on sample sizes of 30 or more, users should determine the coefficient of variation of the estimate and follow the guidelines below. These quality level guidelines should be applied to weighted rounded estimates.

All estimates can be considered releasable. However, those of marginal or unacceptable quality level must be accompanied by a warning to caution subsequent users.

Quality Level Guidelines

| Quality Level of Estimate | Guidelines |
|----------------------------------|---|
| 1. Acceptable | <p>Estimates have: a sample size of 30 or more, and low coefficients of variation in the range 0.0% - 16.5%</p> <p>No warning is required.</p> |
| 2. Marginal | <p>Estimates have: a sample size of 30 or more, and high coefficients of variation in the range 16.6% - 33.3%.</p> <p>Estimates should be flagged with the letter M (or some similar identifier). They should be accompanied by a warning to caution subsequent users about the high levels of error, associated with the estimates.</p> |
| 3. Unacceptable | <p>Estimates have: a sample size of less than 30, or very high coefficients of variation in excess of 33.3%.</p> <p>Statistics Canada recommends not to release estimates of unacceptable quality. However, if the user chooses to do so then estimates should be flagged with the letter U (or some similar identifier) and the following warning should accompany the estimates:</p> <p>"The user is advised that . . . (specify the data) . . . do not meet Statistics Canada's quality standards for this statistical program. Conclusions based on these data will be unreliable, and most likely invalid. These data and any consequent findings should not be published. If the user chooses to publish these data or findings, then this disclaimer must be published with the data."</p> |

10.0 Approximate Sampling Variability Tables

In order to supply coefficients of variation which would be applicable to a wide variety of categorical estimates produced from the tables of results and which could be readily accessed by the user, a set of Approximate Sampling Variability Tables has been produced. These "look-up" tables allow the user to obtain an approximate coefficient of variation based on the size of the estimate calculated from the survey data.

The coefficients of variation (CV) are derived using the variance formula for simple random sampling and incorporating a factor which reflects the sample design. This factor, known as the design effect, was determined by first calculating design effects for a wide range of characteristics and then choosing from among these a conservative value to be used in the look-up tables which would then apply to the entire set of characteristics.

The table below shows the design effects, sample sizes and population counts by region which were used to produce the Approximate Sampling Variability Tables.

| PROVINCE | DESIGN EFFECT | SAMPLE SIZE | POPULATION |
|-------------------------|---------------|-------------|------------|
| Atlantic | 1.66 | 3,429 | 9,156 |
| Quebec | 1.78 | 2,354 | 6,002 |
| National Capital Region | 2.59 | 13,399 | 65,786 |
| Ontario | 1.68 | 2,950 | 10,243 |
| Western | 2.19 | 5,633 | 16,973 |
| Pacific | 1.96 | 2,735 | 7,987 |
| Canada | 2.61 | 30,500 | 116,148 |

All coefficients of variation in the Approximate Sampling Variability Tables are approximate and, therefore, unofficial. Estimates of actual variance for specific variables may be obtained from Statistics Canada on a cost-recovery basis. The use of actual variance estimates would allow users to release otherwise unreleaseable estimates, i.e. estimates with coefficients of variation in the 'confidential' range.

Remember: if the number of observations on which an estimate is based is less than 30, the weighted estimate should not be released regardless of the value of the coefficient of variation for this estimate. This is because the formulas used for estimating the variance do not hold true for small sample sizes.

10.1 How to use the C.V. tables for Categorical Estimates

The following rules should enable the user to determine the approximate coefficients of variation from the Sampling Variability Tables for estimates of the number, proportion or percentage of the surveyed population possessing a certain characteristic and for ratios and differences between such estimates.

Rule 1: Estimates of Numbers Possessing a Characteristic (Aggregates)

An estimate of the number of people possessing a characteristic can be obtained from the tables of results by multiplying the percentage given in the cell of the results tables by the weighted total given in the last second row of the table.

The coefficient of variation depends only on the size of the estimate itself. On the Sampling Variability Table for the appropriate geographic area, locate the estimated number in the left-most column of the table (headed "Numerator of Percentage") and follow the asterisks (if any) across to the first figure encountered. This figure is the approximate coefficient of variation.

Rule 2: Estimates of Proportions or Percentages Possessing a Characteristic

The coefficient of variation of an estimated proportion or percentage depends on both the size of the proportion or percentage and the size of the total upon which the proportion or percentage is based. Estimated proportions or percentages are relatively more reliable than the corresponding estimates of the numerator of the proportion or percentage, when the proportion or percentage is based upon a sub-group of the population. For example, the proportion of "employees **that would like to see improvement to their physical work environment**" is more reliable than the estimated number of "employees **that would like to see improvement to their physical work environment**". (Note that in the tables the cv's decline in value reading from left to right).

When the proportion or percentage is based upon the total population of the geographic area covered by the table, the cv of the proportion or percentage is the same as the cv of the numerator of the proportion or percentage. In this case, Rule 1 can be used.

When the proportion or percentage is based upon a subset of the total population (e.g. those in their office for less than one year), reference should be made to the proportion or percentage (across the top of the cv table) and to the numerator of the proportion or percentage (down the left side of the table). The intersection of the appropriate row and column gives the coefficient of variation.

Rule 3: Estimates of Differences Between Aggregates or Percentages

The standard error of a difference between two estimates is approximately equal to the square root of the sum of squares of each standard error considered separately. That is, the standard error of a difference ($\hat{d} = \hat{X}_1 - \hat{X}_2$) is:

$$\sigma_{\hat{d}} = \sqrt{(\hat{X}_1 \alpha_1)^2 + (\hat{X}_2 \alpha_2)^2}$$

where \hat{X}_1 is estimate 1, \hat{X}_2 is estimate 2, and α_1 and α_2 are the coefficients of variation of \hat{X}_1 and \hat{X}_2 respectively. The coefficient of variation of \hat{d} is given by $\sigma_{\hat{d}}/\hat{d}$. This formula is accurate for the difference between separate and uncorrelated characteristics, but is only approximate otherwise.

Rule 4: Estimates of Ratios

In the case where the numerator is a subset of the denominator, the ratio should be converted to a percentage and Rule 2 applied. This would apply, for example, to the case where the denominator is the number of "employees in the NCA" and the numerator is the number of "employees in the NCA that would like to see improvement to their physical work environment".

In the case where the numerator is not a subset of the denominator, as for example, the ratio of the number of "employees in the NCA that would like to see improvement to their physical work environment" as compared to the number of "employees in the Pacific that would like to see improvement to their physical work environment", the standard deviation of the ratio of the estimates is approximately equal to the square root of the sum of squares of each coefficient of variation considered separately multiplied by R. That is, the standard error of a ratio ($R = \hat{X}_1 / \hat{X}_2$) is:

$$\sigma_{\hat{R}} = \hat{R} \sqrt{\alpha_1^2 + \alpha_2^2}$$

where α_1 and α_2 are the coefficients of variation of \hat{X}_1 and \hat{X}_2 respectively. The coefficient of variation of R is given by $\sigma_{\hat{R}}/\hat{R}$. The formula will tend to overstate the error, if \hat{X}_1 and \hat{X}_2 are positively correlated and understate the error if \hat{X}_1 and \hat{X}_2 are negatively correlated.

Rule 5: Estimates of Differences of Ratios

In this case, Rules 3 and 4 are combined. The cv's for the two ratios are first determined using Rule 4, and then the cv of their difference is found using Rule 3.

10.1.1 Examples of using the C.V. tables for Categorical Estimates

The following 'real life' examples are included to assist users in applying the foregoing rules.

Example 1 : Estimates of Numbers Possessing a Characteristic (Aggregates)

Suppose that a user estimates that overall, 38,165 employees are very satisfied with the services in their building during the reference period. This estimate was arrived at by taking the percentage of employees who are very satisfied with the services in their building as seen in the results table (33%) and multiplying by the total population in the last second row of the results tables (115,650). How does the user determine the coefficient of variation of this estimate?

- (1) Refer to the CV table for CANADA.
- (2) The estimated aggregate (38,165) does not appear in the left-hand column (the 'Numerator of Percentage' column), so it is necessary to use the figure closest to it, namely 40,000.
- (3) The coefficient of variation for an estimated aggregate is found by referring to the first non asterisk entry on that row, namely, 1.1%.
- (4) So the approximate coefficient of variation of the estimate is 1.1%.

The finding that there were 38,165 employees who are very satisfied with the services in their building during the reference period is publishable with no qualifications.

Example 2 : Estimates of Proportions or Percentages Possessing a Characteristic

Suppose that from the results tables the user notes that 27% of employees in the Atlantic region who have been in the same office for at least a year felt that there were services which had deteriorated compared to one year ago. How does the user determine the coefficient of variation of this estimate?

- (1) Refer to the CV table for ATLANTIC.
- (2) Because the estimate is a percentage which is based on a subset of the total population (i.e., employees who have been in the same office for at least a year), it is necessary to use both the percentage (27.0%) and the numerator portion of the percentage in determining the coefficient of variation.
- (3) Estimate the numerator of the percentage by multiplying the percentage(27%) by the estimate of the population in ATLANTIC (7,951) taken from the last second line of the table. ($0.27 \times 7,951 = 2,147$)
- (4) The numerator, 2,147 does not appear in the left-hand column (the 'Numerator of Percentage' column) so it is necessary to use the figure closest to it, namely 2,100. Similarly, the percentage estimate does not appear as any of the column headings, so it is necessary to use the figure closest to it, 25.0%.
- (5) The figure at the intersection of the row and column used, namely 3.1% is the coefficient of variation to be used.
- (6) So the approximate coefficient of variation of the estimate is 3.1%. The finding that 27% of employees who have been in the same office for at least a year felt that there were services which had deteriorated compared to one year ago can be published with no qualifications.

Example 3 : Estimates of Differences Between Aggregates or Percentages

Suppose that a user notes that 55% of employees in the Western region that would like to see improvement to their physical work environment while 59% of employees in the National Capital Area (NCA) that would like to see improvement to their physical work environment. How does the user determine the coefficient of variation of the difference between these two estimates?

- (1) Using the NCA and Western CV tables in the same manner as described in example 1 gives the numerator of the proportion for employees in Western as 9,330, the CV of the estimate for employees in Western as 1.2%, and the numerator of the estimate for NCA as 38,767 and the CV of the estimate for employees in NCA as 0.9%.
- (2) Using rule 3, the standard error of a difference ($\hat{d} = X_1 - X_2$) is:

$$\sigma_{\hat{d}} = \sqrt{(\hat{X}_1 \alpha_1)^2 + (\hat{X}_2 \alpha_2)^2}$$

where X_1 is estimate 1, X_2 is estimate 2, and α_1 and α_2 are the coefficients of variation of X_1 and X_2 respectively.

That is, the standard error of the difference $\hat{d} = (.59 - .55) = .04$ is:

$$\begin{aligned} \sigma_{\hat{d}} &= \sqrt{[(.59)(.009)]^2 + [(.55)(.012)]^2} \\ &= \sqrt{(.00002820) + (.00008118)} \\ &= 0.0105 \end{aligned}$$

- (3) The coefficient of variation of \hat{d} is given by $\sigma_{\hat{d}}/\hat{d} = .0105/.04 = .26$
- (4) So the approximate coefficient of variation of the difference between the estimates is 26%. This estimate should be flagged with the letter M (or some similar identifier) and should be accompanied by a warning to caution subsequent users about the high levels of error, associated with the estimate.

Example 4 : Estimates of Ratios

Suppose that the user estimates that 38,676 employees in the NCA would like to see improvement to their physical work environment, while 9,330 employees in the Western region that would like to see improvement to their physical work environment. The user is interested in comparing the estimate of Western employees versus that of NCA employees in the form of a ratio. How does the user determine

the coefficient of variation of this estimate?

- (1) First of all, this estimate is a ratio estimate, where the numerator of the estimate ($= X_1$) is the number of employees in the Western region that would like to see improvement to their physical work environment. The denominator of the estimate ($= X_2$) is the number of employees in the NCA that would like to see improvement to their physical work environment.
- (2) Refer to the tables for WESTERN and NATIONAL CAPITAL AREA.
- (3) The numerator of this ratio estimate is 9,330. The figure closest to it is 9,500. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row in the WESTERN table, namely, 1.2%.
- (4) The denominator of this ratio estimate is 38,767. The figure closest to it is 40,000. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row in the NCA table, namely, 0.9%.
- (5) So the approximate coefficient of variation of the ratio estimate is given by rule 4, which is,

$$\alpha_{\hat{R}} = \sqrt{\alpha_1^2 + \alpha_2^2}$$

where α_1 and α_2 are the coefficients of variation of X_1 and X_2 respectively.

That is ,

$$\begin{aligned}\alpha_{\hat{R}} &= \sqrt{(.009)^2 + (.012)^2} \\ &= 0.015\end{aligned}$$

The obtained ratio of NCA versus WESTERN **employees that would like to see improvement to their physical work environment is** 9,330/38,767 which is 0.24:1. The coefficient of variation of this estimate is 1.5%, which is releasable with no qualifications.

10.2 How to use the C.V. tables to obtain Confidence Limits

Although coefficients of variation are widely used, a more intuitively meaningful measure of sampling error is the confidence interval of an estimate. A confidence interval constitutes a statement on the level of confidence that the true value for the population lies within a specified range of values. For example a 95% confidence interval can be described as follows:

If sampling of the population is repeated indefinitely, each sample leading to a new confidence interval for an estimate, then in 95% of the samples the interval will cover the true population value.

Using the standard error of an estimate, confidence intervals for estimates may be obtained under the assumption that under repeated sampling of the population, the various estimates obtained for a population characteristic are normally distributed about the true population value. Under this assumption, the chances are about 68 out of 100 that the difference between a sample estimate and the true population value would be less than one standard error, about 95 out of 100 that the difference would be less than two standard errors, and about 99 out of 100 that the differences would be less than three standard errors. These different degrees of confidence are referred to as the confidence levels.

Confidence intervals for an estimate, \hat{X} , are generally expressed as two numbers, one below the estimate and one above the estimate, as $(\hat{X}-k, \hat{X}+k)$ where k is determined depending upon the level of confidence desired and the sampling error of the estimate.

Confidence intervals for an estimate can be calculated directly from the Approximate Sampling Variability Tables by first determining from the appropriate table the coefficient of variation of the estimate \hat{X} , and then using the following formula to convert to a confidence interval CI:

$$CI_x = [\hat{X} - t\hat{X}\alpha_{\hat{X}}, \hat{X} + t\hat{X}\alpha_{\hat{X}}]$$

where $\alpha_{\hat{X}}$ is the determined coefficient of variation of \hat{X} , and

- t = 1 if a 68% confidence interval is desired
- t = 1.6 if a 90% confidence interval is desired
- t = 2 if a 95% confidence interval is desired
- t = 3 if a 99% confidence interval is desired.

Note: Release guidelines which apply to the estimate also apply to the confidence interval. For example, if the estimate is not releasable, then the confidence interval is not releasable either.

10.2.1 Example of using the C.V. tables to obtain confidence limits

A 95% confidence interval for the estimated proportion of employees in the Atlantic region who have been in the same office for at least a year felt that there were services which had deteriorated compared to one year ago (from Example 2, section 10.2) would be calculated as follows.

$$\hat{X} = 27\% \text{ (or expressed as a proportion = .27)}$$

$$t = 2$$

$\alpha_X = 3.1\%$ (.031 expressed as a proportion) is the coefficient of variation of this estimate as determined from the tables.

$$CI_X = \{.27 - (2) (.27) (.031), .27 + (2) (.27) (.031)\}$$

$$CI_X = \{.27 - .017, .27 + .017\}$$

$$CI_X = \{0.253, 0.287\}$$

With 95% confidence it can be said that between 25.3% and 28.7% of employees who have been in the same office for at least a year felt that there were services which had deteriorated compared to one year ago.

10.3 How to use the C.V. tables to do a t-test

Standard errors may also be used to perform hypothesis testing, a procedure for distinguishing between population parameters using sample estimates. The sample estimates can be numbers, averages, percentages, ratios, etc. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

Let X_1 and X_2 be sample estimates for 2 characteristics of interest. Let the standard error on the difference $X_1 - X_2$ be σ_d .

If $t = \frac{\hat{X}_1 - \hat{X}_2}{\sigma_d}$ is between -2 and 2, then no conclusion about the difference

between the characteristics is justified at the 5% level of significance. If however, this ratio is smaller than -2 or larger than +2, the observed difference is significant at the 0.05 level. That is to say that the characteristics are significant.

10.3.1 Example of using the C.V. tables to do a t-test

Let us suppose we wish to test, at a 5% level of significance, the hypothesis that there is no difference between the proportion of employees in the Western Region that would like to see improvement to their physical work environment and the proportion of employees in the NCA that would like to see improvement to their physical work environment. From example 3, section 10.2, the standard error of the difference between these two estimates was found to be = 0.0105 Hence,

$$t = \frac{\hat{X}_1 - \hat{X}_2}{\sigma_{\hat{d}}} = \frac{.59 - .55}{.0105} = \frac{.04}{.0105} = 3.81.$$

Since t = 3.81 is greater than 2, it must be concluded that there is a significant difference between the two estimates at the 0.05 level of significance.

10.4 Release cut-off's for the National Tenant Satisfaction Survey

The minimum size of the estimate at the provincial, regional and Canada levels are specified in the table below. Estimates smaller than the minimum size given in the "Not Releasable" column may not be released under any circumstances.

Table of Release Cut-offs

| Region | Acceptable | Marginal | Unacceptable |
|-------------------------|------------|-------------|--------------|
| Atlantic | 101 & over | 25 to < 101 | under 25 |
| Quebec | 100 & over | 25 to < 100 | under 25 |
| National Capital Region | 370 & over | 91 to < 370 | under 91 |
| Ontario | 151 & over | 38 to < 151 | under 38 |
| Western | 161 & over | 40 to < 161 | under 40 |
| Pacific | 136 & over | 34 to < 136 | under 34 |
| CANADA | 269 & over | 66 to < 269 | under 66 |

10.5 C.V. Tables

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Approximate Sampling Variability Tables for Atlantic

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | ***** | 52.4 | 52.1 | 51.3 | 50.0 | 48.5 | 47.1 | 45.6 | 44.1 | 42.5 | 40.8 | 37.2 | 28.8 | 16.7 |
| 20 | ***** | 37.0 | 36.9 | 36.3 | 35.3 | 34.3 | 33.3 | 32.2 | 31.2 | 30.0 | 28.8 | 26.3 | 20.4 | 11.8 |
| 30 | ***** | 30.2 | 30.1 | 29.6 | 28.8 | 28.0 | 27.2 | 26.3 | 25.4 | 24.5 | 23.5 | 21.5 | 16.7 | 9.6 |
| 40 | ***** | 26.2 | 26.1 | 25.7 | 25.0 | 24.3 | 23.5 | 22.8 | 22.0 | 21.2 | 20.4 | 18.6 | 14.4 | 8.3 |
| 50 | ***** | 23.4 | 23.3 | 23.0 | 22.3 | 21.7 | 21.1 | 20.4 | 19.7 | 19.0 | 18.2 | 16.7 | 12.9 | 7.4 |
| 60 | ***** | 21.4 | 21.3 | 21.0 | 20.4 | 19.8 | 19.2 | 18.6 | 18.0 | 17.3 | 16.7 | 15.2 | 11.8 | 6.8 |
| 70 | ***** | 19.8 | 19.7 | 19.4 | 18.9 | 18.3 | 17.8 | 17.2 | 16.7 | 16.0 | 15.4 | 14.1 | 10.9 | 6.3 |
| 80 | ***** | 18.5 | 18.4 | 18.1 | 17.7 | 17.2 | 16.7 | 16.1 | 15.6 | 15.0 | 14.4 | 13.2 | 10.2 | 5.9 |
| 90 | ***** | 17.5 | 17.4 | 17.1 | 16.7 | 16.2 | 15.7 | 15.2 | 14.7 | 14.2 | 13.6 | 12.4 | 9.6 | 5.6 |
| 100 | ***** | ***** | 16.5 | 16.2 | 15.8 | 15.4 | 14.9 | 14.4 | 13.9 | 13.4 | 12.9 | 11.8 | 9.1 | 5.3 |
| 200 | ***** | ***** | ***** | 11.5 | 11.2 | 10.9 | 10.5 | 10.2 | 9.9 | 9.5 | 9.1 | 8.3 | 6.4 | 3.7 |
| 300 | ***** | ***** | ***** | 9.4 | 9.1 | 8.9 | 8.6 | 8.3 | 8.0 | 7.8 | 7.4 | 6.8 | 5.3 | 3.0 |
| 400 | ***** | ***** | ***** | 8.1 | 7.9 | 7.7 | 7.4 | 7.2 | 7.0 | 6.7 | 6.4 | 5.9 | 4.6 | 2.6 |
| 500 | ***** | ***** | ***** | ***** | 7.1 | 6.9 | 6.7 | 6.4 | 6.2 | 6.0 | 5.8 | 5.3 | 4.1 | 2.4 |
| 600 | ***** | ***** | ***** | ***** | 6.4 | 6.3 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 4.8 | 3.7 | 2.1 |
| 700 | ***** | ***** | ***** | ***** | 6.0 | 5.8 | 5.6 | 5.5 | 5.3 | 5.1 | 4.9 | 4.5 | 3.4 | 2.0 |
| 800 | ***** | ***** | ***** | ***** | 5.6 | 5.4 | 5.3 | 5.1 | 4.9 | 4.7 | 4.6 | 4.2 | 3.2 | 1.9 |
| 900 | ***** | ***** | ***** | ***** | 5.3 | 5.1 | 5.0 | 4.8 | 4.6 | 4.5 | 4.3 | 3.9 | 3.0 | 1.8 |
| 1000 | ***** | ***** | ***** | ***** | 4.9 | 4.7 | 4.6 | 4.4 | 4.2 | 4.1 | 3.7 | 2.9 | 1.7 | 1.1 |
| 1100 | ***** | ***** | ***** | ***** | 4.6 | 4.5 | 4.3 | 4.2 | 4.0 | 3.9 | 3.5 | 2.7 | 1.6 | 1.0 |
| 1200 | ***** | ***** | ***** | ***** | 4.4 | 4.3 | 4.2 | 4.0 | 3.9 | 3.7 | 3.4 | 2.6 | 1.5 | 0.9 |
| 1300 | ***** | ***** | ***** | ***** | 4.3 | 4.1 | 4.0 | 3.9 | 3.7 | 3.6 | 3.3 | 2.5 | 1.5 | 0.9 |
| 1400 | ***** | ***** | ***** | ***** | 4.0 | 3.9 | 3.7 | 3.6 | 3.4 | 3.1 | 2.4 | 1.4 | 1.4 | 0.8 |
| 1500 | ***** | ***** | ***** | ***** | 3.8 | 3.7 | 3.6 | 3.5 | 3.3 | 3.0 | 2.4 | 1.4 | 1.4 | 0.8 |
| 1600 | ***** | ***** | ***** | ***** | 3.7 | 3.6 | 3.5 | 3.4 | 3.2 | 2.9 | 2.3 | 1.3 | 1.3 | 0.8 |
| 1700 | ***** | ***** | ***** | ***** | 3.6 | 3.5 | 3.4 | 3.3 | 3.1 | 2.9 | 2.2 | 1.3 | 1.3 | 0.8 |
| 1800 | ***** | ***** | ***** | ***** | 3.5 | 3.4 | 3.3 | 3.2 | 3.0 | 2.8 | 2.1 | 1.2 | 1.2 | 0.7 |
| 1900 | ***** | ***** | ***** | ***** | 3.3 | 3.2 | 3.1 | 3.0 | 2.7 | 2.5 | 1.9 | 1.1 | 1.1 | 0.7 |
| 2000 | ***** | ***** | ***** | ***** | 3.2 | 3.1 | 3.0 | 2.9 | 2.6 | 2.4 | 1.9 | 1.1 | 1.1 | 0.7 |
| 2100 | ***** | ***** | ***** | ***** | 3.1 | 3.0 | 2.9 | 2.8 | 2.6 | 2.4 | 1.8 | 1.1 | 1.1 | 0.7 |
| 2200 | ***** | ***** | ***** | ***** | 3.1 | 3.0 | 2.9 | 2.7 | 2.5 | 1.9 | 1.1 | 1.1 | 1.1 | 0.7 |
| 2300 | ***** | ***** | ***** | ***** | ***** | 2.9 | 2.8 | 2.7 | 2.5 | 1.9 | 1.1 | 1.1 | 1.1 | 0.7 |
| 2400 | ***** | ***** | ***** | ***** | ***** | 2.8 | 2.7 | 2.6 | 2.4 | 1.9 | 1.1 | 1.1 | 1.1 | 0.7 |
| 2500 | ***** | ***** | ***** | ***** | ***** | 2.8 | 2.7 | 2.6 | 2.4 | 1.8 | 1.1 | 1.1 | 1.1 | 0.7 |
| 3000 | ***** | ***** | ***** | ***** | ***** | 2.5 | 2.4 | 2.1 | 1.7 | 1.0 | 0.7 | 0.7 | 0.7 | 0.4 |
| 3500 | ***** | ***** | ***** | ***** | ***** | 2.2 | 2.0 | 1.5 | 0.9 | 0.6 | 0.4 | 0.4 | 0.4 | 0.3 |
| 4000 | ***** | ***** | ***** | ***** | ***** | 1.9 | 1.4 | 0.8 | 0.5 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| 4500 | ***** | ***** | ***** | ***** | ***** | 1.8 | 1.4 | 0.8 | 0.5 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| 5000 | ***** | ***** | ***** | ***** | ***** | 1.3 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 5500 | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 6000 | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 6500 | ***** | ***** | ***** | ***** | ***** | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 7000 | ***** | ***** | ***** | ***** | ***** | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 7500 | ***** | ***** | ***** | ***** | ***** | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 8000 | ***** | ***** | ***** | ***** | ***** | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

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Approximate Sampling Variability Tables for Quebec (exclude NCR)

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | ***** | 52.3 | 52.0 | 51.2 | 49.8 | 48.4 | 47.0 | 45.5 | 43.9 | 42.3 | 40.7 | 37.1 | 28.8 | 16.6 |
| 20 | ***** | 37.0 | 36.8 | 36.2 | 35.2 | 34.2 | 33.2 | 32.2 | 31.1 | 29.9 | 28.8 | 26.3 | 20.3 | 11.7 |
| 30 | ***** | 30.2 | 30.0 | 29.6 | 28.8 | 28.0 | 27.1 | 26.3 | 25.4 | 24.4 | 23.5 | 21.4 | 16.6 | 9.6 |
| 40 | ***** | 26.1 | 26.0 | 25.6 | 24.9 | 24.2 | 23.5 | 22.7 | 22.0 | 21.2 | 20.3 | 18.6 | 14.4 | 8.3 |
| 50 | ***** | 23.4 | 23.3 | 22.9 | 22.3 | 21.7 | 21.0 | 20.3 | 19.7 | 18.9 | 18.2 | 16.6 | 12.9 | 7.4 |
| 60 | ***** | 21.3 | 21.2 | 20.9 | 20.3 | 19.8 | 19.2 | 18.6 | 17.9 | 17.3 | 16.6 | 15.2 | 11.7 | 6.8 |
| 70 | ***** | ***** | 19.7 | 19.3 | 18.8 | 18.3 | 17.8 | 17.2 | 16.6 | 16.0 | 15.4 | 14.0 | 10.9 | 6.3 |
| 80 | ***** | ***** | 18.4 | 18.1 | 17.6 | 17.1 | 16.6 | 16.1 | 15.5 | 15.0 | 14.4 | 13.1 | 10.2 | 5.9 |
| 90 | ***** | ***** | 17.3 | 17.1 | 16.6 | 16.1 | 15.7 | 15.2 | 14.6 | 14.1 | 13.6 | 12.4 | 9.6 | 5.5 |
| 100 | ***** | ***** | 16.4 | 16.2 | 15.8 | 15.3 | 14.9 | 14.4 | 13.9 | 13.4 | 12.9 | 11.7 | 9.1 | 5.3 |
| 200 | ***** | ***** | ***** | 11.4 | 11.1 | 10.8 | 10.5 | 10.2 | 9.8 | 9.5 | 9.1 | 8.3 | 6.4 | 3.7 |
| 300 | ***** | ***** | ***** | 9.3 | 9.1 | 8.8 | 8.6 | 8.3 | 8.0 | 7.7 | 7.4 | 6.8 | 5.3 | 3.0 |
| 400 | ***** | ***** | ***** | ***** | 7.9 | 7.7 | 7.4 | 7.2 | 6.9 | 6.7 | 6.4 | 5.9 | 4.5 | 2.6 |
| 500 | ***** | ***** | ***** | ***** | 7.0 | 6.8 | 6.6 | 6.4 | 6.2 | 6.0 | 5.8 | 5.3 | 4.1 | 2.3 |
| 600 | ***** | ***** | ***** | ***** | 6.4 | 6.3 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 4.8 | 3.7 | 2.1 |
| 700 | ***** | ***** | ***** | ***** | ***** | 5.8 | 5.6 | 5.4 | 5.3 | 5.1 | 4.9 | 4.4 | 3.4 | 2.0 |
| 800 | ***** | ***** | ***** | ***** | ***** | 5.4 | 5.3 | 5.1 | 4.9 | 4.7 | 4.5 | 4.2 | 3.2 | 1.9 |
| 900 | ***** | ***** | ***** | ***** | ***** | 5.1 | 5.0 | 4.8 | 4.6 | 4.5 | 4.3 | 3.9 | 3.0 | 1.8 |
| 1000 | ***** | ***** | ***** | ***** | ***** | ***** | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 | 3.7 | 2.9 | 1.7 |
| 1100 | ***** | ***** | ***** | ***** | ***** | ***** | 4.5 | 4.3 | 4.2 | 4.0 | 3.9 | 3.5 | 2.7 | 1.6 |
| 1200 | ***** | ***** | ***** | ***** | ***** | ***** | 4.3 | 4.2 | 4.0 | 3.9 | 3.7 | 3.4 | 2.6 | 1.5 |
| 1300 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 4.0 | 3.9 | 3.7 | 3.6 | 3.3 | 2.5 | 1.5 |
| 1400 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.8 | 3.7 | 3.6 | 3.4 | 3.1 | 2.4 | 1.4 |
| 1500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.7 | 3.6 | 3.5 | 3.3 | 3.0 | 2.3 | 1.4 |
| 1600 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.5 | 3.3 | 3.2 | 2.9 | 2.3 | 1.3 |
| 1700 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.4 | 3.2 | 3.1 | 2.8 | 2.2 | 1.3 |
| 1800 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.3 | 3.2 | 3.0 | 2.8 | 2.1 | 1.2 |
| 1900 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.1 | 3.0 | 2.7 | 2.1 | 1.2 |
| 2000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.0 | 2.9 | 2.6 | 2.0 | 1.2 |
| 2100 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.9 | 2.6 | 2.0 | 1.1 |
| 2200 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.7 | 2.5 | 1.9 |
| 2300 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.7 | 2.4 | 1.9 |
| 2400 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.6 | 2.4 | 1.9 |
| 2500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.3 | 1.8 |
| 3000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.1 | 1.7 |
| 3500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.5 |
| 4000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.4 |
| 4500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.8 |
| 5000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.7 |

National Tenant Satisfaction Survey - Survey documentation

National Tenant Satisfaction Survey (NTSS) 2001 - 2002

Approximate Sampling Variability Tables for National Capital Region (include Nunavut)

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | 100.6 | 100.1 | 99.6 | 98.1 | 95.5 | 92.8 | 90.0 | 87.1 | 84.2 | 81.1 | 77.9 | 71.2 | 55.1 | 31.8 |
| 20 | 71.1 | 70.8 | 70.4 | 69.4 | 67.5 | 65.6 | 63.6 | 61.6 | 59.5 | 57.4 | 55.1 | 50.3 | 39.0 | 22.5 |
| 30 | 58.1 | 57.8 | 57.5 | 56.6 | 55.1 | 53.6 | 52.0 | 50.3 | 48.6 | 46.8 | 45.0 | 41.1 | 31.8 | 18.4 |
| 40 | 50.3 | 50.1 | 49.8 | 49.0 | 47.7 | 46.4 | 45.0 | 43.6 | 42.1 | 40.6 | 39.0 | 35.6 | 27.6 | 15.9 |
| 50 | 45.0 | 44.8 | 44.6 | 43.9 | 42.7 | 41.5 | 40.3 | 39.0 | 37.7 | 36.3 | 34.9 | 31.8 | 24.6 | 14.2 |
| 60 | 41.1 | 40.9 | 40.7 | 40.0 | 39.0 | 37.9 | 36.7 | 35.6 | 34.4 | 33.1 | 31.8 | 29.0 | 22.5 | 13.0 |
| 70 | ***** | 37.8 | 37.7 | 37.1 | 36.1 | 35.1 | 34.0 | 32.9 | 31.8 | 30.7 | 29.5 | 26.9 | 20.8 | 12.0 |
| 80 | ***** | 35.4 | 35.2 | 34.7 | 33.8 | 32.8 | 31.8 | 30.8 | 29.8 | 28.7 | 27.6 | 25.2 | 19.5 | 11.3 |
| 90 | ***** | 33.4 | 33.2 | 32.7 | 31.8 | 30.9 | 30.0 | 29.0 | 28.1 | 27.0 | 26.0 | 23.7 | 18.4 | 10.6 |
| 100 | ***** | 31.7 | 31.5 | 31.0 | 30.2 | 29.3 | 28.5 | 27.6 | 26.6 | 25.7 | 24.6 | 22.5 | 17.4 | 10.1 |
| 200 | ***** | 22.4 | 22.3 | 21.9 | 21.3 | 20.7 | 20.1 | 19.5 | 18.8 | 18.1 | 17.4 | 15.9 | 12.3 | 7.1 |
| 300 | ***** | 18.3 | 18.2 | 17.9 | 17.4 | 16.9 | 16.4 | 15.9 | 15.4 | 14.8 | 14.2 | 13.0 | 10.1 | 5.8 |
| 400 | ***** | 15.8 | 15.8 | 15.5 | 15.1 | 14.7 | 14.2 | 13.8 | 13.3 | 12.8 | 12.3 | 11.3 | 8.7 | 5.0 |
| 500 | ***** | 14.2 | 14.1 | 13.9 | 13.5 | 13.1 | 12.7 | 12.3 | 11.9 | 11.5 | 11.0 | 10.1 | 7.8 | 4.5 |
| 600 | ***** | 12.9 | 12.9 | 12.7 | 12.3 | 12.0 | 11.6 | 11.3 | 10.9 | 10.5 | 10.1 | 9.2 | 7.1 | 4.1 |
| 700 | ***** | 11.9 | 11.7 | 11.4 | 11.1 | 10.8 | 10.4 | 10.1 | 9.7 | 9.4 | 9.1 | 8.7 | 8.0 | 6.2 |
| 800 | ***** | 11.1 | 11.0 | 10.7 | 10.4 | 10.1 | 9.7 | 9.4 | 9.1 | 8.7 | 8.0 | 6.2 | 4.8 | 2.8 |
| 900 | ***** | 10.5 | 10.3 | 10.1 | 9.8 | 9.5 | 9.2 | 8.9 | 8.6 | 8.2 | 7.5 | 5.8 | 3.4 | 2.0 |
| 1000 | ***** | 10.0 | 9.8 | 9.5 | 9.3 | 9.0 | 8.7 | 8.4 | 8.1 | 7.8 | 7.1 | 5.5 | 3.2 | 1.9 |
| 1100 | ***** | 9.5 | 9.4 | 9.1 | 8.8 | 8.6 | 8.3 | 8.0 | 7.7 | 7.4 | 6.8 | 5.3 | 3.0 | 1.8 |
| 1200 | ***** | 9.1 | 9.0 | 8.7 | 8.5 | 8.2 | 8.0 | 7.7 | 7.4 | 7.1 | 6.5 | 5.0 | 2.9 | 1.7 |
| 1300 | ***** | 8.7 | 8.6 | 8.4 | 8.1 | 7.9 | 7.6 | 7.4 | 7.1 | 6.8 | 6.2 | 4.7 | 2.8 | 1.6 |
| 1400 | ***** | 8.3 | 8.1 | 7.8 | 7.6 | 7.4 | 7.1 | 6.9 | 6.6 | 6.0 | 4.8 | 2.7 | 1.6 | 1.0 |
| 1500 | ***** | 8.0 | 7.8 | 7.6 | 7.3 | 7.1 | 6.9 | 6.6 | 6.4 | 5.8 | 4.5 | 2.6 | 1.5 | 0.9 |
| 1600 | ***** | 7.8 | 7.5 | 7.3 | 7.1 | 6.9 | 6.7 | 6.4 | 6.2 | 5.6 | 4.4 | 2.5 | 1.4 | 0.8 |
| 1700 | ***** | 7.5 | 7.3 | 7.1 | 6.9 | 6.7 | 6.5 | 6.2 | 6.0 | 5.5 | 4.2 | 2.4 | 1.3 | 0.7 |
| 1800 | ***** | 7.3 | 7.1 | 6.9 | 6.7 | 6.5 | 6.3 | 6.0 | 5.8 | 5.3 | 4.1 | 2.3 | 1.2 | 0.6 |
| 1900 | ***** | 7.1 | 6.9 | 6.7 | 6.5 | 6.3 | 6.1 | 5.9 | 5.7 | 5.2 | 4.0 | 2.4 | 1.3 | 0.5 |
| 2000 | ***** | 6.9 | 6.8 | 6.6 | 6.4 | 6.2 | 6.0 | 5.7 | 5.5 | 5.0 | 3.9 | 2.3 | 1.2 | 0.4 |
| 2100 | ***** | 6.8 | 6.6 | 6.4 | 6.2 | 6.0 | 5.8 | 5.6 | 5.4 | 4.9 | 3.8 | 2.2 | 1.1 | 0.3 |
| 2200 | ***** | 6.6 | 6.4 | 6.3 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 4.8 | 3.7 | 2.1 | 1.0 | 0.2 |
| 2300 | ***** | 6.5 | 6.3 | 6.1 | 5.9 | 5.7 | 5.6 | 5.3 | 5.1 | 4.7 | 3.6 | 2.1 | 1.0 | 0.2 |
| 2400 | ***** | 6.3 | 6.2 | 6.0 | 5.8 | 5.6 | 5.4 | 5.2 | 5.0 | 4.6 | 3.6 | 2.1 | 1.0 | 0.2 |
| 2500 | ***** | 6.2 | 6.0 | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.5 | 3.5 | 2.0 | 1.0 | 0.2 |
| 3000 | ***** | 5.7 | 5.5 | 5.4 | 5.2 | 5.0 | 4.9 | 4.7 | 4.5 | 4.1 | 3.2 | 1.8 | 0.9 | 0.1 |
| 3500 | ***** | 5.1 | 5.0 | 4.8 | 4.7 | 4.5 | 4.4 | 4.3 | 4.2 | 3.8 | 2.9 | 1.7 | 0.9 | 0.1 |
| 4000 | ***** | 4.8 | 4.6 | 4.5 | 4.4 | 4.2 | 4.1 | 4.0 | 3.8 | 3.4 | 2.6 | 1.5 | 0.8 | 0.1 |
| 4500 | ***** | 4.5 | 4.4 | 4.2 | 4.1 | 4.0 | 3.8 | 3.7 | 3.6 | 3.2 | 2.4 | 1.4 | 0.8 | 0.1 |
| 5000 | ***** | 4.3 | 4.1 | 4.0 | 3.9 | 3.8 | 3.6 | 3.5 | 3.4 | 3.0 | 2.2 | 1.3 | 0.7 | 0.1 |
| 5500 | ***** | 4.1 | 4.0 | 3.8 | 3.7 | 3.6 | 3.5 | 3.3 | 3.0 | 2.4 | 1.4 | 0.8 | 0.5 | 0.1 |
| 6000 | ***** | 3.9 | 3.8 | 3.7 | 3.6 | 3.4 | 3.3 | 3.2 | 2.9 | 2.3 | 1.3 | 0.7 | 0.4 | 0.1 |
| 6500 | ***** | 3.7 | 3.6 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 2.8 | 2.2 | 1.2 | 0.7 | 0.4 | 0.1 |
| 7000 | ***** | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.7 | 2.1 | 1.1 | 0.6 | 0.3 | 0.1 |
| 7500 | ***** | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.6 | 2.0 | 1.1 | 0.6 | 0.3 | 0.1 |
| 8000 | ***** | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.4 | 1.9 | 1.1 | 0.6 | 0.3 | 0.1 |
| 8500 | ***** | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.4 | 1.9 | 1.1 | 0.6 | 0.3 | 0.1 |
| 9000 | ***** | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.4 | 2.1 | 1.6 | 0.9 | 0.5 | 0.2 | 0.1 |
| 9500 | ***** | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.3 | 2.0 | 1.5 | 0.8 | 0.5 | 0.2 | 0.1 |
| 10000 | ***** | 2.8 | 2.8 | 2.7 | 2.6 | 2.5 | 2.3 | 2.1 | 1.8 | 1.2 | 0.7 | 0.4 | 0.2 | 0.1 |
| 12500 | ***** | 2.5 | 2.5 | 2.4 | 2.3 | 2.2 | 2.0 | 1.8 | 1.6 | 1.1 | 0.6 | 0.3 | 0.1 | 0.1 |
| 15000 | ***** | 2.3 | 2.2 | 2.1 | 2.0 | 1.8 | 1.6 | 1.4 | 1.2 | 0.8 | 0.5 | 0.2 | 0.1 | 0.1 |
| 20000 | ***** | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.2 | 1.0 | 0.8 | 0.5 | 0.2 | 0.1 | 0.1 | 0.1 |
| 25000 | ***** | 1.6 | 1.4 | 1.3 | 1.2 | 1.1 | 0.9 | 0.7 | 0.6 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 |
| 30000 | ***** | 1.3 | 1.0 | 0.9 | 0.8 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| 35000 | ***** | 0.9 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| 40000 | ***** | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 45000 | ***** | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 50000 | ***** | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 55000 | ***** | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

National Tenant Satisfaction Survey - Survey documentation

National Tenant Satisfaction Survey (NTSS) 2001 - 2002

Approximate Sampling Variability Tables for Ontario (exclude NCR)

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | 64.4 | 64.1 | 63.8 | 62.8 | 61.1 | 59.4 | 57.6 | 55.8 | 53.9 | 52.0 | 49.9 | 45.6 | 35.3 | 20.4 |
| 20 | ***** | 45.3 | 45.1 | 44.4 | 43.2 | 42.0 | 40.8 | 39.5 | 38.1 | 36.7 | 35.3 | 32.2 | 25.0 | 14.4 |
| 30 | ***** | 37.0 | 36.8 | 36.3 | 35.3 | 34.3 | 33.3 | 32.2 | 31.1 | 30.0 | 28.8 | 26.3 | 20.4 | 11.8 |
| 40 | ***** | 32.1 | 31.9 | 31.4 | 30.6 | 29.7 | 28.8 | 27.9 | 27.0 | 26.0 | 25.0 | 22.8 | 17.6 | 10.2 |
| 50 | ***** | 28.7 | 28.5 | 28.1 | 27.3 | 26.6 | 25.8 | 25.0 | 24.1 | 23.2 | 22.3 | 20.4 | 15.8 | 9.1 |
| 60 | ***** | 26.2 | 26.0 | 25.6 | 25.0 | 24.3 | 23.5 | 22.8 | 22.0 | 21.2 | 20.4 | 18.6 | 14.4 | 8.3 |
| 70 | ***** | 24.2 | 24.1 | 23.7 | 23.1 | 22.5 | 21.8 | 21.1 | 20.4 | 19.6 | 18.9 | 17.2 | 13.3 | 7.7 |
| 80 | ***** | 22.7 | 22.6 | 22.2 | 21.6 | 21.0 | 20.4 | 19.7 | 19.1 | 18.4 | 17.6 | 16.1 | 12.5 | 7.2 |
| 90 | ***** | 21.4 | 21.3 | 20.9 | 20.4 | 19.8 | 19.2 | 18.6 | 18.0 | 17.3 | 16.6 | 15.2 | 11.8 | 6.8 |
| 100 | ***** | 20.3 | 20.2 | 19.9 | 19.3 | 18.8 | 18.2 | 17.6 | 17.1 | 16.4 | 15.8 | 14.4 | 11.2 | 6.4 |
| 200 | ***** | ***** | 14.3 | 14.0 | 13.7 | 13.3 | 12.9 | 12.5 | 12.1 | 11.6 | 11.2 | 10.2 | 7.9 | 4.6 |
| 300 | ***** | ***** | ***** | 11.5 | 11.2 | 10.8 | 10.5 | 10.2 | 9.8 | 9.5 | 9.1 | 8.3 | 6.4 | 3.7 |
| 400 | ***** | ***** | ***** | 9.9 | 9.7 | 9.4 | 9.1 | 8.8 | 8.5 | 8.2 | 7.9 | 7.2 | 5.6 | 3.2 |
| 500 | ***** | ***** | ***** | 8.9 | 8.6 | 8.4 | 8.2 | 7.9 | 7.6 | 7.3 | 7.1 | 6.4 | 5.0 | 2.9 |
| 600 | ***** | ***** | ***** | ***** | 7.9 | 7.7 | 7.4 | 7.2 | 7.0 | 6.7 | 6.4 | 5.9 | 4.6 | 2.6 |
| 700 | ***** | ***** | ***** | ***** | 7.3 | 7.1 | 6.9 | 6.7 | 6.4 | 6.2 | 6.0 | 5.4 | 4.2 | 2.4 |
| 800 | ***** | ***** | ***** | ***** | 6.8 | 6.6 | 6.4 | 6.2 | 6.0 | 5.8 | 5.6 | 5.1 | 3.9 | 2.3 |
| 900 | ***** | ***** | ***** | ***** | 6.4 | 6.3 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 4.8 | 3.7 | 2.1 |
| 1000 | ***** | ***** | ***** | ***** | 6.1 | 5.9 | 5.8 | 5.6 | 5.4 | 5.2 | 5.0 | 4.6 | 3.5 | 2.0 |
| 1100 | ***** | ***** | ***** | ***** | ***** | 5.7 | 5.5 | 5.3 | 5.1 | 5.0 | 4.8 | 4.3 | 3.4 | 1.9 |
| 1200 | ***** | ***** | ***** | ***** | ***** | 5.4 | 5.3 | 5.1 | 4.9 | 4.7 | 4.6 | 4.2 | 3.2 | 1.9 |
| 1300 | ***** | ***** | ***** | ***** | ***** | 5.2 | 5.1 | 4.9 | 4.7 | 4.6 | 4.4 | 4.0 | 3.1 | 1.8 |
| 1400 | ***** | ***** | ***** | ***** | ***** | 5.0 | 4.9 | 4.7 | 4.6 | 4.4 | 4.2 | 3.9 | 3.0 | 1.7 |
| 1500 | ***** | ***** | ***** | ***** | ***** | 4.9 | 4.7 | 4.6 | 4.4 | 4.2 | 4.1 | 3.7 | 2.9 | 1.7 |
| 1600 | ***** | ***** | ***** | ***** | ***** | 4.6 | 4.4 | 4.3 | 4.1 | 3.9 | 3.6 | 2.8 | 1.6 | 1.6 |
| 1700 | ***** | ***** | ***** | ***** | ***** | 4.4 | 4.3 | 4.1 | 4.0 | 3.8 | 3.5 | 2.7 | 1.6 | 1.6 |
| 1800 | ***** | ***** | ***** | ***** | ***** | 4.3 | 4.2 | 4.0 | 3.9 | 3.7 | 3.4 | 2.6 | 1.5 | 1.5 |
| 1900 | ***** | ***** | ***** | ***** | ***** | 4.2 | 4.0 | 3.9 | 3.8 | 3.6 | 3.3 | 2.6 | 1.5 | 1.5 |
| 2000 | ***** | ***** | ***** | ***** | ***** | 4.1 | 3.9 | 3.8 | 3.7 | 3.5 | 3.2 | 2.5 | 1.4 | 1.4 |
| 2100 | ***** | ***** | ***** | ***** | ***** | ***** | 3.9 | 3.7 | 3.6 | 3.4 | 3.1 | 2.4 | 1.4 | 1.4 |
| 2200 | ***** | ***** | ***** | ***** | ***** | ***** | 3.8 | 3.6 | 3.5 | 3.4 | 3.1 | 2.4 | 1.4 | 1.4 |
| 2300 | ***** | ***** | ***** | ***** | ***** | ***** | 3.7 | 3.6 | 3.4 | 3.3 | 3.0 | 2.3 | 1.3 | 1.3 |
| 2400 | ***** | ***** | ***** | ***** | ***** | ***** | 3.6 | 3.5 | 3.4 | 3.2 | 2.9 | 2.3 | 1.3 | 1.3 |
| 2500 | ***** | ***** | ***** | ***** | ***** | ***** | 3.5 | 3.4 | 3.3 | 3.2 | 2.9 | 2.2 | 1.3 | 1.3 |
| 3000 | ***** | ***** | ***** | ***** | ***** | ***** | 3.1 | 3.0 | 2.9 | 2.6 | 2.0 | 1.2 | 1.2 | 1.2 |
| 3500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.8 | 2.7 | 2.4 | 1.9 | 1.1 | 1.1 | 1.1 |
| 4000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.5 | 2.3 | 1.8 | 1.0 | 1.0 | 1.0 |
| 4500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.1 | 1.7 | 1.0 | 1.0 | 1.0 |
| 5000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.0 | 1.6 | 0.9 | 0.9 | 0.9 |
| 5500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.5 | 0.9 | 0.9 | 0.9 |
| 6000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.4 | 0.8 | 0.8 | 0.8 |
| 6500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.4 | 0.8 | 0.8 | 0.8 |
| 7000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.3 | 0.8 | 0.8 | 0.8 |
| 7500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.7 | 0.7 | 0.7 |
| 8000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.7 | 0.7 | 0.7 |
| 8500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.7 | 0.7 | 0.7 |
| 9000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.7 | 0.7 | 0.7 |

National Tenant Satisfaction Survey - Survey documentation

National Tenant Satisfaction Survey (NTSS) 2001 - 2002

Approximate Sampling Variability Tables for Western (include NWT)

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | 66.4 | 66.1 | 65.7 | 64.7 | 63.0 | 61.2 | 59.4 | 57.5 | 55.6 | 53.5 | 51.4 | 47.0 | 36.4 | 21.0 |
| 20 | ***** | 46.7 | 46.5 | 45.8 | 44.5 | 43.3 | 42.0 | 40.7 | 39.3 | 37.9 | 36.4 | 33.2 | 25.7 | 14.8 |
| 30 | ***** | 38.1 | 37.9 | 37.4 | 36.4 | 35.3 | 34.3 | 33.2 | 32.1 | 30.9 | 29.7 | 27.1 | 21.0 | 12.1 |
| 40 | ***** | 33.0 | 32.9 | 32.4 | 31.5 | 30.6 | 29.7 | 28.8 | 27.8 | 26.8 | 25.7 | 23.5 | 18.2 | 10.5 |
| 50 | ***** | 29.5 | 29.4 | 28.9 | 28.2 | 27.4 | 26.6 | 25.7 | 24.8 | 23.9 | 23.0 | 21.0 | 16.3 | 9.4 |
| 60 | ***** | 27.0 | 26.8 | 26.4 | 25.7 | 25.0 | 24.2 | 23.5 | 22.7 | 21.9 | 21.0 | 19.2 | 14.8 | 8.6 |
| 70 | ***** | 25.0 | 24.8 | 24.5 | 23.8 | 23.1 | 22.4 | 21.7 | 21.0 | 20.2 | 19.4 | 17.7 | 13.7 | 7.9 |
| 80 | ***** | 23.4 | 23.2 | 22.9 | 22.3 | 21.6 | 21.0 | 20.3 | 19.6 | 18.9 | 18.2 | 16.6 | 12.9 | 7.4 |
| 90 | ***** | 22.0 | 21.9 | 21.6 | 21.0 | 20.4 | 19.8 | 19.2 | 18.5 | 17.8 | 17.1 | 15.7 | 12.1 | 7.0 |
| 100 | ***** | 20.9 | 20.8 | 20.5 | 19.9 | 19.4 | 18.8 | 18.2 | 17.6 | 16.9 | 16.3 | 14.8 | 11.5 | 6.6 |
| 200 | ***** | ***** | 14.7 | 14.5 | 14.1 | 13.7 | 13.3 | 12.9 | 12.4 | 12.0 | 11.5 | 10.5 | 8.1 | 4.7 |
| 300 | ***** | ***** | 12.0 | 11.8 | 11.5 | 11.2 | 10.8 | 10.5 | 10.1 | 9.8 | 9.4 | 8.6 | 6.6 | 3.8 |
| 400 | ***** | ***** | ***** | 10.2 | 10.0 | 9.7 | 9.4 | 9.1 | 8.8 | 8.5 | 8.1 | 7.4 | 5.8 | 3.3 |
| 500 | ***** | ***** | ***** | 9.2 | 8.9 | 8.7 | 8.4 | 8.1 | 7.9 | 7.6 | 7.3 | 6.6 | 5.1 | 3.0 |
| 600 | ***** | ***** | ***** | 8.4 | 8.1 | 7.9 | 7.7 | 7.4 | 7.2 | 6.9 | 6.6 | 6.1 | 4.7 | 2.7 |
| 700 | ***** | ***** | ***** | 7.7 | 7.5 | 7.3 | 7.1 | 6.9 | 6.6 | 6.4 | 6.1 | 5.6 | 4.3 | 2.5 |
| 800 | ***** | ***** | ***** | 7.2 | 7.0 | 6.8 | 6.6 | 6.4 | 6.2 | 6.0 | 5.8 | 5.2 | 4.1 | 2.3 |
| 900 | ***** | ***** | ***** | ***** | 6.6 | 6.5 | 6.3 | 6.1 | 5.9 | 5.6 | 5.4 | 4.9 | 3.8 | 2.2 |
| 1000 | ***** | ***** | ***** | ***** | 6.3 | 6.1 | 5.9 | 5.8 | 5.6 | 5.4 | 5.1 | 4.7 | 3.6 | 2.1 |
| 1100 | ***** | ***** | ***** | ***** | 6.0 | 5.8 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.5 | 3.5 | 2.0 |
| 1200 | ***** | ***** | ***** | ***** | 5.8 | 5.6 | 5.4 | 5.2 | 5.1 | 4.9 | 4.7 | 4.3 | 3.3 | 1.9 |
| 1300 | ***** | ***** | ***** | ***** | 5.5 | 5.4 | 5.2 | 5.0 | 4.9 | 4.7 | 4.5 | 4.1 | 3.2 | 1.8 |
| 1400 | ***** | ***** | ***** | ***** | 5.3 | 5.2 | 5.0 | 4.9 | 4.7 | 4.5 | 4.3 | 4.0 | 3.1 | 1.8 |
| 1500 | ***** | ***** | ***** | ***** | 5.1 | 5.0 | 4.8 | 4.7 | 4.5 | 4.4 | 4.2 | 3.8 | 3.0 | 1.7 |
| 1600 | ***** | ***** | ***** | ***** | 5.0 | 4.8 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 | 3.7 | 2.9 | 1.7 |
| 1700 | ***** | ***** | ***** | ***** | ***** | 4.7 | 4.6 | 4.4 | 4.3 | 4.1 | 3.9 | 3.6 | 2.8 | 1.6 |
| 1800 | ***** | ***** | ***** | ***** | ***** | 4.6 | 4.4 | 4.3 | 4.1 | 4.0 | 3.8 | 3.5 | 2.7 | 1.6 |
| 1900 | ***** | ***** | ***** | ***** | ***** | 4.4 | 4.3 | 4.2 | 4.0 | 3.9 | 3.7 | 3.4 | 2.6 | 1.5 |
| 2000 | ***** | ***** | ***** | ***** | ***** | 4.3 | 4.2 | 4.1 | 3.9 | 3.8 | 3.6 | 3.3 | 2.6 | 1.5 |
| 2100 | ***** | ***** | ***** | ***** | ***** | 4.2 | 4.1 | 4.0 | 3.8 | 3.7 | 3.5 | 3.2 | 2.5 | 1.4 |
| 2200 | ***** | ***** | ***** | ***** | ***** | 4.1 | 4.0 | 3.9 | 3.7 | 3.6 | 3.5 | 3.2 | 2.5 | 1.4 |
| 2300 | ***** | ***** | ***** | ***** | ***** | 4.0 | 3.9 | 3.8 | 3.7 | 3.5 | 3.4 | 3.1 | 2.4 | 1.4 |
| 2400 | ***** | ***** | ***** | ***** | ***** | 4.0 | 3.8 | 3.7 | 3.6 | 3.5 | 3.3 | 3.0 | 2.3 | 1.4 |
| 2500 | ***** | ***** | ***** | ***** | ***** | 3.9 | 3.8 | 3.6 | 3.5 | 3.4 | 3.3 | 3.0 | 2.3 | 1.3 |
| 3000 | ***** | ***** | ***** | ***** | ***** | ***** | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.7 | 2.1 | 1.2 |
| 3500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 3.1 | 3.0 | 2.9 | 2.7 | 2.5 | 1.9 | 1.1 |
| 4000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.9 | 2.8 | 2.7 | 2.6 | 2.3 | 1.8 | 1.0 |
| 4500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.6 | 2.5 | 2.4 | 2.2 | 1.7 | 1.0 |
| 5000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.5 | 2.4 | 2.3 | 2.1 | 1.6 | 0.9 |
| 5500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.3 | 2.2 | 2.0 | 1.6 | 0.9 | 0.9 |
| 6000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.1 | 1.9 | 1.5 | 0.9 | 0.9 |
| 6500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.0 | 1.8 | 1.4 | 0.8 | 0.8 |
| 7000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.8 | 1.4 | 0.8 | 0.8 |
| 7500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.7 | 1.3 | 0.8 | 0.8 |
| 8000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.7 | 1.3 | 0.7 | 0.7 |
| 8500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.7 |
| 9000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.7 |
| 9500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.7 |
| 10000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.2 | 0.7 | 0.7 |
| 12500 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.6 | 0.6 |
| 15000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.5 | 0.5 |

National Tenant Satisfaction Survey - Survey documentation

National Tenant Satisfaction Survey (NTSS) 2001 - 2002

Approximate Sampling Variability Tables for Pacific (include Yukon)

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | ***** | 61.0 | 60.7 | 59.8 | 58.2 | 56.6 | 54.9 | 53.1 | 51.3 | 49.5 | 47.5 | 43.4 | 33.6 | 19.4 |
| 20 | ***** | 43.2 | 42.9 | 42.3 | 41.2 | 40.0 | 38.8 | 37.6 | 36.3 | 35.0 | 33.6 | 30.7 | 23.8 | 13.7 |
| 30 | ***** | 35.2 | 35.1 | 34.5 | 33.6 | 32.7 | 31.7 | 30.7 | 29.6 | 28.6 | 27.4 | 25.0 | 19.4 | 11.2 |
| 40 | ***** | 30.5 | 30.4 | 29.9 | 29.1 | 28.3 | 27.4 | 26.6 | 25.7 | 24.7 | 23.8 | 21.7 | 16.8 | 9.7 |
| 50 | ***** | 27.3 | 27.2 | 26.7 | 26.0 | 25.3 | 24.5 | 23.8 | 23.0 | 22.1 | 21.3 | 19.4 | 15.0 | 8.7 |
| 60 | ***** | 24.9 | 24.8 | 24.4 | 23.8 | 23.1 | 22.4 | 21.7 | 21.0 | 20.2 | 19.4 | 17.7 | 13.7 | 7.9 |
| 70 | ***** | 23.1 | 23.0 | 22.6 | 22.0 | 21.4 | 20.7 | 20.1 | 19.4 | 18.7 | 18.0 | 16.4 | 12.7 | 7.3 |
| 80 | ***** | 21.5 | 21.1 | 20.6 | 20.0 | 19.4 | 18.8 | 18.1 | 17.5 | 17.5 | 16.8 | 15.3 | 11.9 | 6.9 |
| 90 | ***** | 20.2 | 19.9 | 19.4 | 18.9 | 18.3 | 17.7 | 17.1 | 16.5 | 15.8 | 14.5 | 11.2 | 6.5 | 6.5 |
| 100 | ***** | 19.2 | 18.9 | 18.4 | 17.9 | 17.4 | 16.8 | 16.2 | 15.6 | 15.0 | 13.7 | 10.6 | 6.1 | 6.1 |
| 200 | ***** | 13.4 | 13.0 | 12.6 | 12.3 | 11.9 | 11.5 | 11.1 | 10.6 | 9.7 | 7.5 | 4.3 | 4.3 | 4.3 |
| 300 | ***** | 10.9 | 10.6 | 10.3 | 10.0 | 9.7 | 9.4 | 9.0 | 8.7 | 7.9 | 6.1 | 3.5 | 3.5 | 3.5 |
| 400 | ***** | 9.2 | 8.9 | 8.7 | 8.4 | 8.1 | 7.8 | 7.5 | 7.2 | 6.9 | 5.3 | 3.1 | 3.1 | 3.1 |
| 500 | ***** | 8.2 | 8.0 | 7.8 | 7.5 | 7.3 | 7.0 | 6.7 | 6.4 | 6.1 | 4.8 | 2.7 | 2.7 | 2.7 |
| 600 | ***** | 7.5 | 7.3 | 7.1 | 6.9 | 6.6 | 6.4 | 6.1 | 5.8 | 5.6 | 4.3 | 2.5 | 2.5 | 2.5 |
| 700 | ***** | 7.0 | 6.8 | 6.6 | 6.4 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 4.0 | 2.3 | 2.3 | 2.3 |
| 800 | ***** | 6.3 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.7 | 3.4 | 2.2 | 2.2 | 2.2 |
| 900 | ***** | 6.0 | 5.8 | 5.6 | 5.4 | 5.2 | 5.0 | 4.8 | 4.6 | 4.4 | 3.1 | 2.0 | 2.0 | 2.0 |
| 1000 | ***** | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.7 | 4.5 | 4.3 | 4.1 | 2.8 | 1.7 | 1.7 | 1.7 |
| 1100 | ***** | 5.4 | 5.2 | 5.1 | 4.9 | 4.7 | 4.5 | 4.3 | 4.1 | 3.9 | 2.6 | 1.5 | 1.5 | 1.5 |
| 1200 | ***** | 5.0 | 4.9 | 4.7 | 4.5 | 4.3 | 4.1 | 3.9 | 3.7 | 3.5 | 2.2 | 1.1 | 1.1 | 1.1 |
| 1300 | ***** | 4.8 | 4.7 | 4.5 | 4.3 | 4.1 | 3.9 | 3.7 | 3.5 | 3.3 | 2.0 | 0.9 | 0.9 | 0.9 |
| 1400 | ***** | 4.6 | 4.5 | 4.3 | 4.2 | 4.0 | 3.7 | 3.5 | 3.3 | 3.1 | 1.8 | 0.7 | 0.7 | 0.7 |
| 1500 | ***** | 4.5 | 4.3 | 4.2 | 4.0 | 3.9 | 3.5 | 3.2 | 3.0 | 2.8 | 1.5 | 0.4 | 0.4 | 0.4 |
| 1600 | ***** | 4.2 | 4.1 | 3.9 | 3.8 | 3.6 | 3.4 | 3.2 | 3.0 | 2.8 | 1.5 | 0.4 | 0.4 | 0.4 |
| 1700 | ***** | 4.1 | 3.9 | 3.8 | 3.6 | 3.4 | 3.2 | 3.0 | 2.8 | 2.6 | 1.3 | 0.2 | 0.2 | 0.2 |
| 1800 | ***** | 4.0 | 3.8 | 3.7 | 3.5 | 3.2 | 3.0 | 2.8 | 2.6 | 2.4 | 1.1 | 0.0 | 0.0 | 0.0 |
| 1900 | ***** | 3.9 | 3.7 | 3.6 | 3.4 | 3.1 | 2.9 | 2.7 | 2.5 | 2.3 | 1.0 | -0.1 | -0.1 | -0.1 |
| 2000 | ***** | 3.6 | 3.5 | 3.4 | 3.1 | 2.9 | 2.7 | 2.5 | 2.3 | 2.1 | 0.8 | -0.2 | -0.2 | -0.2 |
| 2100 | ***** | 3.5 | 3.4 | 3.3 | 3.0 | 2.8 | 2.6 | 2.4 | 2.2 | 2.0 | 0.7 | -0.3 | -0.3 | -0.3 |
| 2200 | ***** | 3.5 | 3.3 | 3.2 | 2.9 | 2.7 | 2.5 | 2.3 | 2.1 | 1.9 | 0.6 | -0.4 | -0.4 | -0.4 |
| 2300 | ***** | 3.4 | 3.3 | 3.1 | 2.9 | 2.7 | 2.5 | 2.3 | 2.1 | 1.9 | 0.5 | -0.5 | -0.5 | -0.5 |
| 2400 | ***** | 3.2 | 3.1 | 2.8 | 2.6 | 2.4 | 2.2 | 2.0 | 1.8 | 1.6 | 0.4 | -0.6 | -0.6 | -0.6 |
| 2500 | ***** | 3.1 | 3.0 | 2.7 | 2.5 | 2.3 | 2.1 | 1.9 | 1.7 | 1.5 | 0.3 | -0.7 | -0.7 | -0.7 |
| 3000 | ***** | 2.7 | 2.5 | 2.3 | 2.1 | 1.9 | 1.7 | 1.5 | 1.3 | 1.1 | 0.2 | -0.8 | -0.8 | -0.8 |
| 3500 | ***** | 2.3 | 2.2 | 2.0 | 1.8 | 1.6 | 1.4 | 1.2 | 1.0 | 0.8 | 0.1 | -0.9 | -0.9 | -0.9 |
| 4000 | ***** | 1.7 | 1.6 | 1.4 | 1.2 | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.0 | -1.0 | -1.0 | -1.0 |
| 4500 | ***** | 1.6 | 1.5 | 1.3 | 1.1 | 0.9 | 0.7 | 0.5 | 0.3 | 0.1 | 0.0 | -1.1 | -1.1 | -1.1 |
| 5000 | ***** | 1.5 | 1.4 | 1.2 | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.0 | 0.0 | -1.2 | -1.2 | -1.2 |
| 5500 | ***** | 1.4 | 1.3 | 1.1 | 0.9 | 0.7 | 0.5 | 0.3 | 0.1 | 0.0 | 0.0 | -1.3 | -1.3 | -1.3 |
| 6000 | ***** | 1.3 | 1.2 | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | -1.4 | -1.4 | -1.4 |
| 6500 | ***** | 1.2 | 1.1 | 0.9 | 0.7 | 0.5 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | -1.5 | -1.5 | -1.5 |
| 7000 | ***** | 1.1 | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | -1.6 | -1.6 | -1.6 |

National Tenant Satisfaction Survey - Survey documentation

National Tenant Satisfaction Survey (NTSS) 2001 - 2002

Approximate Sampling Variability Tables for Canada

| NUMERATOR OF PERCENTAGE | ESTIMATED PERCENTAGE | | | | | | | | | | | | | |
|-------------------------|----------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1% | 1.0% | 2.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 50.0% | 70.0% | 90.0% |
| 10 | 85.6 | 85.2 | 84.8 | 83.4 | 81.2 | 78.9 | 76.6 | 74.1 | 71.6 | 69.0 | 66.3 | 60.5 | 46.9 | 27.1 |
| 20 | 60.5 | 60.2 | 59.9 | 59.0 | 57.4 | 55.8 | 54.1 | 52.4 | 50.6 | 48.8 | 46.9 | 42.8 | 33.2 | 19.1 |
| 30 | 49.4 | 49.2 | 48.9 | 48.2 | 46.9 | 45.6 | 44.2 | 42.8 | 41.4 | 39.8 | 38.3 | 35.0 | 27.1 | 15.6 |
| 40 | 42.8 | 42.6 | 42.4 | 41.7 | 40.6 | 39.5 | 38.3 | 37.1 | 35.8 | 34.5 | 33.2 | 30.3 | 23.4 | 13.5 |
| 50 | 38.3 | 38.1 | 37.9 | 37.3 | 36.3 | 35.3 | 34.2 | 33.2 | 32.0 | 30.9 | 29.7 | 27.1 | 21.0 | 12.1 |
| 60 | 34.9 | 34.8 | 34.6 | 34.1 | 33.2 | 32.2 | 31.3 | 30.3 | 29.2 | 28.2 | 27.1 | 24.7 | 19.1 | 11.1 |
| 70 | 32.3 | 32.2 | 32.0 | 31.5 | 30.7 | 29.8 | 28.9 | 28.0 | 27.1 | 26.1 | 25.1 | 22.9 | 17.7 | 10.2 |
| 80 | 30.3 | 30.1 | 30.0 | 29.5 | 28.7 | 27.9 | 27.1 | 26.2 | 25.3 | 24.4 | 23.4 | 21.4 | 16.6 | 9.6 |
| 90 | 28.5 | 28.4 | 28.3 | 27.8 | 27.1 | 26.3 | 25.5 | 24.7 | 23.9 | 23.0 | 22.1 | 20.2 | 15.6 | 9.0 |
| 100 | 27.1 | 26.9 | 26.8 | 26.4 | 25.7 | 25.0 | 24.2 | 23.4 | 22.7 | 21.8 | 21.0 | 19.1 | 14.8 | 8.6 |
| 200 | ***** | 19.0 | 19.0 | 18.7 | 18.2 | 17.6 | 17.1 | 16.6 | 16.0 | 15.4 | 14.8 | 13.5 | 10.5 | 6.1 |
| 300 | ***** | 15.6 | 15.5 | 15.2 | 14.8 | 14.4 | 14.0 | 13.5 | 13.1 | 12.6 | 12.1 | 11.1 | 8.6 | 4.9 |
| 400 | ***** | 13.5 | 13.4 | 13.2 | 12.8 | 12.5 | 12.1 | 11.7 | 11.3 | 10.9 | 10.5 | 9.6 | 7.4 | 4.3 |
| 500 | ***** | 12.0 | 12.0 | 11.8 | 11.5 | 11.2 | 10.8 | 10.5 | 10.1 | 9.8 | 9.4 | 8.6 | 6.6 | 3.8 |
| 600 | ***** | 11.0 | 10.9 | 10.8 | 10.5 | 10.2 | 9.9 | 9.6 | 9.2 | 8.9 | 8.6 | 7.8 | 6.1 | 3.5 |
| 700 | ***** | 10.2 | 10.1 | 10.0 | 9.7 | 9.4 | 9.2 | 8.9 | 8.6 | 8.2 | 7.9 | 7.2 | 5.6 | 3.2 |
| 800 | ***** | 9.5 | 9.5 | 9.3 | 9.1 | 8.8 | 8.6 | 8.3 | 8.0 | 7.7 | 7.4 | 6.8 | 5.2 | 3.0 |
| 900 | ***** | 9.0 | 8.9 | 8.8 | 8.6 | 8.3 | 8.1 | 7.8 | 7.6 | 7.3 | 7.0 | 6.4 | 4.9 | 2.9 |
| 1000 | ***** | 8.5 | 8.5 | 8.3 | 8.1 | 7.9 | 7.7 | 7.4 | 7.2 | 6.9 | 6.6 | 6.1 | 4.7 | 2.7 |
| 1100 | ***** | 8.1 | 8.1 | 8.0 | 7.7 | 7.5 | 7.3 | 7.1 | 6.8 | 6.6 | 6.3 | 5.8 | 4.5 | 2.6 |
| 1200 | ***** | 7.7 | 7.6 | 7.4 | 7.2 | 7.0 | 6.8 | 6.5 | 6.3 | 6.1 | 5.8 | 5.3 | 4.1 | 2.5 |
| 1300 | ***** | 7.4 | 7.3 | 7.1 | 6.9 | 6.7 | 6.5 | 6.3 | 6.1 | 5.8 | 5.6 | 5.1 | 4.0 | 2.4 |
| 1400 | ***** | 7.2 | 7.1 | 6.9 | 6.7 | 6.5 | 6.3 | 6.1 | 5.8 | 5.6 | 5.4 | 4.9 | 3.8 | 2.2 |
| 1500 | ***** | 6.9 | 6.8 | 6.6 | 6.4 | 6.3 | 6.1 | 5.8 | 5.6 | 5.4 | 5.2 | 4.8 | 3.7 | 2.1 |
| 1600 | ***** | 6.7 | 6.6 | 6.4 | 6.2 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.6 | 3.6 | 2.1 |
| 1700 | ***** | 6.5 | 6.4 | 6.2 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.4 | 3.4 | 2.0 |
| 1800 | ***** | 6.3 | 6.2 | 6.1 | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.7 | 4.2 | 3.2 | 1.9 |
| 1900 | ***** | 6.1 | 6.1 | 5.9 | 5.7 | 5.6 | 5.4 | 5.2 | 5.1 | 4.9 | 4.7 | 4.3 | 3.3 | 1.9 |
| 2000 | ***** | 6.0 | 5.9 | 5.7 | 5.6 | 5.4 | 5.2 | 5.1 | 4.9 | 4.7 | 4.5 | 4.1 | 3.2 | 1.8 |
| 2100 | ***** | 5.8 | 5.8 | 5.6 | 5.4 | 5.3 | 5.1 | 4.9 | 4.8 | 4.6 | 4.5 | 4.1 | 3.2 | 1.8 |
| 2200 | ***** | 5.7 | 5.6 | 5.5 | 5.3 | 5.2 | 5.0 | 4.8 | 4.7 | 4.5 | 4.4 | 4.0 | 3.1 | 1.8 |
| 2300 | ***** | 5.6 | 5.5 | 5.4 | 5.2 | 5.0 | 4.9 | 4.7 | 4.6 | 4.4 | 4.3 | 3.9 | 3.0 | 1.7 |
| 2400 | ***** | 5.4 | 5.2 | 5.1 | 4.9 | 4.8 | 4.6 | 4.5 | 4.4 | 4.2 | 4.1 | 3.7 | 2.8 | 1.7 |
| 2500 | ***** | 5.3 | 5.1 | 5.0 | 4.8 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 | 3.9 | 3.5 | 2.6 | 1.6 |
| 3000 | ***** | 4.8 | 4.7 | 4.6 | 4.4 | 4.3 | 4.1 | 4.0 | 3.8 | 3.7 | 3.5 | 3.2 | 2.5 | 1.4 |
| 3500 | ***** | 4.5 | 4.3 | 4.2 | 4.1 | 4.0 | 3.8 | 3.7 | 3.5 | 3.4 | 3.3 | 3.0 | 2.3 | 1.4 |
| 4000 | ***** | 4.2 | 4.1 | 3.9 | 3.8 | 3.7 | 3.6 | 3.5 | 3.4 | 3.3 | 3.1 | 2.9 | 2.2 | 1.3 |
| 4500 | ***** | 3.9 | 3.8 | 3.7 | 3.6 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.7 | 2.1 | 1.2 |
| 5000 | ***** | 3.7 | 3.6 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.6 | 2.0 | 1.2 |
| 5500 | ***** | 3.6 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.5 | 1.9 | 1.1 |
| 6000 | ***** | 3.3 | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.2 | 1.7 | 1.0 |
| 6500 | ***** | 3.2 | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.1 | 1.6 | 0.9 |
| 7000 | ***** | 3.1 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.0 | 1.5 | 0.9 |
| 7500 | ***** | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 1.9 | 1.4 | 0.8 |
| 8000 | ***** | 2.9 | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.8 | 1.3 | 0.8 |
| 8500 | ***** | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 1.7 | 1.3 | 0.8 |
| 9000 | ***** | 2.7 | 2.6 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 1.7 | 1.3 | 0.8 |
| 9500 | ***** | 2.6 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 1.8 | 1.6 | 1.2 | 0.7 |
| 10000 | ***** | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 1.8 | 1.7 | 1.5 | 1.1 | 0.7 |
| 12500 | ***** | 2.2 | 2.2 | 2.1 | 2.0 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.2 | 0.9 | 0.5 |
| 15000 | ***** | 2.0 | 2.0 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.3 | 1.2 | 1.0 | 0.7 | 0.4 |
| 20000 | ***** | 1.7 | 1.7 | 1.6 | 1.5 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 | 0.7 | 0.5 | 0.3 |
| 25000 | ***** | 1.5 | 1.4 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.4 | 0.3 |
| 30000 | ***** | 1.3 | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 |
| 35000 | ***** | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 |
| 40000 | ***** | 1.1 | 1.0 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 |
| 45000 | ***** | 1.0 | 0.9 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| 50000 | ***** | 0.9 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| 55000 | ***** | 0.8 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 60000 | ***** | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 70000 | ***** | 0.6 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 80000 | ***** | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 90000 | ***** | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 1E5 | ***** | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

11.0 Questionnaire

The NTSS questionnaire was used in December 2001 to March 2002 to collect the information for the survey.

National Tenant Satisfaction Survey

Section: Survey Introduction (SI)

SI_STR TIME CHECK

SI_I01 **We are doing a survey of Federal Government Tenants concerning the quality of services in buildings under the responsibility of Public Works and Government Services Canada (PWGSC).**

SI_I02 **This information will help PWGSC to better understand your needs and use the information to improve the services in your building. Your opinion is very important. Your answers will be kept confidential under the Statistics Act and will be used only for statistical purposes.**

SI_I03 **While participation is voluntary, your assistance is essential if the results of the survey are to be accurate. Under the Statistics Act your answers are strictly confidential. (Registration#: STC/SSD-040-75221).**

SI_Q04 **How many people are using ^TELNUM ^TELEXT?**

__(2 spaces) [Min: 1 Max: 99]

Note: ^TELNUM and ^TELEXT come from Database. If ^TELEXT is blank then show ^TELNUM only.

SI_Q05 **Is the name of your building ^NAMEBLDG ?**

- 1 Yes
- 3 No (Go to SI_Q05S)
DK, RF (Go to CAI_SO)

Default: (Go to SI_Q06)

Note: ^NAMEBLDG comes from Database. Display only first 80 alpha-numeric characters. If blank then go to SI_Q05S.

SI_Q05S **(What is the name of your building?)**

_____ (80 spaces)

SI_Q06 **Is the address of your building ^BLDGADD?**

- 1 Yes
- 2 No (Go to SI_N06)
DK, RF (Go to CAI_SO)

Default: (Go to SI_Q07)

Note: ^BLDGADD comes from database. Display only 5 characters for civic number, 50 characters for street name, 30 characters for city name and 2 characters for province.

SI_N06 **INTERVIEWER:** Enter address
NUM Enter the civic number
STREET Enter the street name
CITY Enter the city name
PROV Enter the province

Note: Accept only 5 characters for civic number, 50 characters for street name, 30 characters for city name and 2 characters for province.

SI_Q07 **Is the name of your department ^NAMEDEPT?**

- 1 Yes
- 3 No (Go to SI_Q07S)
DK, RF (Go to CAI_SO)

Default: (Go to SI_STP)

Note: ^NAMEDEPT comes from Database. Display only first 80 alpha-numeric characters
If blank then go to SI_Q07S.

SI_Q07S **(What is the name of your department?)**

_____ (80 spaces)

SI_STP TIME CHECK

Section: Workspace (WS)

WS_STR TIME CHECK

WS_SEX INTERVIEWER: Enter gender.

- 1 Male
- 2 Female

WS_Q01 **Which of the following best describes your workspace?**

INTERVIEWER: Read categories to respondent.

- 01 A single office in open concept (cubicle)
- 02 A shared office in open concept (shared cubicle)
- 03 A closed office, not shared
- 04 A closed office shared
- 05 A warehouse
- 06 A laboratory
- 07 Other - Specify (Go to WS_Q01S)

Default: (Go to WS_Q02)

Open concept is personal office space without walls from floor to ceiling.

WS_Q01S **(Description of workspace)**

_____ (80 spaces)

WS_Q02 **How many years have you worked in this building?**

- 1 **Less than 1 year**
- 2 **1 to 2 years**
- 3 **3 to 5 years**
- 4 **More than 5 years**

WS_Q03 How long have you been in your current office?

- 1 Less than 1 year
- 2 1 to 2 years
- 3 3 to 5 years
- 4 More than 5 years

WS_Q04 Would you like to see any improvements made to your physical work environment and related services in your building?

- 1 Yes (Go to WS_Q05)
- 3 No (Go to WS_STP)

WS_Q05 Which ones?

INTERVIEWER: Mark all that apply.

- 01 Natural lighting
- 02 Task lighting
- 03 Overhead lighting
- 04 Temperature
- 05 Air circulation
- 06 Parking availability
- 07 Outside lighting
- 08 Building security services
- 09 Snow removal
- 10 Office cleaning services
- 11 Washroom cleaning services
- 12 Cleaning services for hallways, elevators and common areas
- 13 Reliability of elevator
- 14 Barrier free accessibility to the building
- 15 Building system noise levels
- 16 Other - Specify(Go to WS_Q05S)

Default: (Go to WS_STP)

WS_Q05S (Improvements to physical work environment to be done)

_____ (80 spaces)

WS_STP TIME CHECK

Section: Satisfactory Service (SS)

SS_STR TIME CHECK

SS_I01 In the following section, you will be asked to rate specific services in terms of their importance to you personally and your level of satisfaction regarding these services. If some services do not apply to you, please answer 'Service does not apply to me'.

SS_Q01 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of natural lighting (for you)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q02 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the natural lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q03 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of task lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q04 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the task lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q05 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of overhead lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q06 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the overhead lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q07 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of temperature (too hot too cold)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q08 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the temperature (too hot too cold)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q09 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of air circulation (air movement)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q10 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the air circulation (air movement)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q11 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of parking availability?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q12 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the parking availability?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q13 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of outside lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q14 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the outside lighting?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q15 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of building security services (after hours access & security guards)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q16 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the building security services (after hours access & security guards)?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q17 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of snow removal?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q18 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the snow removal?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q19 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of office cleaning services?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q20 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the office cleaning services?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q21 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of washroom cleaning services?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q22 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the washroom cleaning services?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q23 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of cleaning services for hallways, elevators and common areas?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q24 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the cleaning services for hallways, elevators and common areas?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q25 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of reliability of elevators?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q26 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the reliability of elevators?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q27 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of barrier free accessibility to the building?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q28 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the barrier free accessibility to the building?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q29 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of building system noise levels?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_Q30 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the building system noise levels?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SS_STP TIME CHECK

Section: Service Availability (SA)

SA_STR TIME CHECK

SA_I01 Using the same scales, we would like to know the importance of having specific services available in your building or in the surrounding areas and your level of satisfaction regarding their availability.

SA_Q01 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of having access to food services?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q02 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with having access to food services?

- 01 1
- 02 2
- 03 3

| | |
|--------|---|
| 04 | 4 |
| 05 | 5 |
| 66 | Does not apply to me |
| SA_Q03 | On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate: ... the importance of access to public transportation? |
| 01 | 1 |
| 02 | 2 |
| 03 | 3 |
| 04 | 4 |
| 05 | 5 |
| 66 | Does not apply to me |
| SA_Q04 | On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate: ... your level of satisfaction with the access to public transportation? |
| 01 | 1 |
| 02 | 2 |
| 03 | 3 |
| 04 | 4 |
| 05 | 5 |
| 66 | Does not apply to me |
| SA_Q05 | On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate: ... the importance of access to daycare? |
| 01 | 1 |
| 02 | 2 |
| 03 | 3 |
| 04 | 4 |
| 05 | 5 |
| 66 | Does not apply to me |
| SA_Q06 | On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate: ... your level of satisfaction with the access to daycare? |
| 01 | 1 |
| 02 | 2 |
| 03 | 3 |
| 04 | 4 |
| 05 | 5 |
| 66 | Does not apply to me |

SA_Q07 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of access to fitness facilities?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q08 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the access to fitness facilities?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q09 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of access to showers?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q010 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the access to showers?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q011 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of access to shopping areas?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q012 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the access to shopping areas?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q013 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of access to bank machines?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q014 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the access to bank machines?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q015 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... the importance of access to bike racks?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_Q016 On a scale of 1 to 5, where 1 is lowest importance or satisfaction and 5 is highest importance or satisfaction, how would you rate:

... your level of satisfaction with the access to bike racks?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

SA_STP TIME CHECK

Section: Building Services (BSER)

BSER_STR TIME CHECK

Note: If WS_Q02=<1> or WS_Q02=DK or WS_Q02=RF then go to BC_Q05.
Else go to BSER_Q01.

BSER_Q01 Compared to 1 year ago, are there any services which have improved?

- 1 Yes
- 3 No (Go to BSER_Q03)
- DK, RF (Go to BSER_Q03)

BSER_Q02 Which ones?

INTERVIEWER: Mark all that apply.

- 01 Natural lighting
- 02 Task lighting
- 03 Overhead lighting
- 04 Temperature
- 05 Air circulation
- 06 Parking availability
- 07 Outside lighting
- 08 Building security services
- 09 Snow removal
- 10 Office cleaning services
- 11 Washroom cleaning services

- 12 Cleaning services for hallways, elevators and common areas
- 13 Reliability of elevator
- 14 Barrier free accessibility to the building
- 15 Building system noise levels
- 16 Other - Specify(Go to BSER_Q02S)

Default: (Go to BSER_Q03)

BSER_Q02S (Any other services which have improved)

_____ (80 spaces)

BSER_Q03 Compared to 1 year ago, are there any services which have deteriorated?

- 1 Yes
- 3 No (Go to BSER_Q05)
- DK, RF (Go to BSER_Q05)

BSER_Q04 Which ones?

INTERVIEWER: Mark all that apply.

- 01 Natural lighting
- 02 Task lighting
- 03 Overhead lighting
- 04 Temperature
- 05 Air circulation
- 06 Parking availability
- 07 Outside lighting
- 08 Building security services
- 09 Snow removal
- 10 Office cleaning services
- 11 Washroom cleaning services
- 12 Cleaning services for hallways, elevators and common areas
- 13 Reliability of elevator
- 14 Barrier free accessibility to the building
- 15 Building system noise levels
- 16 Other - Specify(Go to BSER_Q04S)

Default: (Go to BSER_Q05)

BSER_Q04S (Any other services which have deteriorated)

_____ (80 spaces)

BSER_Q05 Overall, how satisfied are you with the services in your building?

INTERVIEWER: Read categories to respondent.

- 1 Very satisfied
- 2 Somewhat satisfied
- 3 Somewhat dissatisfied
- 4 Very dissatisfied

BSER_Q06 To whom would you report problems or concerns in your building?

INTERVIEWER: Read categories to respondent.

- 1 Administration area (Go to BSER_Q10)
- 2 Departmental contact or supervisor (Go to BSER_Q10)
- 3 1-800 number - PWGSC National Service Call Center
- 4 Property Manager
- 5 Other - Specify (Go to BSER_Q06S)

Default: (Go to BSER_Q07)

BSER_Q06S (Report problems or concerns in your building to whom)

_____ (80 spaces)

BSER_Q07 Have you ever reported a problem or concern to one of these people?

- 1 Yes
- 3 No (Go to BSER_Q10)
- DK, RF (Go to BSER_Q10)

BSER_Q08 How often were the problems or concerns resolved or answered to your satisfaction?

INTERVIEWER: Read categories to respondent.

- 1 Always (Go to BSER_Q10)
- 2 Sometimes
- 3 Never
- DK, RF (Go to BSER_Q10)

BSER_Q09 Why were you not completely satisfied with the response?

INTERVIEWER: Mark all that apply.

- 01 Slow response to concern/complaints
- 02 Rude/unpleasant staff
- 03 Poor/bad service
- 04 Problem still exists
- 05 Nobody came to solve the problem
- 06 Poor communication
- 07 Other - Specify (Go to BSER_Q09S)

Default: (Go to BSER_Q10)

BSER_Q09S (Other reasons why not completely satisfied with response)

_____ (80 spaces)

BSER_Q10 Did you ever have a problem that you did not report?

- 1 Yes
- 3 No (Go to BSER_Q12)
- DK, RF (Go to BSER_Q12)

BSER_Q11 Why did you not report this issue (to anyone)?

INTERVIEWER: Mark all that apply.

- 01 Thought someone else would report
- 02 Don't know who to report to
- 03 Thought nothing would be done anyway
- 04 Wasn't important to me
- 05 Embarrassed
- 06 Rude/unpleasant staff
- 07 Worried about the repercussions
- 08 Other - Specify(Go to BSER_Q11S)

Default: (Go to BSER_Q12)

BSER_Q11S (Other reasons why you did not inform anyone on this issue)

_____ (80 spaces)

BSER_Q12 Do you deliver Real Property or Facilities Management services to employees of your department?

- 1 Yes
- 3 No (Go to SA_STP)
- DK, RF (Go to SA_STP)

BSER_Q13 Overall, how satisfied are you with the ability of your building's property manager/managers team to support your business and operational needs?

INTERVIEWER: Read categories to respondent.

- 1 Very satisfied
- 2 Somewhat satisfied
- 3 Somewhat dissatisfied
- 4 Very dissatisfied

BSER_Q14 On a scale of 1 to 5, where 1 is lowest and 5 is highest, please rate your satisfaction with the following aspects from the property management team:

... your level of satisfaction with their responsiveness?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

BSER_Q15 On a scale of 1 to 5, where 1 is lowest and 5 is highest, please rate your satisfaction with the following aspects from the property management team:

... your level of satisfaction with their knowledge?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

BSER_Q16 On a scale of 1 to 5, where 1 is lowest and 5 is highest, please rate your satisfaction with the following aspects from the property management team:

... your level of satisfaction with their courteousness?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

BSER_Q17 On a scale of 1 to 5, where 1 is lowest and 5 is highest, please rate your satisfaction with the following aspects from the property management team:

... your level of satisfaction with their communication skills?

- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 66 Does not apply to me

BSER_Q18 Overall, how satisfied are you with the level of Project Management services received from PWGSC's team?

INTERVIEWER: Read categories to respondent.

- 1** Very satisfied
- 2** Somewhat satisfied
- 3** Somewhat dissatisfied
- 4** Very dissatisfied

BSER_STP TIME CHECK

CAI_SO END OF INTERVIEW