



Microdata User Guide

ONTARIO CHILD HEALTH STUDY

(SECOND FOLLOW-UP)

2000



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Table of Contents

1.0	Introduction	5
2.0	Background	7
3.0	Objectives	9
4.0	Concepts and Definitions	11
5.0	Survey Methodology	13
5.1	Population Coverage	13
5.2	Sample Design	13
5.3	Sample Size	13
5.4	Second Follow-up of the Ontario Child Health Study, 2000	13
6.0	Data Collection	15
6.1	Non-response	15
7.0	Data Processing	17
7.1	Data Capture	17
7.2	Editing	17
7.3	Coding of Open-ended Questions	17
7.4	Imputation	17
7.5	Creation of Derived Variables	18
7.6	Weighting	18
8.0	Data Quality	19
8.1	Response Rates	19
8.2	Survey Errors	19
8.3	Measurement of Sampling Error	19
9.0	Guidelines for Tabulation, Analysis and Release	21
9.1	Rounding Guidelines	21
9.2	Sample Weighting Guidelines for Tabulation	21
9.3	Guidelines for Statistical Analysis	22
9.4	Coefficient of Variation Release Guidelines	23
10.0	Approximate Sampling Variability Tables	25
10.1	Coefficient of Variation Table	26

1.0 Introduction

The Ontario Child Health Study was conducted by Statistics Canada between November 2000 and November 2001 with the cooperation and support of McMaster University. This manual has been produced to facilitate the manipulation of the microdata file of the survey results.

Any questions about the data set or its use should be directed to:

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2.0 Background

The Ontario Child Health Study (OCHS) is a long-term survey designed to evaluate the impact of early childhood experiences and development on later health, quality of life and functioning.

Statistics Canada, in conjunction with McMaster University in Hamilton, Ontario, originally collected information on a representative group of 3,294 Ontario children living in 1,869 families. This study, funded by the government of Ontario, was one of the first large-scale assessments of the physical and emotional health of Ontario's children. The first survey was conducted in 1983 and the children selected were between 4 and 16 years of age.

The main purpose of the study was to look at the overall health of the children in Ontario, to see how their health needs were being met and to identify factors that helped or hindered their development. By sponsoring this province-wide survey as part of their research program, McMaster University was able to provide the Ministry of Community and Social Services with statistical information, which indicated:

- that more children than expected had behavioural or emotional problems;
- that many children with problems were not accessing services;
- that children with difficulties often had a range of problems, requiring different kinds of help from different services;
- which factors (for example, participation and activities) contributed to healthy development.

In turn, this information was key in:

- raising the profile of the needs of children;
- adding motivation for government initiatives directed towards children;
- triggering changes in service delivery and fostering more co-operation and collaboration between those offering help to children and their families.

A follow-up study with these same children was conducted in 1987 when these respondents were between 8 and 20 years of age. The study provided important information about which health aspects of these children had changed or remained the same over the previous four years.

The data from the first two waves of collection have been used as building blocks for many studies and organizations. Studies based on OCHS data have documented the relationship between a child's physical, social and mental health problems, characteristics of families that place children at risk, as well as inadequacies in the availability and targeting of health and social welfare services. The data have also influenced many policy analysts, decision makers, and health care practitioners, while playing a vital role in changing social, health and educational policy in Ontario.

Beginning in November 2000, Statistics Canada conducted a second follow-up survey with the original children in this study. This survey looked at the possible influences of early experiences on important life transitions, such as joining the workforce, entering into a relationship with someone or becoming a parent. All the original respondents, now between the ages of 21 and 33 years, were eligible to participate in this collection.

With three waves of data spanning some 17 years, longitudinal data from the OCHS will be an important tool for researching and discovering developmental changes that occur over time. This type of information will expand our knowledge concerning the long-term influences of early risk factors and the processes that lead to successful or unsuccessful transitions into adulthood. This, in turn, will enhance the capacity of the various partners in society to develop effective strategies, policies and programs that assist in the healthy development of our children and youth.

3.0 Objectives

The specific objectives of the second follow-up to the Ontario Child Health Study are two-fold:

- to look at the possible influence of early childhood/adolescent experiences on early adult life, especially with respect to important transitions in life, such as becoming a member of the workforce, entering into a relationship with someone or becoming a parent;
- to provide, along with the previous information collected, useful information for addressing many public health and development questions of interest to researchers and health scientists.

4.0 Concepts and Definitions

This chapter outlines concepts and definitions of interest to the users. Users are referred to the Questionnaires folder for a copy of the actual survey forms used.

Longitudinal Respondent

A longitudinal respondent is a person who, as a child, was selected for the Ontario Child Health Study (OCHS) in 1983. This person was traced and interviewed for the second follow-up study.

Dwelling

A dwelling is a set of living quarters in which a person or group of persons resides or could reside.

Household

A household consists of a person or group of persons occupying one dwelling. It usually consists of a family group, however, it may comprise two or more families sharing a dwelling, a group of unrelated persons or one person living alone.

Selected Child

For the OCHS second follow-up, the youngest child in the household, who is the child of the longitudinal respondent or for whom the longitudinal respondent is a parent-figure, was designated as the "selected child". The selection process was as follows:

- choose the youngest "birth" child of the longitudinal respondent;
- if not applicable, then choose the youngest "adopted" child of the longitudinal respondent;
- if not applicable, then choose the youngest "step-child" of the longitudinal respondent;
- if not applicable, then choose the youngest "foster-child" of the longitudinal respondent.

If the selected child was between 3 and 71 months of age, that selected child was eligible for the OCHS 5, Ages and Stages Questionnaire. If the selected child was outside the 3 to 71 months of age range then he/she was simply the child referred to in the "parenting" questions of the OCHS questionnaires.

Industry and Occupation

The labour force questions in the OCHS questionnaires provide information about the occupation and industry attachment of employed and unemployed persons, and of persons not in the labour force who have held a job in the past. To facilitate comparisons with data collected in 1983 and 1987, the industry and occupation descriptions have been coded to the 1980 Standard Occupational Classification (SOC) and the 1980 Standard Industrial Classification (SIC). In addition, the descriptions were also coded to the newer North American Industry Classification System (NAICS) and 1991 SOC codes.

Major Field of Study

Respondents and spouses/partners were asked to identify their major field of study if they attended college or university. These write-in descriptions were coded to the appropriate University Student Information System (USIS) code for university programs or Trade/Vocational/Community College Student Information System (CCSIS) code for trade/vocational or community college programs.

5.0 Survey Methodology

The sample for Ontario Child Health Study (OCHS) was selected originally for the 1983 collection. The information below describes the coverage and methodology for that original sample. For the 1987 and 2000 follow-up studies, the original longitudinal respondents were simply located at their current address and interviewed.

5.1 Population Coverage

The target population for the original 1983 OCHS included all children born from January 1, 1966 through January 1, 1979, whose usual place of residence was in a household located in the province of Ontario. The survey excluded children living on Indian reserves, those in collective dwellings such as institutions, and those living in dwellings constructed after June 1, 1981 (Census day); this excluded population represented 3.3% of the target population.

5.2 Sample Design

The sample for the 1983 OCHS was selected from a frame consisting of all dwellings identified in the 1981 Census of Population. A stratified, clustered, random sample of dwellings was selected from this frame. The sample was stratified into four health regions; each region was then divided into three strata based on the population density (large urban, small urban or rural). Further details about the sample design can be found in the journal article "Ontario Child Health Study – Methodology" by Boyle et al., in *Arch Gen Psychiatry* – Volume 44, September 1987.

5.3 Sample Size

A total of 2,623 households was selected for the 1983 OCHS. Of these, 78.2% were found to be eligible for the survey (i.e. a child in the target population lived in the household); 91.1% of these households agreed to participate in the study. All eligible children living in a responding household were selected as longitudinal respondents for the study. This resulted in responses from 3,294 Ontario children living in 1,869 households.

5.4 Second Follow-up of the Ontario Child Health Study, 2000

For the follow-up study in 2000, Statistics Canada attempted to locate the longitudinal respondents at their current location. Tracing was done using the addresses collected in 1983 and 1987, contacting the parents or other relatives (based on information given in previous collections), and using other methods (administrative information, Internet, neighbours, etc.). In total, 2,896 of the 3,294 longitudinal respondents were located.

6.0 Data Collection

Data collection for the Ontario Child Health Study (OCHS) was carried out between November 2000 and November 2001 by a staff of trained Statistics Canada interviewers.

Data collection was done using a combination of telephone and personal interviews. There were two phases to the interview. Phase one consisted of a brief telephone interview to confirm that the correct respondent had been found, outline the study objectives, and administer the OCHS 1 - Demographic Questionnaire with relationship grid. The spouse/partner and the selected child of the longitudinal respondent were identified and the longitudinal respondent was informed of the mail-out of the OCHS 5 questionnaire, if applicable (i.e. if the selected child was between 3 and 71 months of age). Phase two consisted of a personal interview to collect the OCHS 2 - Respondent Questionnaire, OCHS 3 - Respondent Self-complete Questionnaire, OCHS 4 - Partner Self-complete Questionnaire (if the respondent had a spouse/partner), and OCHS 5 - Ages and Stages Questionnaire (if the selected child was between the age of 3 and 71 months). For longitudinal respondents who were living outside Canada, a telephone interview was conducted using the OCHS 6 – Out-migrant Questionnaire (a short version of the OCHS 2 questionnaire).

The interview took approximately 1½ hours, depending on whether or not the respondent had a partner and whether or not the selected child was eligible for the OCHS 5 questionnaire.

In order to minimize non-response, the decision was taken that if a longitudinal respondent was refusing to do the full survey, but would be willing to do a shorter interview, the OCHS 6 questionnaire was administered in these circumstances.

6.1 Non-response

When respondents were contacted for the survey, the Statistics Canada interviewers first verified that they were the longitudinal person, then asked them to participate in the study. Non-response to the survey came from several sources: inability to trace the longitudinal respondent, inability to contact the longitudinal respondent once traced, or refusal to participate. Since the study is longitudinal, people who have died or become institutionalized since 1983 are still considered as part of the target population for the survey, and therefore are treated as respondents (i.e. they are assigned a survey weight). Four of the longitudinal respondents from the 1983 survey were treated as out-of-scope since they were found to have birthdates that were not in the correct range to be eligible for the original target population (i.e. they were incorrectly interviewed in 1983 due to an error in the recording of their date of birth). The following table gives a breakdown of the sample, by response or non-response status.

Sample by Response Type

Response Type	Number of Respondents	Response Rate (%)
Response – complete interview	2,355	71.5
Institutionalized	3	0.1
Deceased	26	0.8
Total Response	2,384	72.4
Unable to trace	398	12.1
Traced, non-respondent	473	14.4
Non-sharer (treated as non-response)	35	1.1
Total Non-response	906	27.5
Out-of-scope (error in birth date at 1983 collection)	4	0.1
Total Sample	3,294	100.0

7.0 Data Processing

This chapter presents a brief summary of the processing steps involved in producing the master/share microdata file for the Ontario Child Health Study (OCHS) 2000.

7.1 Data Capture

Capture of survey data was accomplished using the data capture facilities located at Statistics Canada's head office. During this process any document containing at least one interviewer-completed item was captured. All OCHS questionnaires were data captured, and the electronic version of each of the questionnaire data files was sent to Special Surveys Division for further data processing.

7.2 Editing

The first stage of survey processing undertaken at head office was the replacement of any "out-of-range" values on the data file with blanks. This process was designed to make further editing easier.

The first type of error treated was errors in questionnaire flow, where questions which did not apply to the respondent (and should therefore not have been answered) were found to contain answers. In this case a computer edit automatically eliminated superfluous data by following the flow of the questionnaire implied by answers to previous, and in some cases, subsequent questions.

The second type of error treated involved 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 Open-ended Questions

A few data items on the questionnaire were recorded by interviewers in an open-ended format. Answers to questions relating to industry, occupation and major field of study were coded to standard code sets using a combination of automated and manual coding operations. See Chapter 4.0 (Concepts and Definitions) for additional information.

7.4 Imputation

Imputation is the process that supplies valid values for those variables that have been identified for a change either because of invalid information or because of missing information. The new values are supplied in such a way as to preserve the underlying structure of the data and to ensure that the resulting records will pass all required edits. In other words, the objective is not to reproduce the true microdata values, but rather to establish internally consistent data records that yield good aggregate estimates.

We can distinguish between three types of non-response. Complete non-response is when the respondent does not provide the minimum set of questions. These records are dropped and accounted for in the weighting process. Item non-response is when the respondent does not provide an answer to one question, but goes on to the next question. These are handled using the "not stated" code. Finally, partial non-response is when the respondent provides the minimum set of questions but does not finish the interview. These records are handled in the same manner as item non-response, by assigning a "not stated" code to the missing data items.

No imputation of data values was done for the OCHS.

7.5 Creation of Derived Variables

A number of data items on the master data file have been derived by combining items on the questionnaire in order to facilitate data analysis. Some examples are the family composition and household composition variables on the OCHSLR (Longitudinal Respondent) file.

7.6 Weighting

The principle behind estimation in a probability sample such as the OCHS is that each person in the sample "represents", besides himself or herself, several other persons not in the sample. For example, in a simple random 2% sample of the population, each person in the sample represents 50 persons in the population.

The weighting phase is a step which calculates, for each record, what this number is. This weight appears on the microdata file, and **must** be used to derive meaningful estimates from the survey. For example, if the number of individuals who completed university is to be estimated, it is done by selecting the records referring to those individuals in the sample with that characteristic and summing the weights entered on those records.

For the OCHS, each respondent represents people who were in the target population for the original 1983 survey – that is, children aged 4 to 16 living in Ontario in 1983. A base weight was calculated for these respondents for the 1983 data file. For the 2000 data file, the 1983 base weight was used as a starting point. Adjustments were then made for non-response (traced, but did not respond) and for non-traced (unable to locate the person) based on characteristics available from the 1983 survey data. Finally, the weights were benchmarked to six age-sex groupings within each of four sub-provincial regions, using the age, sex and region information from 1983.

8.0 Data Quality

8.1 Response Rates

The table in Section 6.2 gives a breakdown of the sample by response type. The overall response rate for the 2000 collection was 71.5% of the original 3,294 longitudinal respondents.

8.2 Survey Errors

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

Errors which are not related to sampling may occur at almost every phase of a survey operation. Interviewers may misunderstand instructions, respondents may make errors in answering questions, the answers may be incorrectly entered on the questionnaire and errors may be introduced in the processing and tabulation of the data. These are all examples of non-sampling errors.

Over a large number of observations, randomly occurring errors will have little effect on estimates derived from the survey. However, errors occurring systematically will contribute to biases in the survey estimates. Considerable time and effort was made to reduce non-sampling errors in the survey. Quality assurance measures were implemented at each step of the data collection and processing cycle to monitor the quality of the data. These measures include the use of highly skilled interviewers, extensive training of interviewers with respect to the survey procedures and questionnaire, observation of interviewers to detect problems of questionnaire design or misunderstanding of instructions, procedures to ensure that data capture errors were minimized and coding and edit quality checks to verify the processing logic.

8.3 Measurement of Sampling Error

Since it is an unavoidable fact that estimates from a sample survey are subject to sampling error, sound statistical practice calls for researchers to provide users with some indication of the magnitude of this sampling error. This section of the documentation outlines the measures of sampling error which Statistics Canada commonly uses and which it urges users producing estimates from this microdata file to use also.

The basis for measuring the potential size of sampling errors is the standard error of the estimates derived from survey results.

However, because of the large variety of estimates that can be produced from a survey, the standard error of an estimate is usually expressed relative to the estimate to which it pertains. This resulting measure, known as the coefficient of variation (CV) of an estimate, is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate.

9.0 Guidelines for Tabulation, Analysis and Release

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

9.1 Rounding Guidelines

In order that estimates for publication or other release derived from these microdata files correspond to those produced by Statistics Canada, users are urged to adhere to the following guidelines regarding the rounding of such estimates:

- a) Estimates in the main body of a statistical table are to be rounded to the nearest hundred units using the normal rounding technique. In normal rounding, if the first or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is raised by one. For example, in normal rounding to the nearest 100, if the last two digits are between 00 and 49, they are changed to 00 and the preceding digit (the hundreds digit) is left unchanged. If the last digits are between 50 and 99 they are changed to 00 and the preceding digit is incremented by 1.
- b) Marginal sub-totals and totals in statistical tables are to be derived from their corresponding unrounded components and then are to be rounded themselves to the nearest 100 units using normal rounding.
- c) Averages, proportions, rates and percentages are to be computed from unrounded components (i.e. numerators and/or denominators) and then are to be rounded themselves to one decimal using normal rounding. In normal rounding to a single digit, if the final or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is increased by 1.
- d) Sums and differences of aggregates (or ratios) are to be derived from their corresponding unrounded components and then are to be rounded themselves to the nearest 100 units (or the nearest one decimal) using normal rounding.
- e) In instances where, due to technical or other limitations, a rounding technique other than normal rounding is used resulting in estimates to be published or otherwise released which differ from corresponding estimates published by Statistics Canada, users are urged to note the reason for such differences in the publication or release document(s).
- f) Under no circumstances are unrounded estimates to be published or otherwise released by users. Unrounded estimates imply greater precision than actually exists.

9.2 Sample Weighting Guidelines for Tabulation

The sample design used for the Ontario Child Health Study was not self-weighting. When producing simple estimates, including the production of ordinary statistical tables, users must apply the proper sampling weight.

If proper weights are not used, the estimates derived from the microdata files cannot be considered to be representative of the survey population, and will not correspond to those produced by Statistics Canada.

Users should also note that some software packages may not allow the generation of estimates that exactly match those available from Statistics Canada, because of their treatment of the weight field.

9.3 Guidelines for Statistical Analysis

The Ontario Child Health Study is based upon a complex sample design, with stratification, multiple stages of selection, and unequal probabilities of selection of respondents. Using data from such complex surveys presents problems to analysts because the survey design and the selection probabilities affect the estimation and variance calculation procedures that should be used. In order for survey estimates and analyses to be free from bias, the survey weights must be used.

While many analysis procedures found in statistical packages allow weights to be used, the meaning or definition of the weight in these procedures differ from that which is appropriate in a sample survey framework, with the result that while in many cases the estimates produced by the packages are correct, the variances that are calculated are poor. Approximate variances for simple estimates such as totals, proportions and ratios (for qualitative variables) can be derived using the accompanying Approximate Sampling Variability Tables.

For other analysis techniques (for example linear regression, logistic regression and analysis of variance), a method exists which can make the variances calculated by the standard packages more meaningful, by incorporating the unequal probabilities of selection. The method rescales the weights so that there is an average weight of 1.

For example, suppose that analysis of all male respondents is required. The steps to rescale the weights are as follows:

- 1) select all respondents from the file who reported SEX = male;
- 2) calculate the AVERAGE weight for these records by summing the original person weights from the microdata file for these records and then dividing by the number of respondents who reported SEX = male;
- 3) for each of these respondents, calculate a RESCALED weight equal to the original person weight divided by the AVERAGE weight;
- 4) perform the analysis for these respondents using the RESCALED weight.

However, because the stratification and clustering of the sample's design are still not taken into account, the variance estimates calculated in this way are likely to be under-estimates.

The calculation of more precise variance estimates requires detailed knowledge of the design of the survey. Such detail cannot be given in this microdata file because of confidentiality. Variances that take the complete sample design into account can be calculated for many statistics by Statistics Canada on a cost-recovery basis.

9.4 Coefficient of Variation Release Guidelines

Before releasing and/or publishing any estimate from the Ontario Child Health Study, 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 Chapter 8.0. 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 Chapter 8.0 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. 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 of 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 of 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>"Please be warned that these estimates [flagged with the letter U] do not meet Statistics Canada's quality standards. Conclusions based on these data will be unreliable, and most likely invalid."</p>

10.0 Approximate Sampling Variability Tables

In order to supply coefficients of variation (CV) which would be applicable to a wide variety of categorical estimates produced from this microdata file and which could be readily accessed by the user, a set of Approximate Sampling Variability Tables has been produced. These CV 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 are derived using the variance formula for simple random sampling and incorporating a factor which reflects the multi-stage, clustered nature of 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 (usually the 75th percentile) to be used in the CV tables which would then apply to the entire set of characteristics.

The table below shows the conservative value of the design effects as well as the sample size and population count for Ontario which was used to produce the Approximate Sampling Variability Table.

Province	Design Effect	Sample Size	Population
Ontario	1.42	2,384	1,610,145

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. Since the approximate CV is conservative, the use of actual variance estimates may cause the estimate to be switched from one quality level to another. For instance a *marginal* estimate could become *acceptable* based on the exact CV calculation.

Remember: if the number of observations on which an estimate is based is less than 30, the weighted estimate is most likely unacceptable and Statistics Canada recommends not to release such an estimate, regardless of the value of the coefficient of variation.

10.1 Coefficient of Variation Table

Ontario Child Health Survey (2nd Follow-up), 2000

Approximate Sampling Variability Tables for Ontario

NUMERATOR OF PERCENTAGE ('000)	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%
1	97.8	97.4	96.9	95.4	92.8	90.2	87.5	84.7	81.9	78.9	75.8	69.2	53.6	30.9
2	*****	68.9	68.5	67.4	65.6	63.8	61.9	59.9	57.9	55.8	53.6	48.9	37.9	21.9
3	*****	56.2	55.9	55.1	53.6	52.1	50.5	48.9	47.3	45.6	43.8	40.0	30.9	17.9
4	*****	48.7	48.4	47.7	46.4	45.1	43.8	42.4	40.9	39.4	37.9	34.6	26.8	15.5
5	*****	43.5	43.3	42.7	41.5	40.3	39.1	37.9	36.6	35.3	33.9	30.9	24.0	13.8
6	*****	39.8	39.5	38.9	37.9	36.8	35.7	34.6	33.4	32.2	30.9	28.2	21.9	12.6
7	*****	36.8	36.6	36.1	35.1	34.1	33.1	32.0	30.9	29.8	28.7	26.2	20.3	11.7
8	*****	34.4	34.3	33.7	32.8	31.9	30.9	30.0	28.9	27.9	26.8	24.5	19.0	10.9
9	*****	32.5	32.3	31.8	30.9	30.1	29.2	28.2	27.3	26.3	25.3	23.1	17.9	10.3
10	*****	30.8	30.6	30.2	29.4	28.5	27.7	26.8	25.9	24.9	24.0	21.9	16.9	9.8
11	*****	29.4	29.2	28.8	28.0	27.2	26.4	25.6	24.7	23.8	22.9	20.9	16.2	9.3
12	*****	28.1	28.0	27.5	26.8	26.0	25.3	24.5	23.6	22.8	21.9	20.0	15.5	8.9
13	*****	27.0	26.9	26.5	25.7	25.0	24.3	23.5	22.7	21.9	21.0	19.2	14.9	8.6
14	*****	26.0	25.9	25.5	24.8	24.1	23.4	22.7	21.9	21.1	20.3	18.5	14.3	8.3
15	*****	25.1	25.0	24.6	24.0	23.3	22.6	21.9	21.1	20.4	19.6	17.9	13.8	8.0
16	*****	24.3	24.2	23.8	23.2	22.6	21.9	21.2	20.5	19.7	19.0	17.3	13.4	7.7
17	*****	23.5	23.1	22.5	21.9	21.2	20.6	19.9	19.1	18.4	17.6	16.8	13.0	7.5
18	*****	22.8	22.5	21.9	21.3	20.6	20.0	19.3	18.6	17.9	17.1	16.3	12.6	7.3
19	*****	22.2	21.9	21.3	20.7	20.1	19.4	18.8	18.1	17.4	16.7	15.9	12.3	7.1
20	*****	21.7	21.3	20.8	20.2	19.6	19.0	18.3	17.6	16.9	16.2	15.5	12.0	6.9
21	*****	21.1	20.8	20.3	19.7	19.1	18.5	17.9	17.2	16.5	15.8	15.1	11.7	6.8
22	*****	20.7	20.3	19.8	19.2	18.7	18.1	17.5	16.8	16.2	15.5	14.8	11.4	6.6
23	*****	20.2	19.9	19.4	18.8	18.3	17.7	17.1	16.5	15.8	15.1	14.4	11.2	6.5
24	*****	19.8	19.5	19.0	18.4	17.9	17.3	16.7	16.1	15.5	14.9	14.1	10.9	6.3
25	*****	19.4	19.1	18.6	18.0	17.5	16.9	16.4	15.8	15.2	14.6	13.8	10.7	6.2
30	*****	17.7	17.4	16.9	16.5	16.0	15.5	14.9	14.4	13.8	13.2	12.6	9.8	5.6
35	*****	16.1	15.7	15.3	14.8	14.3	13.8	13.3	12.8	12.3	11.7	11.2	9.1	5.2
40	*****	15.1	14.7	14.3	13.8	13.4	12.9	12.5	12.0	11.6	11.2	10.9	8.5	4.9
45	*****	14.2	13.8	13.4	13.0	12.6	12.2	11.8	11.3	10.9	10.5	10.3	8.0	4.6
50	*****	13.5	13.1	12.8	12.4	12.0	11.6	11.2	10.7	10.3	9.8	9.4	7.6	4.4
55	*****	12.9	12.5	12.2	11.8	11.4	11.0	10.6	10.2	9.8	9.4	9.0	7.2	4.2
60	*****	12.3	12.0	11.6	11.3	10.9	10.6	10.2	9.8	9.4	9.0	8.6	6.9	4.0
65	*****	11.8	11.5	11.2	10.9	10.5	10.2	9.8	9.4	9.0	8.6	8.2	6.6	3.8
70	*****	11.4	11.1	10.8	10.5	10.1	9.8	9.4	9.0	8.6	8.2	7.8	6.4	3.7
75	*****	11.0	10.7	10.4	10.1	9.8	9.5	9.1	8.8	8.4	8.0	7.6	6.2	3.6
80	*****	10.7	10.4	10.1	9.8	9.5	9.2	8.8	8.5	8.1	7.8	7.4	6.0	3.5
85	*****	10.1	9.8	9.5	9.2	8.9	8.6	8.2	7.9	7.6	7.2	6.8	5.8	3.4
90	*****	9.8	9.5	9.2	8.9	8.6	8.3	8.0	7.7	7.4	7.1	6.7	5.6	3.3
95	*****	9.5	9.3	9.0	8.7	8.4	8.1	7.8	7.5	7.2	6.9	6.5	5.5	3.2
100	*****	9.3	9.0	8.8	8.5	8.2	7.9	7.6	7.3	7.0	6.7	6.4	5.4	3.1
125	*****	8.3	8.1	7.8	7.6	7.3	7.1	6.8	6.5	6.2	5.9	5.6	4.8	2.8
150	*****	7.6	7.4	7.1	6.9	6.7	6.4	6.2	5.9	5.6	5.4	5.1	4.4	2.5
200	*****	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8	4.6	4.4	3.8	2.2
250	*****	5.5	5.4	5.2	5.0	4.8	4.6	4.4	4.2	4.0	3.8	3.6	3.4	2.0
300	*****	5.1	4.9	4.7	4.6	4.4	4.2	4.0	3.8	3.6	3.4	3.2	3.1	1.8
350	*****	4.5	4.4	4.2	4.1	3.9	3.8	3.6	3.4	3.2	3.0	2.8	2.9	1.7
400	*****	4.2	4.1	3.9	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.7	1.5
450	*****	3.9	3.7	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.2	2.0	2.5	1.5
500	*****	3.5	3.4	3.1	2.9	2.7	2.5	2.3	2.1	1.9	1.7	1.5	2.4	1.4
750	*****	2.5	2.4	2.1	1.9	1.7	1.5	1.3	1.1	1.0	0.9	0.8	2.0	1.1
1000	*****	1.7	1.6	1.4	1.3	1.1	1.0	0.9	0.8	0.7	0.6	0.5	1.7	1.0

NOTE: For correct usage of this table please refer to microdata documentation.