Microdata User Guide

Adult Education and Training Survey

2003

Statistics Canada Statistique Canada

Canada

Table of Contents

1.0 Introduction

The Adult Education and Training Survey (AETS) was conducted by Statistics Canada in February and March of 2003 with the cooperation and support of Human Resources Development Canada. The reference year for this survey was 2002. 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:

Statistics Canada

Client Services
Centre for Education Statistics
Telephone: (613) 951-7608 or call toll-free 1 800 307-3382
Fax: (613) 951-9040
E-mail: educationstats@statcan.ca

Human Resources Development Canada

Cindy Carter
Human Resources and Skills Development Canada
Place du Portage, Phase IV,
3rd Floor, 3C299
140 Promenade du Portage
Gatineau, Quebec K1A 0J9
Telephone: (613) 953-3214
Fax: (613) 953-5433
E-mail: cindy.carter@hrdc-drhc.gc.ca

2.0 Background

The Adult Education and Training Survey (AETS) is Canada's most comprehensive source of data on individual participation in formal adult education and training. It is the only Canadian survey to collect detailed information about the skill development efforts of the entire Canadian adult population. The AETS provides information about the main subject of training activities, their provider, duration and the sources and types of support for training. Furthermore, the AETS allows for the examination of the socio-economic and demographic profiles of both training participants and non-participants. This survey also identifies barriers faced by individuals who wish to take some form of training but cannot. The AETS was administered three times during the 1990s, in 1992, 1994 and 1998, as a supplement to the Labour Force Survey (LFS).

The content of the AETS was revised to take into account recommendations coming from consultation exercises. As a result, more than half of the 2003 survey is made up of new questions and the target population has been modified. The main recommendations in terms of content changes relate to the type of training activity covered and the strategy to select randomly one activity for detailed information. These changes are detailed under the concepts and definitions section of this document.

3.0 Objectives

As with earlier versions of the Adult Education and Training Survey (AETS), the 2003 survey covers participation in all types of formal training during 2002. However, starting in 2003, the AETS focuses on job-related training. More specifically, here are the objectives set for this survey:

1) To measure the incidence and intensity of adults' participation in job-related formal training.

2) To profile employer support for job-related formal training.

3) To analyze the aspects of job-related training activities such as: training provider, expenses, financial support, motivations, outcomes and difficulties experienced while training.

4) To identify the barriers preventing individuals from participating in the job-related formal training they want or need to take.

5) To identify reasons explaining adults' lack of participation and interest in job-related formal training.

6) To relate adults' current participation patterns to their past involvement and plans about future participation in job-related training.

7) To measure the incidence and frequency of adults' participation in job-related informal training.

8) To examine the interactions between participation in formal and informal job-related training.

4.0 Concepts and Definitions

This chapter outlines concepts and definitions of interest to the users. The concepts and definitions used in the Labour Force Survey (LFS) are described in Section 4.1 while those specific to the Adult Education and Training Survey (AETS) are given in Section 4.2. Users are referred to Chapter 12.0 of this document for a copy of the actual survey form used.

4.1 Labour Force Survey Concepts and Definitions

Labour Force Status

Designates the status of the respondent vis-à-vis the labour market: a member of the non-institutional population 15 years of age and over is either **employed, unemployed** or **not in the labour force**.

Employment

Employed persons are those who, during the reference week:

a) did any work[1] at all at a job or business; or
b) had a job but were not at work due to factors such as own illness or disability, personal or family responsibilities, vacation, labour dispute or other reasons (excluding persons on layoff, between casual jobs, and those with a job to start at a future date).

Unemployment

Unemployed persons are those who, during the reference week:

a) were on temporary layoff during the reference week with an expectation of recall and were available for work; or
b) were without work, had actively looked for work in the past four weeks, and were available for work[2]; or
c) had a new job to start within four weeks from the reference week, and were available for work.

Not in the Labour Force

Persons not in the labour force are those who, during the reference week, were unwilling or unable to offer or supply labour services under conditions existing in their labour markets, that is, they were neither employed nor unemployed.

[1] Work includes any work for pay or profit, that is, paid work in the context of an employer-employee relationship, or self-employment. It also includes unpaid family work, which is defined as unpaid work contributing directly to the operation of a farm, business or professional practice owned and operated by a related member of the same household. Such activities may include keeping books, selling products, waiting on tables, and so on. Tasks such as housework or maintenance of the home are not considered unpaid family work.

[2] Persons are regarded as available for work if they:

i) reported that they could have worked in the reference week if a suitable job had been offered; or if the reason they could not take a job was of a temporary nature such as: because of own illness or disability, personal or family responsibilities, because they already have a job to start in the near future, or because of vacation (prior to 1997, those on vacation were not considered available).
ii) were full-time students seeking part-time work who also met condition i) above. Full-time students currently attending school and looking for full-time work are not considered to be available for work during the reference week.

Industry and Occupation

The Labour Force Survey provides 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 12 months. Since 1997, these statistics have been based on the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC-91). Prior to 1997, the 1980 Standard Industrial Classification and the 1980 Standard Occupational Classification were used.

Reference Week

The entire calendar week (from Sunday to Saturday) covered by the Labour Force Survey each month. It is usually the week containing the 15th day of the month. The interviews are conducted during the following week, called the Survey Week, and the labour force status determined is that of the reference week.

Full-time Employment

Full-time employment consists of persons who usually work 30 hours or more per week at their main or only job.

Part-time Employment

Part-time employment consists of persons who usually work less than 30 hours per week at their main or only job.

4.2 Adult Education and Training Survey Concepts and Definitions

Target population

The population covered by the 2003 AETS consists of Canadians 25 years of age and older. This is a change from the population targeted by the 1998 AETS, which consisted of Canadians aged 17 years of age and older. A primary consideration for this change was the practical difficulties in applying the definition of adult education to individuals in the 17 to 24 year old age group. By definition, adult education excludes students who are still involved in their first or initial stage of schooling. As previous AETS surveys did not precisely identify students still in their initial stage of schooling, analyses using this data had to rely on an ad hoc definition of adult learners. According to this definition, individuals aged 17 to 24 who were not in one of the following situations were excluded from the analysis: full-time students subsidized by an employer and full-time students over 19 enrolled in elementary or secondary programs.

However, as school-work and work-school transitions become increasingly dynamic and fluid for this age group, identifying those in their initial stage of education becomes increasingly difficult. Another consideration in making this change was the standard definition of “adult education and training” used by the Organisation for Economic Co-operation and Development (OECD) in its publications (see for example OECD 1999). This definition generally encompasses the education and training of individuals 25 years of age and older who have completed their initial schooling and then returned to further their education.

Training activities

The 2003 AETS collects information describing individual participation both in job-related and personal interest training at the person level (person level information). The survey also collects information to describe training activities (activity level information). However, unlike the 1998 AETS, activity level information is restricted to job-related activities.

Number of training activities

Historically, the AETS collected information on up to a maximum of 15 training activities, allowing person level and activity level analysis for any variable. In 2003, to reduce the duration of the interview and improve the data quality, the number of job-related training activities for which detailed information is collected has been restricted to one. This allows the survey to maintain a level of detail on key measures. As well limited information is collected for other job-related training activities to a maximum of nine.

Labour market situation

The changes made to the 2003 AETS with regard to the respondents' labour force status aims at providing a richer picture of their situation in the labour market during the reference year and while training, as opposed to the labour force status reported during the LFS reference week, as was done with previous AETS data.

Second language training and basic reading, writing and math skills

For the 2003 AETS, two new questions ask about participation in second language training (CP_Q03) and basic reading, writing and math skills (CP_Q02). These questions are directed at both course and program specific training whereas the 1998 AETS restricted this measure to program participants.

Provider

The training provider refers to the institution or person who is providing the training and not to the training organizer or financier. The 1998 AETS collected information on both the location and the provider of the training. The 2003 AETS focuses more specifically on the provider of the training in order to enable an examination of how the market for adult education and training is organized. Furthermore, the list of providers was updated to better reflect the key players involved in the area of adult education and training (i.e. an employer, a private training institute or private business schools, a professional association, a union and community centre).

Work placement

This question is new to the 2003 AETS (CP_Q09). Work placement, including co-op training, is an increasingly common component of educational programs and has been added to the 2003 AETS in order to measure this dimension of training. They are formal programs sponsored by an institution where students get paid work with employers as part of their education so they can learn from work experience.

Distance Training, E-learning

The 2003 AETS measures participation in distance training and e-learning through detailed response categories. Any form of education in which the teachers and students are not in the same place is considered distance education. Examples include correspondence education, teaching by television and radio, internet or e-mail and regular mail.

Duration

Time spent in training by the individual is defined as the total number of hours that the individual has spent participating in classes, courses, lectures and tutorials. This information is valuable as it can be used as a proxy for training intensity. Furthermore, duration is a proxy measure of the investment in human capital by both individuals and employers.

New to the 2003 AETS, the Course/Program (CP) module has a question asking which months in 2002 the respondent took training (CP_Q13). This question was added to allow for a more thorough interpretation of the training outcomes as it will enable an evaluation of the elapsed time since the completion of the training event. It will also provide information on the patterns of participation in training activities throughout the year.

The 1998 and 2003 AETS collects duration differently for programs and courses. The approach used for measuring program duration in 2003 is similar to the approach used in 1998 with the exception that program duration is not reported separately for full-time and part-time participation. In 1998, for all courses with more than six hours per day, the respondent was asked the number of days he had followed that training. Hence the survey was not providing the exact number of hours for this group of courses. In 2003, respondents are given the choice of reporting their course duration in terms of months, weeks or days. For each scenario, a series of follow-up questions is asked which enables the computation of hours for each course.

Labour force status while training

The 2003 AETS asks respondents about their labour force status while training. Respondents who had a job while training and held a job during the LFS reference week are asked whether their job while training was the same as their current job (or most recent job when they are unemployed during the LFS reference week). With the affirmative, this allows linking the information provided by the LFS to the job held while training.

Expenses and financial support

In addition to collecting information on financial support for training, the 2003 AETS collects more information about the individuals' financial investment in their training by asking respondents about the amount of money they personally paid for their training. When the amount invested is higher than $1,000, respondents are also asked how they financed their individual contributions (i.e. through a loan, Registered Education Savings Plan, personal savings). The value of $1,000 is used as a lower bound since, according to cognitive testing respondents are not likely to use the listed financing mechanisms for smaller amounts. Sources of financial support are an indicator of the extent to which the respondent makes private investments in improving their skills and also provides an indication about how employers support training. In addition, detailed information on individual contributions may be an indicator of the individual's commitment to training.

Employer support

Information on employer support and the type of employer support offers insight into the provision and financing of learning opportunities for adults. The 2003 AETS distinguishes amongst four types of employer support: providing the training, financing the training, allowing for participation during working hours and other support (includes flexible work schedule, providing transportation or any other type of support). The CP module asks separate questions on these four types of employer support. The Benchmarking Information (BN) module combines this information in one question for each of the activities not covered in the CP module. The level of detail on type of employer support is less than that obtained in the 1998 AETS.

Participation during work hours

The 2003 AETS asks about participation in training during the respondent's working hours. This question replaces the 1998 AETS question about whether the employer provided paid or unpaid time-off. Participation during working hours is an important indication of employer support. It may also be interpreted as an indicator of the respondent's readiness to devote his/her own time to training. In addition, it could also be examined in conjunction with time barriers to training to better understand time constraints reported by participants.

Mandatory participation

The key concept underlying mandatory enrolment refers to an external requirement to participate in the training. Although this concept was alluded to in the 1998 AETS by asking participants who suggested the training, it was not measured directly. The word "suggested" could be interpreted as having an obligation to take training as well as personally deciding to take training because of a suggestion. The new questions are more explicit by providing additional insight into the underlying reasons for taking training.

Motivations

Questions relating to training objectives are meant to measure the motives for the respondent's participation in the training, specifically, the areas for which the respondent expected the training to be of value when the decision to participate was made.

In 1998, the survey asked respondents to rate the importance of various factors in considering the reasons why they took training. The question wording was redefined for the 2003 AETS. In 2003 respondents are asked about their objectives in taking the training. This variable is a composite variable, meaning that a number of motives may contribute to the respondent's decision to participate. The 2003 survey seeks to collect in more detail the individuals' motives for participation in job-related training with respect to key labour market activities. Combined with information provided by the respondent on training outcomes, analysis can be done on whether training objectives were realized.

Completion status

The 2003 AETS includes a new question, which asks respondents whether they have received certification or a license for the course (CP_Q35). This question indicates whether respondents received an official certification for the courses they have taken. The certification must not only attest to the respondent's attendance or participation in the training. It must be a formal recognition of knowledge and competencies acquired through training, such as carrying out specific duties.

Outcomes

The 2003 AETS obtains information on the respondents' qualitative assessment of their training outcomes but does not provide detailed information on labour market transitions and wages. However, the same response categories are used for measuring motivations and outcomes, permitting analysis of both expected and unexpected training outcomes. In other words the user can see what training objectives were realized and whether any outcome was achieved without having its corresponding initial objective set. This information can then be used in conjunction with information on completion status and skills acquired.

Difficulties experienced while training

The 2003 AETS provides new information on obstacles encountered while training. In conjunction with the information collected in the Barriers (BR) module, it also provides insight into the characteristics that enable respondents to overcome perceived barriers.

A question about barriers faced prior to enrolling in training has also been developed (i.e. finding the money, transportation, concerns about being successful, finding information, where the information was found), but not retained.

Barriers to formal training

The 2003 AETS provides a clearer understanding of the factors hindering respondents' participation in formal training. Response categories were added or modified to expand the range of reasons related to the major barriers to training. These new categories related to time and financial issues were mentioned by respondents in the 1998 AETS.

Previous AETS questionnaires focused on individuals who participated in formal training, and on those who expressed unmet training needs or wants. The 2003 AETS goes beyond the basic socio-demographic profile of these individuals by asking about reasons that explain these individuals' lack of interest in training. To bring further refinements to this portrait of "core" non-participants, new questions also cover participation in training in the past five years and intentions about training in the next three years.

The 1998 AETS asked detailed questions about barriers to two types of training: first it asked about barriers to job or career-related training the respondent needed but did not take, and then it asked about barriers to job-related or personal interest training the respondent wanted but did not take. Because the focus of the 2003 AETS is on job-related training, barrier questions on education or training relate to a current or future job only.

Informal training

The 2003 AETS includes new questions that gather basic information about adults' participation in informal training activities. Informal training is defined here as training involving no (or very little) reliance on pre-determined guidelines for its organization, delivery and assessment. Moreover, it must be undertaken with the specific intention to develop some skills or knowledge. This implies that learning that happens incidentally, as a by-product of an activity, should not be considered as informal training for the purpose of the AETS. Since the focus of the 2003 AETS is on the development of skills useful in the labour market, its informal training questions concentrate on activities leading to the acquisition or improvement of job-related skills. Questions on incidence, frequency, timing and usefulness related to informal training are also asked.

Note: See Appendix IV for a more detailed comparison of the concepts between the 2003 and 1998 AETS.

5.0 Survey Methodology

The Adult Education and Training Survey (AETS) was administered in February and March of 2003 to a sub-sample of the dwellings in the Labour Force Survey (LFS) sample, and therefore its sample design is closely tied to that of the LFS. The LFS design is briefly described in Sections 5.1 to 5.4[3]. Sections 5.5 and 5.6 describe how the AETS departed from the basic LFS design.

5.1 Population Coverage

The LFS is a monthly household survey of a sample of individuals who are representative of the civilian, non-institutionalized population 15 years of age or older in Canada's ten provinces. Specifically excluded from the survey's coverage are residents of the Yukon, Northwest Territories and Nunavut, persons living on Indian Reserves, full-time members of the Canadian Armed Forces and inmates of institutions. These groups together represent an exclusion of approximately 2% of the population aged 15 or over.

5.2 Sample Design

The LFS sample is based upon a stratified, multi-stage design employing probability sampling at all stages of the design. The design principles are the same for each province. A diagram summarizing the design stages can be found in the document LFS_AppendixA.pdf.

5.2.1 Primary Stratification

Provinces are divided into economic regions (ER) and employment insurance economic regions (EIER). ERs are geographic areas of more or less homogeneous economic structure formed on the basis of federal-provincial agreements. They are relatively stable over time. EIERs are also geographic areas, and are roughly the same size and number as ERs, but they do not share the same definitions. Labour force estimates are produced for the EIERs for the use of Human Resources Development Canada.

The intersections of the two types of regions form the first level of stratification for the LFS. These ER/EIER intersections are treated as primary strata and further stratification is carried out within them (see Section 5.2.3). Note that a third set of regions, census metropolitan areas (CMA), is also respected by stratification in the current LFS design, since each CMA is also an EIER.

5.2.2 Types of Areas

The primary strata (ER/EIER intersections) are further disaggregated into three types of areas: rural, urban, and remote areas. Urban and rural areas are loosely based on the Census definitions of urban and rural, with some exceptions to allow for the formation of strata in some areas. Urban areas include the largest CMAs down to the smallest villages categorized by the 1991 Census as urban (1,000 people or more), while rural areas are made up of areas not designated as urban or remote.

All urban areas are further subdivided into two types: those using an apartment list frame and an area frame, as well as those using only an area frame.

[3] A detailed description of the LFS design is available in the Statistics Canada publication entitled *Methodology of the Canadian Labour Force Survey*, Catalogue no. 71-526-XPB.

Approximately 1% of the LFS population is found in remote areas of provinces which are less accessible to LFS interviewers than other areas. For administrative purposes, this portion of the population is sampled separately through the remote area frame. Some populations, not congregated in places of 25 or more people, are excluded from the sampling frame.

5.2.3 Secondary Stratification

In urban areas with sufficiently large numbers of apartment buildings, the strata are subdivided into apartment frames and area frames. The apartment list frame is a register maintained for the 18 largest cities across Canada. The purpose of this is to ensure better representation of apartment dwellers in the sample as well as to minimize the effect of growth in clusters, due to construction of new apartment buildings. In the major cities, the apartment strata are further stratified into low income strata and regular strata.

Where it is possible and/or necessary, the urban area frame is further stratified into regular strata, high income strata, and low population density strata. Most urban areas fall into the regular urban strata, which, in fact, cover the majority of Canada's population. High income strata are found in major urban areas, while low density urban strata consist of small towns that are geographically scattered.

In rural areas, the population density can vary greatly from relatively high population density areas to low population density areas, resulting in the formation of strata that reflect these variations. The different stratification strategies for rural areas were based not only on concentration of population, but also on cost-efficiency and interviewer constraints.

In each province, remote settlements are sampled proportional to the number of dwellings in the settlement, with no further stratification taking place. Dwellings are selected using systematic sampling in each of the places sampled.

5.2.4 Cluster Delineation and Selection

Households in final strata are not selected directly. Instead, each stratum is divided into clusters, and then a sample of clusters is selected within the stratum. Dwellings are then sampled from selected clusters. Different methods are used to define the clusters, depending on the type of stratum.

Within each urban stratum in the urban area frame, a number of geographically contiguous groups of dwellings, or clusters, are formed based upon 1991 Census counts. These clusters are generally a set of one or more city blocks or block-faces. The selection of a sample of clusters (always six or a multiple of six clusters) from each of these secondary strata represents the first stage of sampling in most urban areas. In some other urban areas, census enumeration areas (EA) are used as clusters. In the low density urban strata, a three stage design is followed. Under this design, two towns within a stratum are sampled, and then 6 or 24 clusters within each town are sampled.

For urban apartment strata, instead of defining clusters, the apartment building is the primary sampling unit. Apartment buildings are sampled from the list frame with probability proportional to the number of units in each building.

Within each of the secondary strata in rural areas, where necessary, further stratification is carried out in order to reflect the differences among a number of socio-economic characteristics within each stratum. Within each rural stratum, six EAs or two or three groups of EAs are sampled as clusters.

5.2.5 Dwelling Selection

In all three types of areas (urban, rural and remote areas) selected clusters are first visited by enumerators in the field and a listing of all private dwellings in the cluster is prepared. From the listing, a sample of dwellings is then selected. The sample yield depends on the type of stratum. For example, in the urban area frame, sample yields are either six or eight dwellings, depending on the size of the city. In the urban apartment frame, each cluster yields five dwellings, while in the rural areas and EA parts of cities, each cluster yields 10 dwellings. In all clusters, dwellings are sampled systematically. This represents the final stage of sampling.

5.2.6 Person Selection

Demographic information is obtained for all persons in a household for whom the selected dwelling is the usual place of residence. LFS information is obtained for all civilian household members 15 years of age or older. Respondent burden is minimized for the elderly (age 70 and over) by carrying forward their responses for the initial interview to the subsequent five months in the survey.

5.3 Sample Size

The sample size of eligible persons in the LFS is determined so as to meet the statistical precision requirements for various labour force characteristics at the provincial and sub-provincial level, to meet the requirements of federal, provincial and municipal governments as well as a host of other data users.

The monthly LFS sample consists of approximately 60,000 dwellings. After excluding dwellings found to be vacant, dwellings demolished or converted to non-residential uses, dwellings containing only ineligible persons, dwellings under construction, and seasonal dwellings, about 54,000 dwellings remain which are occupied by one or more eligible persons. From these dwellings, LFS information is obtained for approximately 102,000 civilians aged 15 or over.

5.4 Sample Rotation

The LFS follows a rotating panel sample design, in which households remain in the sample for six consecutive months. The total sample consists of six representative sub-samples or panels, and each month a panel is replaced after completing its six month stay in the survey. Outgoing households are replaced by households in the same or a similar area. This results in a five-sixths month-to-month sample overlap, which makes the design efficient for estimating month-to-month changes. The rotation after six months prevents undue respondent burden for households that are selected for the survey.

Because of the rotation group feature, it is possible to readily conduct supplementary surveys using the LFS design but employing less than the full size sample.

5.5 Modifications to the Labour Force Survey Design for the Adult Education and Training Survey

The Adult Education and Training Survey used five of the six rotation groups in the February LFS sample. For the AETS, the coverage of the LFS was modified to include only those households with at least one member 25 years of age or older. However, unlike the LFS where information is

collected for all eligible household members, the AETS only collected information from one pre-selected household member and proxy responses were not permitted. For people aged 65 and over, the probability of selection was reduced since this part of the population is not the main focus of the survey. Therefore the bulk of the sample consists of people aged 25 to 64.

5.6 Sample Size by Province for the Adult Education and Training Survey

The following table shows the number of households in the LFS sampled rotations that were eligible for the AETS supplement. This table includes households that were non-respondents to the LFS.

Province	Sample Size
Newfoundland and Labrador	1,630
Prince Edward Island	1,185
Nova Scotia	2,698
New Brunswick	2,418
Quebec	8,562
Ontario	12,989
Manitoba	3,264
Saskatchewan	3,320
Alberta	4,493
British Columbia	4,408
Canada	**44,967**

6.0 Data Collection

Data collection for the Labour Force Survey (LFS) is carried out each month during the week following the LFS reference week. The reference week is normally the week containing the 15th day of the month.

6.1 Interviewing for the Labour Force Survey

Statistics Canada interviewers are employees hired and trained to carry out the LFS and other household surveys. Each month they contact the sampled dwellings to obtain the required labour force information. Each interviewer contacts approximately 75 dwellings per month.

Dwellings new to the sample are usually contacted through a personal visit using the computer-assisted personal interview (CAPI). The interviewer first obtains socio-demographic information for each household member and then obtains labour force information for all members aged 15 and over who are not members of the regular armed forces. Provided there is a telephone in the dwelling and permission has been granted, subsequent interviews are conducted by telephone. This is done out of a centralized computer-assisted telephone interviewing (CATI) unit where cases are assigned randomly to interviewers. As a result, approximately 85% of all households are interviewed by telephone. In these subsequent monthly interviews, the interviewer confirms the socio-demographic information collected in the first month and collects the labour force information for the current month.

In each dwelling, information about all household members is usually obtained from one knowledgeable household member. Such ”proxy” reporting, which accounts for approximately 65% of the information collected, is used to avoid the high cost and extended time requirements that would be involved in repeat visits or calls necessary to obtain information directly from each respondent.

If, during the course of the six months that a dwelling normally remains in the sample, an entire household moves out and is replaced by a new household, information is obtained about the new household for the remainder of the six-month period.

At the conclusion of the LFS monthly interviews, interviewers introduce the supplementary survey, if any, to be administered to some or all household members that month.

6.2 Supervision and Quality Control

All LFS interviewers are under the supervision of a staff of senior interviewers who are responsible for ensuring that interviewers are familiar with the concepts and procedures of the LFS and its many supplementary surveys, and also for periodically monitoring their interviewers and reviewing their completed documents. The senior interviewers are, in turn, under the supervision of the LFS program managers, located in each of the Statistics Canada regional offices.

6.3 Non-response to the Labour Force Survey

Interviewers are instructed to make all reasonable attempts to obtain LFS interviews with members of eligible households. For individuals who at first refuse to participate in the LFS, a letter is sent from the Regional Office to the dwelling address stressing the importance of the survey and the household's cooperation. This is followed by a second call (or visit) from the interviewer. For cases in which the timing of the interviewer's call (or visit) is inconvenient, an appointment is arranged to call back at a more convenient time. For cases in which there is no one home, numerous call backs are made. Under no circumstances are sampled dwellings replaced by other dwellings for reasons of non-response.

Each month, after all attempts to obtain interviews have been made, a small number of non-responding households remain. For households non-responding to the LFS and for which LFS information was obtained in the previous month, this information is brought forward and used as the current month's LFS information. No supplementary survey information is collected for these households.

6.4 Data Collection Modifications for the Adult Education and Training Survey

The Adult Education and Training Survey (AETS) was administered to one randomly selected individual per household. The random selection was carried out at the time of the interview.

Upon completion of the Labour Force Survey interview, the interviewer asked to speak to the selected person for the AETS. If the selected person was not available, the interviewer arranged for a convenient time to phone back. Proxy response was not allowed; hence the collection period was extended by two weeks to allow the interviewers' time to contact the pre-selected individuals.

6.5 Non-response to the Adult Education and Training Survey

For households responding to the LFS, the next stage of data collection was to administer the Adult Education and Training Survey. If the AETS selected respondent was not available at the time of the LFS interview several attempts were made to reach the respondent. If after several call back attempts no contact was made a final status code was assigned.

All non-interviews for the Labour Force Survey are automatically non-interviews for the Adult Education and Training Survey. The computer automatically assigned a final status code in this situation. These cases were routed to the Regional Office and were no longer accessible for the AETS interview.

7.0 Data Processing

The main output of the Adult Education and Training Survey (AETS) is a "clean" microdata file. This chapter presents a brief summary of the processing steps involved in producing this file.

The output of 2003 AETS has been stored in two separate data files: the MAIN file and the TRAINING file. A third file which includes the Labour Force Survey (LFS) component for the remaining household members is available for internal analysis purposes only.

The **MAIN** data file contains data from the following modules and other sources:

LF - Labour Force
SC - Screening Questions
CP - Course/Program (on the MAIN master microdata file only)
BN - Benchmarking Information
BR - Barriers
SD - Self-Directed Learning
DM - Demographics
Derived variables
Labour Force Survey variables related to the selected respondent

In the MAIN data file each respondent could report up to ten training activities, five programs and five courses. However, it should be noted that in question SC_Q03 respondents could report taking up to a maximum of 50 courses, but additional information was only collected for five of these courses. Benchmark information was only asked of those respondents who took more then one training activity in 2002[4]. The remaining modules were asked of all respondents. The only Course/Program (CP) information on the MAIN master data file are those variables that are equivalent to a Benchmark (BN) question. For example, CP_Q14 is the same question as BN_Q04. The corresponding BN variable is stated in a note on each CP variable in the MAIN master microdata file codebook.

Since the benchmark information (BN module) was asked for all activities excluding the selected activity, each activity can be identified by the number at the end of the variable name.

Question Name	Type of Training Activity
BNQXX_1	Relates to a high school program
BNQXX_2	Relates to a registered apprenticeship program
BNQXX_3	Relates to a trade/vocational program
BNQXX_4	Relates to a college/CEGEP program
BNQXX_5	Relates to a university program
BNQXX_6	Relates to first course name
BNQXX_7	Relates to second course name
BNQXX_8	Relates to third course name
BNQXX_9	Relates to fourth course name
BNQXX_10	Relates to fifth course name

Note: For the selected activity the benchmark information will not be completed. Information for that activity will only be found in the TRAINING data file (CP module).

[4] Questions in the BN module focus on all job-related training activities not covered in the CP module. Therefore, if only one training activity was taken the BN module does not apply to the respondent.

The **TRAINING** data file contains the following:

CP - Course/Program module information
Derived variables

The TRAINING file contains only those respondents who took at least one training activity in 2002. This file contains the selected activity for which detailed information was collected. This activity was randomly selected and could be either a program or a course.

7.1 Data Capture

Responses to survey questions are captured directly by the interviewer at the time of the interview using a computerized questionnaire. The computerized questionnaire reduces processing time and costs associated with data entry, transcription errors, and data transmission. The response data are encrypted to ensure confidentiality and sent via modem to the appropriate Statistics Canada Regional Office. From there they are transmitted over a secure line to Ottawa for further processing.

Some editing is done directly at the time of the interview. Where the information entered is out of range (too large or small) of expected values, or inconsistent with previous entries, the interviewer is prompted, through message screens on the computer, to modify the information. However, for some questions interviewers have the option of bypassing the edits, and of skipping questions if the respondent does not know the answer or refuses to answer. Therefore, the response data are subjected to further edit and imputation processes once they arrive in head office.

7.2 Editing

A series of edits are done at the head office to ensure consistency within the data file. These include both manual and systematic interventions. For the AETS, several manual verifications were done to identify logical inconsistencies. Also, a systematic verification was done on the flow path of the data. All questions that do not pertain to a respondent and are therefore not asked are assigned a “valid skip” code. The flow path is pre-set in the computer application. As well, any non-response is assigned a “not stated” code.

In all cases, editing changes are recorded and this information is used to assess various aspects of the surveys performance.

7.3 Coding of Open-ended Questions

A few data items on the questionnaire were recorded by interviewers in an open-ended format. A total of eight partially or completely open-ended questions were included in the survey. These were questions relating to course name, field of study, reasons for not taking training, ethnic background and country of birth.

The first type of coding performed relates to “Other - Specify” questions. This type of write-in occurs when a question has a list of possible response categories, as well as the option of stating another response not already listed. In this situation the text was captured and then manually reviewed. If the write-in matched an existing category to the question, the appropriate category was set to *“Yes”* and the *“Other - Specify”* was set to *“No”*.

The second type of coding performed relates to field of study or specialization of a program and the title or name of courses taken during 2002. Field of study program descriptions were coded using the Classification of Instructional Programs (CIP – 2000, November 2001) (see Appendix III). The coding system used in 2003 was different than the system used in 1998.

There were 1,878 programs coded and 11,858 courses coded (including uncodable programs and courses, which were assigned a ”not stated” code).

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 (see Chapter 11.0). Item non-response is when the respondent does not provide an answer to one question, but goes on to the next question. These are usually handled using the “not stated” or are imputed. Finally, partial non-response is when the respondent provides the minimum set of questions but does not finish the interview. These records can be handled like either complete non-response or multiple item non-response.

In the case of the Adult Education and Training Survey, donor imputation was used to fill in missing data for item non-response for the number of training hours. Further information on the imputation process is given in Chapter 8.0 (Data Quality).

7.5 Creation of Derived Variables

A number of data items on the microdata file have been derived by combining items on the questionnaire in order to facilitate data analysis. This may be done by using one variable or a combination of variables. The following is a list of the derived variables for the AETS. Note, any derived variable indicated with gray shading is not found on the MAIN and/or TRAINING public use microdata file.

Labour Force	Description
LFST02	Labour force status of respondent during reference year (2002)
LFEMT02	Employment status of respondent during reference year (2002)
LFST03	Labour force status at the time of interview (February or March 2003)
LFTT02	Labour force status of respondent at time of training (2002)

Training Activities	Description
TAHRJR0	Duration of selected job-related training activity
TAHRJR* (1 to 10)	Duration of job-related training activity
TAHRPM* (0 to 5)	Duration of job-related program
TAHRCR* (0 to 5)	Duration of job-related course
TAESJR* (0 to 10)	Employer sponsored job-related training activity
TAESPM* (0 to 5)	Employer sponsored job-related program
TAESCR* (0 to 5)	Employer sponsored job-related course
TACOST	Completion status
TAESTY_1	Employer provided training
TAESTY_2	Employer paid tuition
TAESTY_3	Tuition paid by individual but reimbursed by employer
TAESTY_4	Employer provided additional support
TAESTY_5	Training allowed during work hours

Taking Training	Description
TKAL	Respondent took any training activities
TKJR	Respondent took job-related activities
TKPM	Respondent took job-related programs
TKCR	Respondent took job-related courses
TKPI	Respondent took personal interest training activities
TKNBJR	Number of job-related training activities
TKNBPM	Number of job-related programs
TKNBCR	Number of job-related courses
TKHRJR	Duration of job-related training activities
TKHRPM	Duration of job-related programs
TKHRCR	Duration of job-related courses

Taking Employer Sponsored Training	Description
TEJR	Respondent took employer sponsored training activities
TEPM	Respondent took employer sponsored training programs
TECR	Respondent took employer sponsored training courses
TENBJR	Number of employer sponsored job-related training activities
TENBPM	Number of employer sponsored job-related programs
TENBCR	Number of employer sponsored job-related courses

Taking Non-employer Sponsored Training	Description
TNNBJR	Number of non-employer sponsored job-related training activities
TNNBPM	Number of non-employer sponsored job-related programs
TNNBCR	Number of non-employer sponsored job-related courses

Motivations and Outcomes	Description
Objectives	
MOJROB_1	Increase your income
MOJROB_2	Avoid losing your job
MOJROB_3	Get a promotion
MOJROB_4	Do your job better
MOJROB_5	Start your own business
MOJROB_6	Help you find or change jobs
MOJROB_7	Other
Outcomes	
MOJROU_1	Increase your income
MOJROU_2	Keep your job
MOJROU_3	Get a promotion
MOJROU_4	Do your job better
MOJROU_5	Start your own business
MOJROU_6	Help you find or change jobs
MOJROU_7	Other

Self-Directed Training and Barriers (Informal Training)	Description
SBBA	Overall job-related informal training barriers
SBJR	Overall job-related informal training

Socio-Demographics	Description
SCIMAG	Age at immigration

Classification of Instructional Programs (CIP)	Description
CIPPM* (0 to 5)	Classification of instructional programs for programs
CIPCR* (0 to 5)	Classification of instructional programs for courses
CIPPMAG* (0 to 5)	Instructional program grouping at the 3-digit aggregate level
CIPCRAG* (0 to 5)	Instructional course grouping at the 3-digit aggregate level

As well, several derived variables were produced based on Labour Force Survey variables.

Labour Force Survey Variables	Description
DWELL and CDWELL	Type of dwelling
GPSP	Type of industry
OCCWB	Type of occupation
OCCWB2	Type of occupation 2
PPEMP	Type of employee
PRESCH and CPRESCH	Number of pre-school children
GEOAGG	Type of sample design

7.6 Weighting

The principle behind estimation in a probability sample such as the LFS 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 enrolled in full-time programs at a university during the past 12 months 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.

Details of the method used to calculate these weights are presented in Chapter 11.0.

7.7 Suppression of Confidential Information

It should be noted that the Public Use microdata files (PUMF) described above differ in a number of important aspects from the survey ”master” files held by Statistics Canada. These differences are the result of actions taken to protect the anonymity of individual survey respondents. For instance, some variables are grouped at higher levels, certain variables are suppressed on the PUMF, and others have certain values locally suppressed. For example, age is grouped into categories on the PUMF in order to prevent identification of a respondent based on the knowledge of his/her exact age. Another example is hourly earnings; since this variable can take many different values, knowing the exact hourly earnings of an individual in conjunction with other characteristics might lead to spontaneous recognition. Therefore, the hourly earnings variable was not included on the PUMF. A final example is the country of birth variable. A respondent having a different country of birth than other respondents, but residing in the same geographical area, could become highly visible. In order to prevent this, the country of birth value for that respondent is changed to "Not stated", which minimizes the disclosure risk.

Providing a list of all the local suppressions is not possible as it would jeopardize the goal of protecting the confidentiality of respondents. However, when using the PUMF users will notice a number of groupings not found on the original questionnaire or variables appearing on the questionnaire but not found on the PUMF. Coded variables might have been grouped as well. For instance, the variable related to the Classification of Instructional Programs (CIP) has been grouped on the PUMF to ensure respondent confidentiality. The variable was regrouped to follow the major coding schemes.

Users requiring access to information excluded from the microdata files may purchase custom tabulations. Estimates generated will be released to the user, subject to meeting the guidelines for analysis and release outlined in Chapter 9.0 of this document. The survey master data file includes explicit geographic identifiers for province, economic region and census metropolitan area. It is also possible to obtain, where sample sizes permit, estimates by urban size class. The survey public use microdata files do not contain any geographic identifiers below the provincial level, except for the three largest census metropolitan areas namely Montreal, Toronto and Vancouver.

8.0 Data Quality

8.1 Response Rates

The following table summarizes the response rates to the Labour Force Survey (LFS) and to the Adult Education and Training Survey (AETS).

Province	LFS Selected Households	LFS Responding Households	LFS Response Rate*	LFS Eligible Households for the AETS Population	AETS Responding Persons	AETS Response Rate**
			%			%
Newfoundland and Labrador	1,630	1,509	92.6	1,293	940	72.7
Prince Edward Island	1,185	1,094	92.3	889	644	72.4
Nova Scotia	2,698	2,504	92.8	2,011	1,458	72.5
New Brunswick	2,418	2,221	91.9	1,811	1,303	71.9
Quebec	8,562	7,915	92.4	6,534	4,805	73.5
Ontario	12,989	12,124	93.3	9,909	7,315	73.8
Manitoba	3,264	3,126	95.8	2,411	1,834	76.1
Saskatchewan	3,320	3,135	94.4	2,383	1,858	78.0
Alberta	4,493	4,237	94.3	3,510	2,614	74.5
British Columbia	4,408	4,151	94.2	3,335	2,285	68.5
Canada	**44,967**	**42,016**	**93.4**	**34,086**	**25,056**	**73.5**

Note: The LFS counts are in terms of households while the AETS counts are in terms of selected individuals within households (only one individual is selected per household). The AETS response rate is based on eligible LFS household records. These exclude households without individuals aged 25 and over and households where no household member was selected intentionally (i.e. households with only people aged 65 and over).

* The LFS response rate is the number of LFS responding households as a percentage of the number of LFS selected households.

** The AETS response rate is the number of AETS responding persons as a percentage of the number of LFS eligible households for the AETS population.

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.

8.2.1 The Frame

Because the Adult Education and Training Survey was a supplement to the LFS, the frame used was the LFS frame. Any non-response to the LFS had an impact on the AETS frame. The quality of the sampling variables in the frame was very high. The AETS sample consisted of five rotation groups from the LFS. The criteria used for the AETS selection (like rotation group) were not missing for any LFS records.

Note that the LFS frame excludes about 2% of all households in the 10 provinces of Canada. Therefore, the AETS frame also excludes the same proportion of households in the same geographical area. It is unlikely that this exclusion introduces any significant bias into the survey data.

Some variables on the sampling frame may play a critical role with respect to the software application used in the survey. For example, in a computer-assisted telephone interview (CATI) application, each record must have an accurate province code. Moreover, it requires accurate coding of the time zone field corresponding to province and each of the telephone number fields. Such analysis of the sampling frame provides important feedback on the quality of the frame used in the survey.

8.2.2 Data Collection

Interviewer training consisted of reading the Adult Education and Training Survey Procedures Manual and Interviewer's Manual, practicing with the AETS training cases on the computer, 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. Interviewers' collected AETS information after the LFS information was collected. The collection period ran from the week of February 16th to March 14th, 2003.

8.2.3 Data Processing

Collection of the 2003 AETS was done using a computer-assisted interviewing (CAI) instrument; therefore, the quality of the data is high. Two major benefits of using a CAI instrument are ensuring the correct flow path of questions and verifying any inconsistent responses by using edits within the application.

During processing of the data, nine AETS records did not match to corresponding records in the LFS. Thus they were coded as out-of-scope and were dropped from further processing. When supplementary survey records do not match to host survey records they must be dropped since a weight cannot be derived for them.

Some records were discarded because there was key information missing. There were 14 such records and these were coded as non-response.

Data processing of the AETS was done in a number of steps including verification, coding, editing, imputation, estimation, confidentiality, etc. At each step a picture of the output files is taken and an easy verification can be made comparing files at the current and previous step. This greatly improved the data processing stage.

Program and course names were coded using the Classification of Instructional Programs system. Verification was done on 30% of the file.

An edit was done to compare the months[5] in 2002 in which the respondent took training and the duration[6] of that training activity. In those cases where the duration was more than three weeks longer than the number of months indicated, the months where increased depending on the total difference. The total number of records affected was 42.

8.2.4 Non-response

A major source of non-sampling errors in surveys is the effect of non-response on the survey results. The extent of non-response varies from partial non-response (failure to answer just one or some questions) to total non-response. Total non-response occurred because the interviewer was either unable to contact the respondent, no member of the household was able to provide the information, or the respondent refused to participate in the survey. Total non-response was handled by adjusting the weight of households who responded to the survey to compensate for those who did not respond.

In most cases, partial non-response to the survey occurred when the respondent did not understand or misinterpreted a question, refused to answer a question, or could not recall the requested information. In order to provide complete data enabling the calculation of totals for the duration of the training activities, values were imputed for duration when it was missing.

The imputation involved donors that were selected using a score function. For each record with duration non-response (also called recipient records), a comparison was done on certain characteristics between the recipient and all possible donors. When the characteristics were the same between a donor and the recipient, a value was added to the score of that donor. The donor with the highest score was deemed the “closest” donor and was chosen to fill in missing pieces of information of the non-respondent. If there was more than one donor with the highest score, a random selection occurred. The pool of donors was made up in such a way that the selected donor's value assigned to the recipient, in conjunction with other non-imputed items from the recipient would still pass the edits.

Imputation was done in two steps. First, imputation of duration for courses and second, imputation of duration for programs, as both types of activities did not make use of the same related auxiliary information. The following table shows the imputation rate for each of the steps.

[5] Months refer to question CP_Q13.
[6] Durations refers to questions CP_Q14, CP_Q15, CP_Q16, CP_Q17, CP_Q18, CP_Q19, CP_Q20 and CP_Q21.

	Step 1 Duration of Courses	Step 2 Duration of Programs
Imputed	890	117
Total	11,858	1,878
Imputation Rate (%)	7.5	6.2

The Adult Education Training Survey imputation process worked well and helped to fill incomplete responses with the experience of other respondents with similar or identical characteristics. This will add to the number of units used in any analysis performed by researchers.

Note that the public use microdata file does not contain any of the imputation flags. The impact of this is an additional layer of confidentiality.

8.2.5 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.

For example, suppose that, based upon the survey results, one estimates that 20.2% of adults aged 25 to 64 took employer sponsored training and that this estimate is found to have a standard error of 0.00368.Then the coefficient of variation of the estimate is calculated as:

$$\left(\frac{0.00368}{0.202} \right) X\ 100\ \% = 1.8\%$$

There is more information on the calculation of coefficient of variation in Chapter 10.0.

9.0 Guidelines for Tabulation, Analysis and Release

This chapter of the documentation outlines the guidelines to be adhered to by users tabulating, analyzing, 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 Adult Education and Training Survey (AETS) 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 Definitions of Types of Estimates: Categorical and Quantitative

Before discussing how the Adult Education and Training Survey data can be tabulated and analyzed, it is useful to describe the two main types of point estimates of population characteristics which can be generated from the microdata file for the AETS.

9.3.1 Categorical Estimates

Categorical estimates are estimates of the number, or percentage of the surveyed population possessing certain characteristics or falling into some defined category. The number of adults who received employer sponsored training or the proportion of adults receiving training who took that training full-time are examples of such estimates. An estimate of the number of persons possessing a certain characteristic may also be referred to as an estimate of an aggregate.

Examples of Categorical Questions:

Q: In 2002, apart from this/these program(s) did you take any courses, workshops, seminars or training related to a current or future job?
R: Yes / No

Q: In 2002, were any of the following used to teach this program/course?
R: Classroom instruction / Internet / Computers or software / Other

9.3.2 Quantitative Estimates

Quantitative estimates are estimates of totals or of means, medians and other measures of central tendency of quantities based upon some or all of the members of the surveyed population. They also specifically involve estimates of the form $\hat{X} / \hat{Y}$ where $\hat{X}$ is an estimate of surveyed population quantity total and $\hat{Y}$ is an estimate of the number of persons in the surveyed population contributing to that total quantity.

An example of a quantitative estimate is the average number of courses taken by adults who received employer sponsored training. The numerator is an estimate of the total number of courses taken by adults who received employer sponsored training and its denominator is the number of adults who received employer sponsored training.

Examples of Quantitative Questions:

Q: In 2002, how many days in total did you spend in this course?
R: |_|_|_| days

Q: On average, how many hours per day was that?
R: |_|_| hours

9.3.3 Tabulation of Categorical Estimates

Estimates of the number of people with a certain characteristic can be obtained from the microdata file by summing the final weights of all records possessing the characteristic(s) of interest. Proportions and ratios of the form $\hat{X} / \hat{Y}$ are obtained by:

a) summing the final weights of records having the characteristic of interest for the numerator $\left(\hat{X}\right)$,

b) summing the final weights of records having the characteristic of interest for the denominator $\left(\hat{Y}\right)$, then

c) dividing estimate a) by estimate b) $\left(\hat{X} / \hat{Y}\right)$.

9.3.4 Tabulation of Quantitative Estimates

Estimates of quantities can be obtained from the microdata file by multiplying the value of the variable of interest by the final weight for each record, then summing this quantity over all records of interest. For example, using the TRAINING file, to obtain an estimate of the total number of hours of training activities that were taken through regular mail multiply the value reported in the derived variable TAHRJR0 (number of training hours for the selected activity) by the final weight for the record, then sum this value over all records with CP_Q11B = 1 (the activity has been taken through regular mail).

To obtain a weighted average of the form $\hat{X} / \hat{Y}$, the numerator $\left(\hat{X}\right)$ is calculated as for a quantitative estimate and the denominator $\left(\hat{Y}\right)$ is calculated as for a categorical estimate. For example, to estimate the average number of hours of training activities that were taken through regular mail,

a) estimate the total number of hours of training activities that were taken through regular mail $\left(\hat{X}\right)$ as described above,

b) estimate the number of activities $\left(\hat{Y}\right)$ in this category by summing the final weights of all records with CP_Q11B = 1, then

c) divide estimate a) by estimate b) $\left(\hat{X} / \hat{Y}\right)$.

9.4 Guidelines for Statistical Analysis

The Adult Education and Training Survey 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 may 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 = men;
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 = men;
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.

9.5 Coefficient of Variation Release Guidelines

Before releasing and/or publishing any estimate from the Adult Education and Training Survey, 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	Estimates have a sample size of 30 or more, and low coefficients of variation in the range of 0.0% to 16.5%. No warning is required.
2) Marginal	Estimates have a sample size of 30 or more, and high coefficients of variation in the range of 16.6% to 33.3%. 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.
3) Unacceptable	Estimates have a sample size of less than 30, or very high coefficients of variation in excess of 33.3%. 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: "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."

9.6 Release Cut-off's for the Adult Education and Training Survey

The following table provides an indication of the precision of population estimates as it shows the release cut-offs associated with each of the three quality levels presented in the previous section. These cut-offs are derived from the coefficient of variation (CV) tables discussed in Chapter 10.0.

For example, the table shows that the quality of a weighted estimate of 5,000 people possessing a given characteristic in Newfoundland and Labrador is marginal.

Note that these cut-offs apply to estimates of population totals only. To estimate ratios, users should not use the numerator value (nor the denominator) in order to find the corresponding quality level. Rule 4 in Section 10.1 and Example 4 in Section 10.1.1 explains the correct procedure to be used for ratios.

Much of the data collected for the AETS is related to person level information such as participation rates or the importance of training and education to individuals. The AETS also collects information pertaining to the characteristics of the programs and courses taken. Even though these data are collected from sampled persons, the data more appropriately reflects "activities" (i.e. programs and courses) such as the number of training activities aimed at basic reading, writing or math skills. To enable users to better disseminate and analyze the data contained on the microdata files, two sets of release cut-off tables are provided, one for the "Person level data" and the second for the "Activity level data"

Person level data

Province and Region	Acceptable CV 0.0% – 16.5%	Marginal CV 16.6% – 33.3%	Unacceptable CV > 33.3%
Newfoundland and Labrador	19,000 & over	5,000 to < 19,000	under 5,000
Prince Edward Island	7,000 & over	2,000 to < 7,000	under 2,000
Nova Scotia	23,500 & over	6,000 to < 23,500	under 6,000
New Brunswick	18,000 & over	4,500 to < 18,000	under 4,500
Quebec	82,000 & over	20,500 to < 82,000	under 20,500
Ontario	85,000 & over	21,000 to < 85,000	under 21,000
Manitoba	20,500 & over	5,000 to < 20,500	under 5,000
Saskatchewan	15,500 & over	4,000 to < 15,500	under 4,000
Alberta	48,000 & over	12,000 to < 48,000	under 12,000
British Columbia	64,500 & over	16,000 to < 64,500	under 16,000
Atlantic Provinces	20,000 & over	5,000 to < 20,000	under 5,000
Prairie Provinces	34,500 & over	8,500 to < 34,500	under 8,500
Canada	**67,000 & over**	**16,500 to < 67,000**	**under 16,500**

Activity level data

Province and Region	Acceptable CV 0.0% – 16.5%	Marginal CV 16.6% – 33.3%	Unacceptable CV > 33.3%
Newfoundland and Labrador	41,500 & over	13,000 to < 41,500	under 13,000
Prince Edward Island	11,500 & over	3,500 to < 11,500	under 3,500
Nova Scotia	55,000 & over	15,500 to < 55,000	under 15,500
New Brunswick	35,500 & over	10,000 to < 35,500	under 10,000
Quebec	184,000 & over	48,500 to < 184,000	under 48,500
Ontario	221,500 & over	56,500 to < 221,500	under 56,500
Manitoba	51,000 & over	14,000 to < 51,000	under 14,000
Saskatchewan	40,000 & over	10,500 to < 40,000	under 10,500
Alberta	106,500 & over	28,000 to < 106,500	under 28,000
British Columbia	195,500 & over	53,000 to < 195,500	under 53,000
Atlantic Provinces	51,000 & over	13,500 to < 51,000	under 13,500
Prairie Provinces	87,000 & over	22,000 to < 87,000	under 22,000
Canada	**186,000 & over**	**46,500 to < 186,000**	**under 46,500**

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 sample sizes and population counts by province which were used to produce the Approximate Sampling Variability Tables for the Adult Education and Training Survey (AETS).

Person level data

Province and Region	Design Effect	Sample Size	Population
Newfoundland and Labrador	1.39	940	365,139
Prince Edward Island	1.42	644	92,581
Nova Scotia	1.54	1,458	634,750
New Brunswick	1.31	1,303	510,873
Quebec	2.14	4,805	5,108,550
Ontario	2.10	7,315	8,135,023
Manitoba	1.48	1,834	715,577
Saskatchewan	1.31	1,858	617,783
Alberta	1.75	2,614	1,992,324
British Columbia	1.47	2,285	2,802,188
Atlantic Provinces	1.50	4,345	1,603,343
Prairie Provinces	1.79	6,306	3,325,684
Canada	**2.19**	**25,056**	**20,974,788**

Activity level data

Province and Region	Design Effect	Sample Size	Activities
Newfoundland and Labrador	2.09	208	153,622
Prince Edward Island	1.77	162	39,769
Nova Scotia	2.23	405	328,207
New Brunswick	1.76	335	219,880
Quebec	3.42	1,199	1,942,200
Ontario	3.15	2,181	4,394,697
Manitoba	2.27	595	416,193
Saskatchewan	2.05	568	340,230
Alberta	2.42	837	1,108,143
British Columbia	2.94	754	1,558,769
Atlantic Provinces	2.24	1,110	741,478
Prairie Provinces	2.66	2,000	1,864,566
Canada	**3.56**	**7,244**	**10,501,710**

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 How to Use the Coefficient of Variation Tables for Categorical Estimates

The following rules should enable the user to determine the approximate coefficients of variation from the Approximate 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.

Users also have the option of using an automated method to calculate the CVs for their estimates. An HTML based person level application and activity level application have been developed to help users. These small applications are HTML files which run on any computers using Internet Explorer and will retrieve the approximate CV electronically. Note that the CVs obtained with this method are also approximate and not official. The CVs obtained using the Approximate Sampling Variability Tables and those obtained using the automated method may not always match exactly because when locating the numerator of the percentage in the approximate CV tables (first column), or the percentage across the top of the table, if the exact values are not in the table the user must find the closest values and find the CV for those values. In the automated method, the percentage and the exact value of the population are used in the formula.

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

The coefficient of variation depends only on the size of the estimate itself. On the Approximate 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.

If using the automated method for calculating the CV the user must enter the estimated number of people possessing the characteristic. Next the user selects the geographic region to which the estimate applies and clicks the “Calculate CV” button. The approximate CV for the estimate will be displayed in the bottom portion of the window.

Rule 2: Estimates of Proportions or Percentages of Persons 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 adults who received full-time employer sponsored training is more reliable than the estimated number of adults who received full-time employer sponsored training. (Note that in the tables the coefficients of variation 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 a particular sex or age group), reference should be made to that proportion or percentage (across the top of the 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.

If using the automated method, follow the same instructions as in Rule 1 and also fill in the percentage related to the sub-population of interest.

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 $\left(\hat{d} = \hat{X}_1 - \hat{X}_2\right)$ is:

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

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.

If using the automated method, obtain the CVs as in Rule 1 and then insert the values into the formula above.

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 adults who received employer sponsored training and the numerator is the number of adults who received full-time employer sponsored training.

In the case where the numerator is not a subset of the denominator, as for example, the ratio of the number of adults who received full-time employer sponsored training as compared to the number of adults who received part-time employer sponsored training, the standard error 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 $\hat{R}$. That is, the standard error of a ratio $\left(\hat{R} = \hat{X}_1 / \hat{X}_2\right)$ 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 $\hat{R}$ 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.

If using the automated method, the CVs can be obtained as in Rule 1 and then the values inserted into the formula above.

Rule 5: Estimates of Differences of Ratios

In this case, Rules 3 and 4 are combined. The CVs 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 Coefficient of Variation Tables for Categorical Estimates

The following examples based on the Adult Education and Training Survey are included to assist users in applying the foregoing rules.

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

Suppose that a user estimates that 3,484,578 adults aged 25 to 64 received employer sponsored training in 2002. How does the user determine the coefficient of variation of this estimate?

1) Refer to the coefficient of variation table for CANADA - Person level data.

2) The estimated aggregate (3,484,578) 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 3,000,000.

3) The coefficient of variation for an estimated aggregate is found by referring to the first non-asterisk entry on that row, namely, 2.3%.

4) So, the approximate coefficient of variation of the estimate is 2.3%. The finding that there were 3,484,578 (to be rounded according to the rounding guidelines in Section

9.1) adults aged 25 to 64 who received employer sponsored training in 2002 is publishable with no qualifications.

If using the automated method for calculating the CV, how does the user determine the coefficient of variation of this estimate?

1) Open the person level CV calculator.

2) Enter the number 3,484,578 in the Numerator of percentage field (exclude commas).

3) Select Canada.

4) Click on the "Calculate CV" button. The approximate CV for the numerator is 2.1%. The finding that there were 3,484,578 (to be rounded according to the rounding guidelines in Section 9.1) adults aged 25 to 64 who received employer sponsored training in 2002 is publishable with no qualifications.

See Section 10.1 for an explanation on why the CV from the table does not match exactly the CV calculated from the automated method.

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

Suppose that a user estimates that 3,034,741 activities lead to a certification or a license in 2002. How does the user determine the coefficient of variation of this estimate?

1) Refer to the coefficient of variation table for CANADA - Activity level data.

2) The estimated aggregate (3,034,741) 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 3,000,000.

3) The coefficient of variation for an estimated aggregate is found by referring to the first non-asterisk entry on that row, namely, 3.5%.

4) So the approximate coefficient of variation of the estimate is 3.5%. The finding that there were 3,034,741 (to be rounded according to the rounding guidelines in Section 9.1) activities that lead to a certification or a license in 2002 is publishable with no qualifications.

If using the automated method for calculating the CV, how does the user determine the coefficient of variation of this estimate?

1) Open the activity level CV calculator.

2) Enter the number 3,034,741 in the Numerator of percentage field (exclude commas).

3) Select Canada.

4) Click on the "Calculate CV" button. The approximate CV for the numerator is 3.5%. The finding that there were 3,034,741 (to be rounded according to the rounding guidelines in Section 9.1) activities that lead to a certification or a license in 2002 is publishable with no qualifications.

Example 2A: Estimates of Proportions or Percentages of Persons Possessing a Characteristic

Suppose that the user estimates that 671,323 / 3,484,578 = 19.3% of adults aged 25 to 64 who received employer sponsored training in 2002, took at least one educational program. How does the user determine the coefficient of variation of this estimate?

1) Refer to the coefficient of variation table for CANADA - Person level data.

2) Because the estimate is a percentage which is based on a subset of the total population (i.e., adults aged 25 to 64 who received employer sponsored training in 2002), it is necessary to use both the percentage (19.3%) and the numerator portion of the percentage (671,323) in determining the coefficient of variation.

3) The numerator, 671,323, 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 750,000. Similarly, the percentage estimate does not appear as any of the column headings, so it is necessary to use the percentage closest to it, 20.0%.

4) The figure at the intersection of the row and column used, namely 4.4% is the coefficient of variation to be used.

5) Therefore, the approximate coefficient of variation of the estimate is 4.4%. The finding that 19.3% of adults aged 25 to 64 who received employer sponsored training in 2002 took at least one educational program can be published with no qualifications.

If using the automated method for calculating the CV, how does the user determine the coefficient of variation of this estimate?

1) Open the person level CV calculator.

2) Enter the number 671,323 in the Numerator of percentage field (exclude commas).

3) Enter 19.3 in the Percentage field.

4) Select Canada.

5) Click on the "Calculate CV" button. The approximate CV for the percentage is 4.7% and the approximate CV for the numerator is 5.1%. The finding that 19.3% of adults aged 25 to 64 who received employer sponsored training in 2002 took at least one educational program can be published with no qualifications.

Example 2B: Estimates of Proportions or Percentages of Activities Possessing a Characteristic

Suppose that the user estimates that 2,385,919 / 3,034,741 = 78.6% of activities leading to a certification or a license in 2002 were employer sponsored. How does the user determine the coefficient of variation of this estimate?

1) Refer to the coefficient of variation table for CANADA - Activity level data.

2) Because the estimate is a percentage which is based on a subset of the total number of activities (i.e., activities leading to a certification or a license in 2002), it is necessary to use both the percentage (78.6%) and the numerator portion of the percentage (2,385,919) in determining the coefficient of variation.

3) The numerator, 2,385,919, 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 2,000,000. Similarly, the percentage estimate does not appear as any of the column headings, so it is necessary to use the percentage closest to it, 70.0%.

4) The figure at the intersection of the row and column used, namely 2.8% is the coefficient of variation to be used.

5) Therefore, the approximate coefficient of variation of the estimate is 2.8%. The finding that 78.6% of activities leading to a certification or a license in 2002 were employer sponsored can be published with no qualifications.

If using the automated method for calculating the CV, how does the user determine the coefficient of variation of this estimate?

1) Open the activity level CV calculator.

2) Enter the number 2,385,919 in the Numerator of percentage field (exclude commas).

3) Enter 78.6 in the Percentage field.

4) Select Canada.

5) Click on the "Calculate CV" button. The approximate CV for the percentage is 2.2% and the approximate CV for the numerator is 4.1%. The finding that 78.6% of activities leading to a certification or a license in 2002 were employer sponsored can be published with no qualifications.

Example 3: Estimates of Differences Between Aggregates or Percentages

Suppose that a user estimates that 671,323 / 3,484,578 = 19.3% of adults aged 25 to 64 who received employer sponsored training in 2002, took at least one educational program, while 748,126 / 1,695,383 = 44.1% of adults aged 25 to 64 who received non-employer sponsored training in 2002, took at least one educational program. How does the user determine the coefficient of variation of the difference between these two estimates?

1) Using the CANADA - Person level data coefficient of variation table in the same manner as described in Example 2 gives the CV of the estimate for people receiving employer sponsored training as 4.4%, and the CV of the estimate for people receiving non-employer sponsored training as 3.8%. Note that these CVs can be calculated with the automated method as well.

2) Using Rule 3, the standard error of a difference $\left(\hat{d} = \hat{X}_1 - \hat{X}_2\right)$ is:

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

where $\hat{X}_1$ is estimate 1 (employer sponsored), $\hat{X}_2$ is estimate 2 (non-employer sponsored), and α_1 and α_2 are the coefficients of variation of $\hat{X}_1$ and $\hat{X}_2$ respectively.

That is, the standard error of the difference $\hat{d}$ = 0.193 - 0.441 = -0.248 is:

$$\begin{aligned}\sigma_{\hat{d}} &= \sqrt{[(0.193)(0.044)]^2 + [(0.441)(0.038)]^2} \\ &= \sqrt{(0.000072) + (0.000281)} \\ &= 0.019\end{aligned}$$

3) The coefficient of variation of $\hat{d}$ is given by $\sigma_{\hat{d}} / \hat{d}$ = 0.019 / 0.248 = 0.077.

4) So the approximate coefficient of variation of the difference between the estimates is 7.7%. This estimate can be published with no qualifications.

Example 4: Estimates of Ratios

Suppose that the user estimates that 1,750,715 women aged 25 to 64 took employer sponsored training while 1,733,863 men aged 25 to 64 took employer sponsored training. The user is interested in comparing the estimate of women versus that of men 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 ($\hat{X}_1$) is the number of women aged 25 to 64 who took employer sponsored training. The denominator of the estimate ($\hat{X}_2$) is the number of men aged 25 to 64 who took employer sponsored training.

2) Refer to the coefficient of variation table for CANADA - Person level data.

3) The numerator of this ratio estimate is 1,750,715. The figure closest to it is 2,000,000. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row, namely, 2.9%.

4) The denominator of this ratio estimate is 1,733,863. The figure closest to it is 1,500,000. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row, namely, 3.3%.

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 $\hat{X}_1$ and $\hat{X}_2$ respectively.

That is:

$$\begin{aligned}\alpha_{\hat{R}} &= \sqrt{(0.029)^2 + (0.033)^2} \\ &= \sqrt{0.000841 + 0.001089} \\ &= 0.044\end{aligned}$$

6) The obtained ratio of women versus men aged 25 to 64 who received employer sponsored training is 1,750,715 / 1,733,863 which is 1.01:1 (to be rounded according

to the rounding guidelines in Section 9.1). The coefficient of variation of this estimate is 4.4%, which is releasable with no qualifications.

Example 5: Estimates of Differences of Ratios

Suppose that the user estimates that the ratio of women versus men aged 25 to 64 who received employer sponsored training is 1.30:1 for Nova Scotia while it is 1.06:1 for Manitoba. The user is interested in comparing the two ratios to see if there is a statistical difference between them. How does the user determine the coefficient of variation of the difference?

1) First calculate the approximate coefficient of variation for the Nova Scotia ratio $\left(\hat{R}_1\right)$ and the Manitoba ratio $\left(\hat{R}_2\right)$ as in Example 4. The approximate CV for the Nova Scotia ratio is 14.5% and 12.4% for Manitoba.

2) Using Rule 3, the standard error of a difference $\left(\hat{d} = \hat{R}_1 - \hat{R}_2\right)$ is:

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

where α_1 and α_2 are the coefficients of variation of $\hat{R}_1$ and $\hat{R}_2$ respectively. That is, the standard error of the difference $\hat{d}$ = 1.30 - 1.06 = 0.24 is:

$$\begin{aligned}\sigma_{\hat{d}} &= \sqrt{[(1.30)(0.145)]^2 + [(1.06)(0.124)]^2} \\ &= \sqrt{(0.0355) + (0.0173)} \\ &= 0.230\end{aligned}$$

3) The coefficient of variation of $\hat{d}$ is given by $\sigma_{\hat{d}} / \hat{d}$ = 0.230 / 0.24 = 0.958.

4) So the approximate coefficient of variation of the difference between the estimates is 95.8%. This estimate is considered unacceptable and Statistics Canada recommends this estimate not be released. However, should the user choose to do so, the estimate should be flagged with the letter U (or some similar identifier) and be accompanied by a warning to caution subsequent users about the high levels of error, associated with the estimate.

10.2 How to Use the Coefficient of Variation 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 difference 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 $\left(\hat{X} - k, \hat{X} + k\right)$ 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 $\left(CI_{\hat{x}}\right)$:

$$CI_{\hat{x}} = \left(\hat{X} - t\hat{X}\alpha_{\hat{x}}, \hat{X} + t\hat{X}\alpha_{\hat{x}}\right)$$

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 = 2.6 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 Coefficient of Variation Tables to Obtain Confidence Limits

A 95% confidence interval for the estimated proportion of adults aged 25 to 64 who received employer sponsored training in 2002, and who took at least one educational program (from Example 2A, Section 10.1.1) would be calculated as follows:

$\hat{X}$ = 19.3% (or expressed as a proportion 0.193)

t = 2

$\alpha_{\hat{x}}$ = 4.4% (0.044 expressed as a proportion) is the coefficient of variation of this estimate as determined from the tables.

$CI_{\hat{x}}$ = {0.193 - (2) (0.193) (0.044), 0.193 + (2) (0.193) (0.044)}

$CI_{\hat{x}}$ = {0.193 - 0.017, 0.193 + 0.017}

$CI_{\hat{x}}$ = {0.176, 0.210}

With 95% confidence it can be said that between 17.6% and 21.0% of adults aged 25 to 64 who received employer-sponsored training in 2002, took at least one educational program.

10.3 How to Use the Coefficient of Variation 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 $\hat{X}_1$ and $\hat{X}_2$ be sample estimates for two characteristics of interest. Let the standard error on the difference $\hat{X}_1$ - $\hat{X}_2$ be $\sigma_{\hat{d}}$.

If $t = \dfrac{\hat{X}_1 - \hat{X}_2}{\sigma_{\hat{d}}}$

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 difference between the estimates is significant.

10.3.1 Example of Using the Coefficient of Variation Tables to Do a T-test

Let us suppose that the user wishes to test, at 5% level of significance, the hypothesis that there is no difference between the proportion of adults aged 25 to 64 who received employer sponsored training in 2002 and took at least one educational program, and adults aged 25 to 64 who received non-employer sponsored training in 2002 and took at least one educational program. From Example 3, Section 10.1.1, the standard error of the difference between these two estimates was found to be 0.019. Hence,

$$t = \frac{\hat{X}_1 - \hat{X}_2}{\sigma_{\hat{d}}} = \frac{0.193 - 0.441}{0.019} = \frac{-0.248}{0.019} = -13.1$$

Since t = -13.1 is less 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 Coefficients of Variation for Quantitative Estimates

For quantitative estimates, special tables would have to be produced to determine their sampling error. Since most of the variables for the Adult Education and Training Survey are primarily categorical in nature, this has not been done.

As a general rule, however, the coefficient of variation of a quantitative total will be larger than the coefficient of variation of the corresponding category estimate (i.e., the estimate of the number of persons contributing to the quantitative estimate). If the corresponding category estimate is not releasable, the quantitative estimate will not be either. For example, the coefficient of variation of the total number of hours of training activities for men would be greater than the coefficient of variation of the corresponding proportion of men who took training activities. Hence, if the coefficient of variation of the proportion is not releasable, then the coefficient of variation of the corresponding quantitative estimate will also not be releasable.

Coefficients of variation of such estimates can be derived as required for a specific estimate using a technique known as pseudo replication. This involves dividing the records on the microdata files into subgroups (or replicates) and determining the variation in the estimate from replicate to replicate. Users wishing to derive coefficients of variation for quantitative estimates may contact Statistics Canada for advice on the allocation of records to appropriate replicates and the formulae to be used in these calculations.

10.5 Coefficient of Variation Tables

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Newfoundland and Labrador - Person level data

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	********	73.0	72.6	71.5	69.6	67.7	65.6	63.6	61.4	59.2	56.8	51.9	40.2	23.2
2	********	51.6	51.4	50.6	49.2	47.8	46.4	44.9	43.4	41.8	40.2	36.7	28.4	16.4
3	********	42.2	41.9	41.3	40.2	39.1	37.9	36.7	35.4	34.2	32.8	30.0	23.2	13.4
4	**********	36.3	35.8	34.8	33.8	32.8	31.8	30.7	29.6	28.4	25.9	20.1	11.6	
5	**********	32.5	32.0	31.1	30.3	29.4	28.4	27.5	26.5	25.4	23.2	18.0	10.4	
6	**********	29.7	29.2	28.4	27.6	26.8	25.9	25.1	24.2	23.2	21.2	16.4	9.5	
7	**********	27.5	27.0	26.3	25.6	24.8	24.0	23.2	22.4	21.5	19.6	15.2	8.8	
8	**********	25.3	24.6	23.9	23.2	22.5	21.7	20.9	20.1	18.3	14.2	8.2		
9	**********	23.8	23.2	22.6	21.9	21.2	20.5	19.7	18.9	17.3	13.4	7.7		
10	**********	22.6	22.0	21.4	20.8	20.1	19.4	18.7	18.0	16.4	12.7	7.3		
11	**********	21.6	21.0	20.4	19.8	19.2	18.5	17.8	17.1	15.6	12.1	7.0		
12	**********	20.6	20.1	19.5	18.9	18.3	17.7	17.1	16.4	15.0	11.6	6.7		
13	**********	19.8	19.3	18.8	18.2	17.6	17.0	16.4	15.8	14.4	11.1	6.4		
14	**********	19.1	18.6	18.1	17.5	17.0	16.4	15.8	15.2	13.9	10.7	6.2		
15	**********	18.5	18.0	17.5	16.9	16.4	15.9	15.3	14.7	13.4	10.4	6.0		
16	**********	17.9	17.4	16.9	16.4	15.9	15.3	14.8	14.2	13.0	10.0	5.8		
17	**********	17.3	16.9	16.4	15.9	15.4	14.9	14.3	13.8	12.6	9.7	5.6		
18	**********	16.9	16.4	15.9	15.5	15.0	14.5	13.9	13.4	12.2	9.5	5.5		
19	**********	16.0	15.5	15.1	14.6	14.1	13.6	13.0	11.9	9.2	5.3			
20	**********	15.6	15.1	14.7	14.2	13.7	13.2	12.7	11.6	9.0	5.2			
21	**********	15.2	14.8	14.3	13.9	13.4	12.9	12.4	11.3	8.8	5.1			
22	**********	14.8	14.4	14.0	13.5	13.1	12.6	12.1	11.1	8.6	4.9			
23	**********	14.5	14.1	13.7	13.3	12.8	12.3	11.9	10.8	8.4	4.8			
24	**********	14.2	13.8	13.4	13.0	12.5	12.1	11.6	10.6	8.2	4.7			
25	**********	13.9	13.5	13.1	12.7	12.3	11.8	11.4	10.4	8.0	4.6			
30	**********	12.7	12.4	12.0	11.6	11.2	10.8	10.4	9.5	7.3	4.2			
35	**********	11.8	11.4	11.1	10.7	10.4	10.0	9.6	8.8	6.8	3.9			
40	**********	10.7	10.4	10.0	9.7	9.4	9.0	8.2	6.4	3.7				
45	**********	10.1	9.8	9.5	9.2	8.8	8.5	7.7	6.0	3.5				
50	**********	9.6	9.3	9.0	8.7	8.4	8.0	7.3	5.7	3.3				
55	**********	8.9	8.6	8.3	8.0	7.7	7.0	5.4	3.1					
60	**********	8.5	8.2	7.9	7.6	7.3	6.7	5.2	3.0					
65	**********	8.1	7.9	7.6	7.3	7.1	6.4	5.0	2.9					
70	**********	7.8	7.6	7.3	7.1	6.8	6.2	4.8	2.8					
75	**********	7.3	7.1	6.8	6.6	6.0	4.6	2.7						
80	**********	7.1	6.9	6.6	6.4	5.8	4.5	2.6						
85	**********	6.9	6.7	6.4	6.2	5.6	4.4	2.5						
90	**********	6.7	6.5	6.2	6.0	5.5	4.2	2.4						
95	**********	6.3	6.1	5.8	5.3	4.1	2.4							
100	**********	6.1	5.9	5.7	5.2	4.0	2.3							
125	**********	5.3	5.1	4.6	3.6	2.1								
150	**********	4.2	3.3	1.9										
200	**********	2.8	1.6											
250	**********	2.5	1.5											
300	**********	1.3												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Prince Edward Island - Person level data

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	**********	**********	44.6	43.9	42.7	41.5	40.3	39.0	37.7	36.3	34.9	31.8	24.7	14.2
2	**********	**********	31.0	30.2	29.4	28.5	27.6	26.6	25.7	24.7	22.5	17.4	10.1	
3	**********	**********	25.3	24.7	24.0	23.3	22.5	21.7	21.0	20.1	18.4	14.2	8.2	
4	**********	**********	21.9	21.4	20.8	20.1	19.5	18.8	18.1	17.4	15.9	12.3	7.1	
5	**********	**********	19.1	18.6	18.0	17.4	16.8	16.2	15.6	14.2	11.0	6.4		
6	**********	**********	17.4	16.9	16.4	15.9	15.4	14.8	14.2	13.0	10.1	5.8		
7	**********	**********	16.1	15.7	15.2	14.7	14.2	13.7	13.2	12.0	9.3	5.4		
8	**********	**********	15.1	14.7	14.2	13.8	13.3	12.8	12.3	11.3	8.7	5.0		
9	**********	**********	14.2	13.8	13.4	13.0	12.6	12.1	11.6	10.6	8.2	4.7		
10	**********	**********	13.1	12.7	12.3	11.9	11.5	11.0	10.1	7.8	4.5			
11	**********	**********	12.5	12.1	11.8	11.4	10.9	10.5	9.6	7.4	4.3			
12	**********	**********	12.0	11.6	11.3	10.9	10.5	10.1	9.2	7.1	4.1			
13	**********	**********	11.5	11.2	10.8	10.4	10.1	9.7	8.8	6.8	3.9			
14	**********	**********	10.8	10.4	10.1	9.7	9.3	8.5	6.6	3.8				
15	**********	**********	10.4	10.1	9.7	9.4	9.0	8.2	6.4	3.7				
16	**********	**********	10.1	9.7	9.4	9.1	8.7	8.0	6.2	3.6				
17	**********	**********	9.8	9.5	9.1	8.8	8.5	7.7	6.0	3.5				
18	**********	**********	9.5	9.2	8.9	8.6	8.2	7.5	5.8	3.4				
19	**********	**********	8.9	8.6	8.3	8.0	7.3	5.7	3.3					
20	**********	**********	8.7	8.4	8.1	7.8	7.1	5.5	3.2					
21	**********	**********	8.5	8.2	7.9	7.6	6.9	5.4	3.1					
22	**********	**********	8.3	8.0	7.7	7.4	6.8	5.3	3.0					
23	**********	**********	8.1	7.9	7.6	7.3	6.6	5.1	3.0					
24	**********	**********	7.7	7.4	7.1	6.5	5.0	2.9						
25	**********	**********	7.5	7.3	7.0	6.4	4.9	2.8						
30	**********	**********	6.6	6.4	5.8	4.5	2.6							
35	**********	**********	5.9	5.4	4.2	2.4								
40	**********	**********	5.0	3.9	2.3									
45	**********	**********	4.7	3.7	2.1									
50	**********	**********	3.5	2.0										
55	**********	**********	3.3	1.9										
60	**********	**********	3.2	1.8										
65	**********	**********	1.8											
70	**********	**********	1.7											
75	**********	**********	1.6											
80	**********	**********	1.6											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Nova Scotia - Person level data

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	********	81.4	81.0	79.7	77.6	75.4	73.2	70.8	68.4	65.9	63.4	57.8	44.8	25.9
2	********	57.5	57.3	56.4	54.9	53.3	51.7	50.1	48.4	46.6	44.8	40.9	31.7	18.3
3	********	47.0	46.7	46.0	44.8	43.5	42.2	40.9	39.5	38.1	36.6	33.4	25.9	14.9
4	********	40.7	40.5	39.9	38.8	37.7	36.6	35.4	34.2	33.0	31.7	28.9	22.4	12.9
5	********	36.4	36.2	35.7	34.7	33.7	32.7	31.7	30.6	29.5	28.3	25.9	20.0	11.6
6	********	33.2	33.1	32.5	31.7	30.8	29.9	28.9	27.9	26.9	25.9	23.6	18.3	10.6
7	**********		30.6	30.1	29.3	28.5	27.6	26.8	25.9	24.9	23.9	21.9	16.9	9.8
8	**********		28.6	28.2	27.4	26.7	25.9	25.0	24.2	23.3	22.4	20.4	15.8	9.1
9	**********		27.0	26.6	25.9	25.1	24.4	23.6	22.8	22.0	21.1	19.3	14.9	8.6
10	**********		25.6	25.2	24.5	23.8	23.1	22.4	21.6	20.9	20.0	18.3	14.2	8.2
11	**********		24.4	24.0	23.4	22.7	22.1	21.4	20.6	19.9	19.1	17.4	13.5	7.8
12	**********		23.4	23.0	22.4	21.8	21.1	20.4	19.8	19.0	18.3	16.7	12.9	7.5
13	**********		22.1	21.5	20.9	20.3	19.6	19.0	18.3	17.6	16.0	12.4	7.2	
14	**********		21.3	20.7	20.2	19.6	18.9	18.3	17.6	16.9	15.5	12.0	6.9	
15	**********		20.6	20.0	19.5	18.9	18.3	17.7	17.0	16.4	14.9	11.6	6.7	
16	**********		19.9	19.4	18.9	18.3	17.7	17.1	16.5	15.8	14.5	11.2	6.5	
17	**********		19.3	18.8	18.3	17.7	17.2	16.6	16.0	15.4	14.0	10.9	6.3	
18	**********		18.8	18.3	17.8	17.2	16.7	16.1	15.5	14.9	13.6	10.6	6.1	
19	**********		18.3	17.8	17.3	16.8	16.2	15.7	15.1	14.5	13.3	10.3	5.9	
20	**********		17.8	17.3	16.9	16.4	15.8	15.3	14.7	14.2	12.9	10.0	5.8	
21	**********		17.4	16.9	16.5	16.0	15.5	14.9	14.4	13.8	12.6	9.8	5.6	
22	**********		17.0	16.5	16.1	15.6	15.1	14.6	14.1	13.5	12.3	9.6	5.5	
23	**********		16.6	16.2	15.7	15.3	14.8	14.3	13.7	13.2	12.1	9.3	5.4	
24	**********		16.3	15.8	15.4	14.9	14.5	14.0	13.5	12.9	11.8	9.1	5.3	
25	**********		15.9	15.5	15.1	14.6	14.2	13.7	13.2	12.7	11.6	9.0	5.2	
30	**********		14.6	14.2	13.8	13.4	12.9	12.5	12.0	11.6	10.6	8.2	4.7	
35	**********		13.1	12.7	12.4	12.0	11.6	11.1	10.7	9.8	7.6	4.4		
40	**********		12.3	11.9	11.6	11.2	10.8	10.4	10.0	9.1	7.1	4.1		
45	**********		11.6	11.2	10.9	10.6	10.2	9.8	9.4	8.6	6.7	3.9		
50	**********		11.0	10.7	10.3	10.0	9.7	9.3	9.0	8.2	6.3	3.7		
55	**********		10.5	10.2	9.9	9.6	9.2	8.9	8.5	7.8	6.0	3.5		
60	**********		10.0	9.7	9.4	9.1	8.8	8.5	8.2	7.5	5.8	3.3		
65	**********		9.4	9.1	8.8	8.5	8.2	7.9	7.2	5.6	3.2			
70	**********		9.0	8.7	8.5	8.2	7.9	7.6	6.9	5.4	3.1			
75	**********		8.7	8.4	8.2	7.9	7.6	7.3	6.7	5.2	3.0			
80	**********		8.4	8.2	7.9	7.7	7.4	7.1	6.5	5.0	2.9			
85	**********		8.2	7.9	7.7	7.4	7.2	6.9	6.3	4.9	2.8			
90	**********		7.9	7.7	7.5	7.2	7.0	6.7	6.1	4.7	2.7			
95	**********		7.7	7.5	7.3	7.0	6.8	6.5	5.9	4.6	2.7			
100	**********		7.3	7.1	6.8	6.6	6.3	5.8	4.5	2.6				
125	**********		6.5	6.3	6.1	5.9	5.7	5.2	4.0	2.3				
150	**********		5.8	5.6	5.4	5.2	4.7	3.7	2.1					
200	**********		4.7	4.5	4.1	3.2	1.8							
250	**********		4.0	3.7	2.8	1.6								
300	**********		3.3	2.6	1.5									
350	**********		2.4	1.4										
400	**********		2.2	1.3										
450	**********		1.2											
500	**********		1.2											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for New Brunswick - Person level data

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	********	71.2	70.9	69.8	67.9	66.0	64.0	62.0	59.9	57.7	55.4	50.6	39.2	22.6
2	********	50.4	50.1	49.3	48.0	46.7	45.3	43.8	42.3	40.8	39.2	35.8	27.7	16.0
3	********	41.1	40.9	40.3	39.2	38.1	37.0	35.8	34.6	33.3	32.0	29.2	22.6	13.1
4	********	35.6	35.4	34.9	34.0	33.0	32.0	31.0	29.9	28.9	27.7	25.3	19.6	11.3
5	********	31.8	31.7	31.2	30.4	29.5	28.6	27.7	26.8	25.8	24.8	22.6	17.5	10.1
6	**********	28.9	28.5	27.7	26.9	26.1	25.3	24.4	23.6	22.6	20.7	16.0	9.2	
7	**********	26.8	26.4	25.7	24.9	24.2	23.4	22.6	21.8	21.0	19.1	14.8	8.6	
8	**********	25.1	24.7	24.0	23.3	22.6	21.9	21.2	20.4	19.6	17.9	13.9	8.0	
9	**********	23.6	23.3	22.6	22.0	21.3	20.7	20.0	19.2	18.5	16.9	13.1	7.5	
10	**********	22.4	22.1	21.5	20.9	20.2	19.6	18.9	18.2	17.5	16.0	12.4	7.2	
11	**********	21.0	20.5	19.9	19.3	18.7	18.1	17.4	16.7	15.3	11.8	6.8		
12	**********	20.1	19.6	19.0	18.5	17.9	17.3	16.7	16.0	14.6	11.3	6.5		
13	**********	19.3	18.8	18.3	17.8	17.2	16.6	16.0	15.4	14.0	10.9	6.3		
14	**********	18.6	18.1	17.6	17.1	16.6	16.0	15.4	14.8	13.5	10.5	6.0		
15	**********	18.0	17.5	17.0	16.5	16.0	15.5	14.9	14.3	13.1	10.1	5.8		
16	**********	17.4	17.0	16.5	16.0	15.5	15.0	14.4	13.9	12.7	9.8	5.7		
17	**********	16.9	16.5	16.0	15.5	15.0	14.5	14.0	13.4	12.3	9.5	5.5		
18	**********	16.4	16.0	15.6	15.1	14.6	14.1	13.6	13.1	11.9	9.2	5.3		
19	**********	16.0	15.6	15.1	14.7	14.2	13.7	13.2	12.7	11.6	9.0	5.2		
20	**********	15.6	15.2	14.8	14.3	13.9	13.4	12.9	12.4	11.3	8.8	5.1		
21	**********	15.2	14.8	14.4	14.0	13.5	13.1	12.6	12.1	11.0	8.6	4.9		
22	**********	14.9	14.5	14.1	13.6	13.2	12.8	12.3	11.8	10.8	8.4	4.8		
23	**********	14.5	14.2	13.8	13.3	12.9	12.5	12.0	11.6	10.6	8.2	4.7		
24	**********	14.2	13.9	13.5	13.1	12.7	12.2	11.8	11.3	10.3	8.0	4.6		
25	**********	14.0	13.6	13.2	12.8	12.4	12.0	11.5	11.1	10.1	7.8	4.5		
30	**********	12.4	12.0	11.7	11.3	10.9	10.5	10.1	9.2	7.2	4.1			
35	**********	11.5	11.2	10.8	10.5	10.1	9.8	9.4	8.6	6.6	3.8			
40	**********	10.7	10.4	10.1	9.8	9.5	9.1	8.8	8.0	6.2	3.6			
45	**********	10.1	9.8	9.5	9.2	8.9	8.6	8.3	7.5	5.8	3.4			
50	**********	9.6	9.3	9.1	8.8	8.5	8.2	7.8	7.2	5.5	3.2			
55	**********	8.9	8.6	8.4	8.1	7.8	7.5	6.8	5.3	3.1				
60	**********	8.5	8.3	8.0	7.7	7.4	7.2	6.5	5.1	2.9				
65	**********	8.2	7.9	7.7	7.4	7.2	6.9	6.3	4.9	2.8				
70	**********	7.9	7.7	7.4	7.2	6.9	6.6	6.0	4.7	2.7				
75	**********	7.6	7.4	7.2	6.9	6.7	6.4	5.8	4.5	2.6				
80	**********	7.2	6.9	6.7	6.5	6.2	5.7	4.4	2.5					
85	**********	6.9	6.7	6.5	6.3	6.0	5.5	4.3	2.5					
90	**********	6.7	6.5	6.3	6.1	5.8	5.3	4.1	2.4					
95	**********	6.6	6.4	6.1	5.9	5.7	5.2	4.0	2.3					
100	**********	6.4	6.2	6.0	5.8	5.5	5.1	3.9	2.3					
125	**********	5.5	5.4	5.2	5.0	4.5	3.5	2.0						
150	**********	4.9	4.7	4.5	4.1	3.2	1.8							
200	**********	3.9	3.6	2.8	1.6									
250	**********	3.2	2.5	1.4										
300	**********	2.3	1.3											
350	**********	2.1	1.2											
400	**********	1.1												
450	**********	1.1												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Quebec - Person level data

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	150.7	150.0	149.3	146.9	143.0	139.0	134.8	130.6	126.1	121.6	116.8	106.6	82.6	47.7
2	106.6	106.1	105.5	103.9	101.1	98.3	95.4	92.3	89.2	86.0	82.6	75.4	58.4	33.7
3	87.0	86.6	86.2	84.8	82.6	80.3	77.9	75.4	72.8	70.2	67.4	61.6	47.7	27.5
4	75.3	75.0	74.6	73.5	71.5	69.5	67.4	65.3	63.1	60.8	58.4	53.3	41.3	23.8
5	67.4	67.1	66.7	65.7	64.0	62.2	60.3	58.4	56.4	54.4	52.2	47.7	36.9	21.3
6	********	61.2	60.9	60.0	58.4	56.7	55.1	53.3	51.5	49.6	47.7	43.5	33.7	19.5
7	********	56.7	56.4	55.5	54.1	52.5	51.0	49.3	47.7	45.9	44.1	40.3	31.2	18.0
8	********	53.0	52.8	52.0	50.6	49.1	47.7	46.2	44.6	43.0	41.3	37.7	29.2	16.9
9	********	50.0	49.8	49.0	47.7	46.3	44.9	43.5	42.0	40.5	38.9	35.5	27.5	15.9
10	********	47.4	47.2	46.5	45.2	44.0	42.6	41.3	39.9	38.4	36.9	33.7	26.1	15.1
11	********	45.2	45.0	44.3	43.1	41.9	40.7	39.4	38.0	36.6	35.2	32.1	24.9	14.4
12	********	43.3	43.1	42.4	41.3	40.1	38.9	37.7	36.4	35.1	33.7	30.8	23.8	13.8
13	********	41.6	41.4	40.8	39.7	38.6	37.4	36.2	35.0	33.7	32.4	29.6	22.9	13.2
14	********	40.1	39.9	39.3	38.2	37.1	36.0	34.9	33.7	32.5	31.2	28.5	22.1	12.7
15	********	38.7	38.5	37.9	36.9	35.9	34.8	33.7	32.6	31.4	30.2	27.5	21.3	12.3
16	********	37.5	37.3	36.7	35.8	34.7	33.7	32.6	31.5	30.4	29.2	26.7	20.6	11.9
17	********	36.4	36.2	35.6	34.7	33.7	32.7	31.7	30.6	29.5	28.3	25.9	20.0	11.6
18	********	35.4	35.2	34.6	33.7	32.8	31.8	30.8	29.7	28.7	27.5	25.1	19.5	11.2
19	********	34.4	34.2	33.7	32.8	31.9	30.9	30.0	28.9	27.9	26.8	24.5	18.9	10.9
20	********	33.5	33.4	32.9	32.0	31.1	30.2	29.2	28.2	27.2	26.1	23.8	18.5	10.7
21	********	32.7	32.6	32.1	31.2	30.3	29.4	28.5	27.5	26.5	25.5	23.3	18.0	10.4
22	********	32.0	31.8	31.3	30.5	29.6	28.8	27.8	26.9	25.9	24.9	22.7	17.6	10.2
23	********	31.3	31.1	30.6	29.8	29.0	28.1	27.2	26.3	25.3	24.4	22.2	17.2	9.9
24	********	30.6	30.5	30.0	29.2	28.4	27.5	26.7	25.7	24.8	23.8	21.8	16.9	9.7
25	********	30.0	29.9	29.4	28.6	27.8	27.0	26.1	25.2	24.3	23.4	21.3	16.5	9.5
30	********	27.4	27.2	26.8	26.1	25.4	24.6	23.8	23.0	22.2	21.3	19.5	15.1	8.7
35	********	25.4	25.2	24.8	24.2	23.5	22.8	22.1	21.3	20.5	19.7	18.0	14.0	8.1
40	********	23.7	23.6	23.2	22.6	22.0	21.3	20.6	19.9	19.2	18.5	16.9	13.1	7.5
45	********	22.4	22.2	21.9	21.3	20.7	20.1	19.5	18.8	18.1	17.4	15.9	12.3	7.1
50	********	21.2	21.1	20.8	20.2	19.7	19.1	18.5	17.8	17.2	16.5	15.1	11.7	6.7
55	**********		20.1	19.8	19.3	18.7	18.2	17.6	17.0	16.4	15.7	14.4	11.1	6.4
60	**********		19.3	19.0	18.5	17.9	17.4	16.9	16.3	15.7	15.1	13.8	10.7	6.2
65	**********		18.5	18.2	17.7	17.2	16.7	16.2	15.6	15.1	14.5	13.2	10.2	5.9
70	**********		17.8	17.6	17.1	16.6	16.1	15.6	15.1	14.5	14.0	12.7	9.9	5.7
75	**********		17.2	17.0	16.5	16.1	15.6	15.1	14.6	14.0	13.5	12.3	9.5	5.5
80	**********		16.7	16.4	16.0	15.5	15.1	14.6	14.1	13.6	13.1	11.9	9.2	5.3
85	**********		16.2	15.9	15.5	15.1	14.6	14.2	13.7	13.2	12.7	11.6	9.0	5.2
90	**********		15.7	15.5	15.1	14.7	14.2	13.8	13.3	12.8	12.3	11.2	8.7	5.0
95	**********		15.3	15.1	14.7	14.3	13.8	13.4	12.9	12.5	12.0	10.9	8.5	4.9
100	**********		14.9	14.7	14.3	13.9	13.5	13.1	12.6	12.2	11.7	10.7	8.3	4.8
125	**********		13.1	12.8	12.4	12.1	11.7	11.3	10.9	10.4	9.5	7.4	4.3	
150	**********		12.0	11.7	11.3	11.0	10.7	10.3	9.9	9.5	8.7	6.7	3.9	
200	**********		10.4	10.1	9.8	9.5	9.2	8.9	8.6	8.3	7.5	5.8	3.4	
250	**********	9.3	9.0	8.8	8.5	8.3	8.0	7.7	7.4	6.7	5.2	3.0		
300	**********	8.3	8.0	7.8	7.5	7.3	7.0	6.7	6.2	4.8	2.8			
350	**********	7.6	7.4	7.2	7.0	6.7	6.5	6.2	5.7	4.4	2.5			
400	**********	7.2	6.9	6.7	6.5	6.3	6.1	5.8	5.3	4.1	2.4			
450	**********	6.7	6.6	6.4	6.2	5.9	5.7	5.5	5.0	3.9	2.2			
500	**********	6.4	6.2	6.0	5.8	5.6	5.4	5.2	4.8	3.7	2.1			
750	**********	5.1	4.9	4.8	4.6	4.4	4.3	3.9	3.0	1.7				
1000	**********	4.3	4.1	4.0	3.8	3.7	3.4	2.6	1.5					
1500	**********	3.3	3.1	3.0	2.8	2.1	1.2							
2000	**********	2.6	2.4	1.8	1.1									
3000	**********	1.5	0.9											
4000	**********	0.8												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Ontario - Person level data

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	152.7	152.0	151.2	148.9	144.9	140.8	136.6	132.3	127.8	123.2	118.3	108.0	83.7	48.3
2	108.0	107.5	106.9	105.3	102.5	99.6	96.6	93.5	90.4	87.1	83.7	76.4	59.2	34.2
3	88.1	87.7	87.3	86.0	83.7	81.3	78.9	76.4	73.8	71.1	68.3	62.4	48.3	27.9
4	76.3	76.0	75.6	74.4	72.5	70.4	68.3	66.1	63.9	61.6	59.2	54.0	41.8	24.2
5	68.3	68.0	67.6	66.6	64.8	63.0	61.1	59.2	57.2	55.1	52.9	48.3	37.4	21.6
6	62.3	62.0	61.7	60.8	59.2	57.5	55.8	54.0	52.2	50.3	48.3	44.1	34.2	19.7
7	57.7	57.4	57.2	56.3	54.8	53.2	51.6	50.0	48.3	46.5	44.7	40.8	31.6	18.3
8	54.0	53.7	53.5	52.6	51.2	49.8	48.3	46.8	45.2	43.5	41.8	38.2	29.6	17.1
9	********	50.7	50.4	49.6	48.3	46.9	45.5	44.1	42.6	41.1	39.4	36.0	27.9	16.1
10	********	48.1	47.8	47.1	45.8	44.5	43.2	41.8	40.4	38.9	37.4	34.2	26.5	15.3
11	********	45.8	45.6	44.9	43.7	42.5	41.2	39.9	38.5	37.1	35.7	32.6	25.2	14.6
12	********	43.9	43.7	43.0	41.8	40.7	39.4	38.2	36.9	35.6	34.2	31.2	24.2	13.9
13	********	42.2	41.9	41.3	40.2	39.1	37.9	36.7	35.4	34.2	32.8	30.0	23.2	13.4
14	********	40.6	40.4	39.8	38.7	37.6	36.5	35.4	34.2	32.9	31.6	28.9	22.4	12.9
15	********	39.2	39.0	38.4	37.4	36.4	35.3	34.2	33.0	31.8	30.6	27.9	21.6	12.5
16	********	38.0	37.8	37.2	36.2	35.2	34.2	33.1	32.0	30.8	29.6	27.0	20.9	12.1
17	********	36.9	36.7	36.1	35.1	34.2	33.1	32.1	31.0	29.9	28.7	26.2	20.3	11.7
18	********	35.8	35.6	35.1	34.2	33.2	32.2	31.2	30.1	29.0	27.9	25.5	19.7	11.4
19	********	34.9	34.7	34.2	33.2	32.3	31.3	30.3	29.3	28.3	27.1	24.8	19.2	11.1
20	********	34.0	33.8	33.3	32.4	31.5	30.6	29.6	28.6	27.5	26.5	24.2	18.7	10.8
21	********	33.2	33.0	32.5	31.6	30.7	29.8	28.9	27.9	26.9	25.8	23.6	18.3	10.5
22	********	32.4	32.2	31.7	30.9	30.0	29.1	28.2	27.2	26.3	25.2	23.0	17.8	10.3
23	********	31.7	31.5	31.0	30.2	29.4	28.5	27.6	26.6	25.7	24.7	22.5	17.4	10.1
24	********	31.0	30.9	30.4	29.6	28.7	27.9	27.0	26.1	25.1	24.2	22.0	17.1	9.9
25	********	30.4	30.2	29.8	29.0	28.2	27.3	26.5	25.6	24.6	23.7	21.6	16.7	9.7
30	********	27.7	27.6	27.2	26.5	25.7	24.9	24.2	23.3	22.5	21.6	19.7	15.3	8.8
35	********	25.7	25.6	25.2	24.5	23.8	23.1	22.4	21.6	20.8	20.0	18.3	14.1	8.2
40	********	24.0	23.9	23.5	22.9	22.3	21.6	20.9	20.2	19.5	18.7	17.1	13.2	7.6
45	********	22.7	22.5	22.2	21.6	21.0	20.4	19.7	19.1	18.4	17.6	16.1	12.5	7.2
50	********	21.5	21.4	21.1	20.5	19.9	19.3	18.7	18.1	17.4	16.7	15.3	11.8	6.8
55	********	20.5	20.4	20.1	19.5	19.0	18.4	17.8	17.2	16.6	16.0	14.6	11.3	6.5
60	********	19.6	19.5	19.2	18.7	18.2	17.6	17.1	16.5	15.9	15.3	13.9	10.8	6.2
65	********	18.9	18.8	18.5	18.0	17.5	16.9	16.4	15.9	15.3	14.7	13.4	10.4	6.0
70	********	18.2	18.1	17.8	17.3	16.8	16.3	15.8	15.3	14.7	14.1	12.9	10.0	5.8
75	********	17.5	17.5	17.2	16.7	16.3	15.8	15.3	14.8	14.2	13.7	12.5	9.7	5.6
80	********	17.0	16.9	16.6	16.2	15.7	15.3	14.8	14.3	13.8	13.2	12.1	9.4	5.4
85	**********	16.4	16.1	15.7	15.3	14.8	14.3	13.9	13.4	12.8	11.7	9.1	5.2
90	**********	15.9	15.7	15.3	14.8	14.4	13.9	13.5	13.0	12.5	11.4	8.8	5.1
95	**********	15.5	15.3	14.9	14.4	14.0	13.6	13.1	12.6	12.1	11.1	8.6	5.0
100	**********	15.1	14.9	14.5	14.1	13.7	13.2	12.8	12.3	11.8	10.8	8.4	4.8
125	**********	13.5	13.3	13.0	12.6	12.2	11.8	11.4	11.0	10.6	9.7	7.5	4.3
150	**********	12.3	12.2	11.8	11.5	11.2	10.8	10.4	10.1	9.7	8.8	6.8	3.9
200	**********	10.5	10.2	10.0	9.7	9.4	9.0	8.7	8.4	7.6	6.8	5.9	3.4
250	**********	9.4	9.2	8.9	8.6	8.4	8.1	7.8	7.5	6.8	5.3	3.1
300	**********	8.6	8.4	8.1	7.9	7.6	7.4	7.1	6.8	6.2	4.8	2.8
350	**********	8.0	7.7	7.5	7.3	7.1	6.8	6.6	6.3	5.8	4.5	2.6
400	**********	7.4	7.2	7.0	6.8	6.6	6.4	6.2	5.9	5.4	4.2	2.4
450	**********	6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.1	3.9	2.3
500	**********	6.5	6.3	6.1	5.9	5.7	5.5	5.3	4.8	3.7	2.2
750	**********	5.3	5.1	5.0	4.8	4.7	4.5	4.3	3.9	3.1	1.8
1000	**********	4.5	4.3	4.2	4.0	3.9	3.7	3.4	2.6	1.5
1500	**********	3.5	3.4	3.3	3.2	3.1	2.8	2.2	1.2
2000	**********	3.0	2.9	2.8	2.6	2.4	1.9	1.1
3000	**********	2.2	2.0	1.5	0.9
4000	**********	1.7	1.3	0.8
5000	**********	1.2	0.7
6000	**********	0.6
7000	**********	0.6

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Manitoba - Person level data

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	********	75.5	75.1	74.0	72.0	70.0	67.9	65.7	63.5	61.2	58.8	53.7	41.6	24.0
2	********	53.4	53.1	52.3	50.9	49.5	48.0	46.5	44.9	43.3	41.6	37.9	29.4	17.0
3	********	43.6	43.4	42.7	41.6	40.4	39.2	37.9	36.7	35.3	33.9	31.0	24.0	13.9
4	********	37.8	37.6	37.0	36.0	35.0	33.9	32.9	31.7	30.6	29.4	26.8	20.8	12.0
5	********	33.8	33.6	33.1	32.2	31.3	30.4	29.4	28.4	27.4	26.3	24.0	18.6	10.7
6	********	30.8	30.7	30.2	29.4	28.6	27.7	26.8	25.9	25.0	24.0	21.9	17.0	9.8
7	********	28.5	28.4	28.0	27.2	26.4	25.7	24.8	24.0	23.1	22.2	20.3	15.7	9.1
8	**********		26.6	26.2	25.5	24.7	24.0	23.2	22.4	21.6	20.8	19.0	14.7	8.5
9	**********		25.0	24.7	24.0	23.3	22.6	21.9	21.2	20.4	19.6	17.9	13.9	8.0
10	**********		23.8	23.4	22.8	22.1	21.5	20.8	20.1	19.3	18.6	17.0	13.1	7.6
11	**********		22.7	22.3	21.7	21.1	20.5	19.8	19.1	18.4	17.7	16.2	12.5	7.2
12	**********		21.7	21.4	20.8	20.2	19.6	19.0	18.3	17.7	17.0	15.5	12.0	6.9
13	**********		20.8	20.5	20.0	19.4	18.8	18.2	17.6	17.0	16.3	14.9	11.5	6.7
14	**********		20.1	19.8	19.2	18.7	18.1	17.6	17.0	16.4	15.7	14.3	11.1	6.4
15	**********		19.1	18.6	18.1	17.5	17.0	16.4	15.8	15.2	14.6	13.9	10.7	6.2
16	**********		18.5	18.0	17.5	17.0	16.4	15.9	15.3	14.7	13.4	10.4	6.0	
17	**********		17.9	17.5	17.0	16.5	15.9	15.4	14.8	14.3	13.0	10.1	5.8	
18	**********		17.4	17.0	16.5	16.0	15.5	15.0	14.4	13.9	12.6	9.8	5.7	
19	**********		17.0	16.5	16.1	15.6	15.1	14.6	14.0	13.5	12.3	9.5	5.5	
20	**********		16.5	16.1	15.6	15.2	14.7	14.2	13.7	13.1	12.0	9.3	5.4	
21	**********		16.1	15.7	15.3	14.8	14.3	13.9	13.4	12.8	11.7	9.1	5.2	
22	**********		15.8	15.4	14.9	14.5	14.0	13.5	13.0	12.5	11.4	8.9	5.1	
23	**********		15.4	15.0	14.6	14.2	13.7	13.2	12.8	12.3	11.2	8.7	5.0	
24	**********		15.1	14.7	14.3	13.9	13.4	13.0	12.5	12.0	11.0	8.5	4.9	
25	**********		14.8	14.4	14.0	13.6	13.1	12.7	12.2	11.8	10.7	8.3	4.8	
30	**********		13.5	13.1	12.8	12.4	12.0	11.6	11.2	10.7	9.8	7.6	4.4	
35	**********		12.5	12.2	11.8	11.5	11.1	10.7	10.3	9.9	9.1	7.0	4.1	
40	**********		11.4	11.1	10.7	10.4	10.0	9.7	9.3	8.5	6.6	3.8		
45	**********		10.7	10.4	10.1	9.8	9.5	9.1	8.8	8.0	6.2	3.6		
50	**********		10.2	9.9	9.6	9.3	9.0	8.7	8.3	7.6	5.9	3.4		
55	**********		9.7	9.4	9.2	8.9	8.6	8.3	7.9	7.2	5.6	3.2		
60	**********		9.3	9.0	8.8	8.5	8.2	7.9	7.6	6.9	5.4	3.1		
65	**********		8.9	8.7	8.4	8.2	7.9	7.6	7.3	6.7	5.2	3.0		
70	**********		8.6	8.4	8.1	7.9	7.6	7.3	7.0	6.4	5.0	2.9		
75	**********		8.1	7.8	7.6	7.3	7.1	6.8	6.2	4.8	2.8			
80	**********		7.8	7.6	7.3	7.1	6.8	6.6	6.0	4.6	2.7			
85	**********		7.6	7.4	7.1	6.9	6.6	6.4	5.8	4.5	2.6			
90	**********		7.4	7.2	6.9	6.7	6.4	6.2	5.7	4.4	2.5			
95	**********		7.2	7.0	6.7	6.5	6.3	6.0	5.5	4.3	2.5			
100	**********		7.0	6.8	6.6	6.3	6.1	5.9	5.4	4.2	2.4			
125	**********		6.1	5.9	5.7	5.5	5.3	4.8	3.7	2.1				
150	**********		5.4	5.2	5.0	4.8	4.4	3.4	2.0					
200	**********		4.5	4.3	4.2	3.8	2.9	1.7						
250	**********		3.9	3.7	3.4	2.6	1.5							
300	**********		3.1	2.4	1.4									
350	**********		2.9	2.2	1.3									
400	**********		2.1	1.2										
450	**********		2.0	1.1										
500	**********		1.9	1.1										

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Saskatchewan - Person level data

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	********	65.6	65.2	64.2	62.5	60.8	58.9	57.1	55.1	53.1	51.0	46.6	36.1	20.8
2	********	46.4	46.1	45.4	44.2	43.0	41.7	40.4	39.0	37.6	36.1	32.9	25.5	14.7
3	********	37.9	37.7	37.1	36.1	35.1	34.0	32.9	31.8	30.7	29.5	26.9	20.8	12.0
4	********	32.8	32.6	32.1	31.3	30.4	29.5	28.5	27.6	26.6	25.5	23.3	18.0	10.4
5	********	29.3	29.2	28.7	28.0	27.2	26.4	25.5	24.7	23.8	22.8	20.8	16.1	9.3
6	********	26.8	26.6	26.2	25.5	24.8	24.1	23.3	22.5	21.7	20.8	19.0	14.7	8.5
7	**********	24.7	24.3	23.6	23.0	22.3	21.6	20.8	20.1	19.3	17.6	13.6	7.9	
8	**********	23.1	22.7	22.1	21.5	20.8	20.2	19.5	18.8	18.0	16.5	12.8	7.4	
9	**********	21.7	21.4	20.8	20.3	19.6	19.0	18.4	17.7	17.0	15.5	12.0	6.9	
10	**********	20.6	20.3	19.8	19.2	18.6	18.0	17.4	16.8	16.1	14.7	11.4	6.6	
11	**********	19.7	19.4	18.8	18.3	17.8	17.2	16.6	16.0	15.4	14.0	10.9	6.3	
12	**********	18.8	18.5	18.0	17.5	17.0	16.5	15.9	15.3	14.7	13.5	10.4	6.0	
13	**********	17.8	17.3	16.9	16.3	15.8	15.3	14.7	14.2	12.9	10.0	5.8		
14	**********	17.2	16.7	16.2	15.8	15.3	14.7	14.2	13.6	12.5	9.6	5.6		
15	**********	16.6	16.1	15.7	15.2	14.7	14.2	13.7	13.2	12.0	9.3	5.4		
16	**********	16.1	15.6	15.2	14.7	14.3	13.8	13.3	12.8	11.6	9.0	5.2		
17	**********	15.6	15.2	14.7	14.3	13.8	13.4	12.9	12.4	11.3	8.8	5.1		
18	**********	15.1	14.7	14.3	13.9	13.5	13.0	12.5	12.0	11.0	8.5	4.9		
19	**********	14.7	14.3	13.9	13.5	13.1	12.6	12.2	11.7	10.7	8.3	4.8		
20	**********	14.4	14.0	13.6	13.2	12.8	12.3	11.9	11.4	10.4	8.1	4.7		
21	**********	14.0	13.6	13.3	12.9	12.5	12.0	11.6	11.1	10.2	7.9	4.5		
22	**********	13.7	13.3	13.0	12.6	12.2	11.8	11.3	10.9	9.9	7.7	4.4		
23	**********	13.4	13.0	12.7	12.3	11.9	11.5	11.1	10.6	9.7	7.5	4.3		
24	**********	13.1	12.8	12.4	12.0	11.6	11.3	10.8	10.4	9.5	7.4	4.3		
25	**********	12.8	12.5	12.2	11.8	11.4	11.0	10.6	10.2	9.3	7.2	4.2		
30	**********	11.7	11.4	11.1	10.8	10.4	10.1	9.7	9.3	8.5	6.6	3.8		
35	**********	10.6	10.3	10.0	9.6	9.3	9.0	8.6	7.9	6.1	3.5			
40	**********	9.9	9.6	9.3	9.0	8.7	8.4	8.1	7.4	5.7	3.3			
45	**********	9.3	9.1	8.8	8.5	8.2	7.9	7.6	6.9	5.4	3.1			
50	**********	8.8	8.6	8.3	8.1	7.8	7.5	7.2	6.6	5.1	2.9			
55	**********	8.4	8.2	7.9	7.7	7.4	7.2	6.9	6.3	4.9	2.8			
60	**********	8.1	7.8	7.6	7.4	7.1	6.9	6.6	6.0	4.7	2.7			
65	**********	7.5	7.3	7.1	6.8	6.6	6.3	5.8	4.5	2.6				
70	**********	7.3	7.0	6.8	6.6	6.4	6.1	5.6	4.3	2.5				
75	**********	7.0	6.8	6.6	6.4	6.1	5.9	5.4	4.2	2.4				
80	**********	6.8	6.6	6.4	6.2	5.9	5.7	5.2	4.0	2.3				
85	**********	6.6	6.4	6.2	6.0	5.8	5.5	5.1	3.9	2.3				
90	**********	6.4	6.2	6.0	5.8	5.6	5.4	4.9	3.8	2.2				
95	**********	6.0	5.9	5.7	5.5	5.2	4.8	3.7	2.1					
100	**********	5.9	5.7	5.5	5.3	5.1	4.7	3.6	2.1					
125	**********	5.1	4.9	4.8	4.6	4.2	3.2	1.9						
150	**********	4.7	4.5	4.3	4.2	3.8	2.9	1.7						
200	**********	3.8	3.6	3.3	2.6	1.5								
250	**********	2.9	2.3	1.3										
300	**********	2.7	2.1	1.2										
350	**********	1.9	1.1											
400	**********	1.8	1.0											
450	**********	1.0												
500	**********	0.9												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Alberta - Person level data

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	115.4	114.8	114.3	112.5	109.5	106.4	103.2	100.0	96.6	93.1	89.4	81.6	63.2	36.5
2	********	81.2	80.8	79.5	77.4	75.2	73.0	70.7	68.3	65.8	63.2	57.7	44.7	25.8
3	********	66.3	66.0	64.9	63.2	61.4	59.6	57.7	55.8	53.7	51.6	47.1	36.5	21.1
4	********	57.4	57.1	56.2	54.7	53.2	51.6	50.0	48.3	46.5	44.7	40.8	31.6	18.2
5	********	51.4	51.1	50.3	49.0	47.6	46.2	44.7	43.2	41.6	40.0	36.5	28.3	16.3
6	********	46.9	46.6	45.9	44.7	43.4	42.1	40.8	39.4	38.0	36.5	33.3	25.8	14.9
7	********	43.4	43.2	42.5	41.4	40.2	39.0	37.8	36.5	35.2	33.8	30.8	23.9	13.8
8	********	40.6	40.4	39.8	38.7	37.6	36.5	35.3	34.1	32.9	31.6	28.9	22.3	12.9
9	********	38.3	38.1	37.5	36.5	35.5	34.4	33.3	32.2	31.0	29.8	27.2	21.1	12.2
10	********	36.3	36.1	35.6	34.6	33.6	32.6	31.6	30.5	29.4	28.3	25.8	20.0	11.5
11	********	34.6	34.4	33.9	33.0	32.1	31.1	30.1	29.1	28.1	27.0	24.6	19.1	11.0
12	********	33.2	33.0	32.5	31.6	30.7	29.8	28.9	27.9	26.9	25.8	23.6	18.2	10.5
13	********	31.8	31.7	31.2	30.4	29.5	28.6	27.7	26.8	25.8	24.8	22.6	17.5	10.1
14	********	30.7	30.5	30.1	29.3	28.4	27.6	26.7	25.8	24.9	23.9	21.8	16.9	9.8
15	********	29.7	29.5	29.0	28.3	27.5	26.7	25.8	24.9	24.0	23.1	21.1	16.3	9.4
16	********	28.7	28.6	28.1	27.4	26.6	25.8	25.0	24.1	23.3	22.3	20.4	15.8	9.1
17	********	27.9	27.7	27.3	26.6	25.8	25.0	24.2	23.4	22.6	21.7	19.8	15.3	8.9
18	********	27.1	26.9	26.5	25.8	25.1	24.3	23.6	22.8	21.9	21.1	19.2	14.9	8.6
19	********	26.3	26.2	25.8	25.1	24.4	23.7	22.9	22.2	21.3	20.5	18.7	14.5	8.4
20	**********	25.5	25.2	24.5	23.8	23.1	22.3	21.6	20.8	20.0	18.2	14.1	8.2	
21	**********	24.9	24.5	23.9	23.2	22.5	21.8	21.1	20.3	19.5	17.8	13.8	8.0	
22	**********	24.4	24.0	23.3	22.7	22.0	21.3	20.6	19.8	19.1	17.4	13.5	7.8	
23	**********	23.8	23.5	22.8	22.2	21.5	20.8	20.1	19.4	18.6	17.0	13.2	7.6	
24	**********	23.3	23.0	22.3	21.7	21.1	20.4	19.7	19.0	18.2	16.7	12.9	7.4	
25	**********	22.9	22.5	21.9	21.3	20.6	20.0	19.3	18.6	17.9	16.3	12.6	7.3	
30	**********	20.9	20.5	20.0	19.4	18.8	18.2	17.6	17.0	16.3	14.9	11.5	6.7	
35	**********	19.3	19.0	18.5	18.0	17.4	16.9	16.3	15.7	15.1	13.8	10.7	6.2	
40	**********	17.8	17.3	16.8	16.3	15.8	15.3	14.7	14.1	12.9	10.0	5.8		
45	**********	16.8	16.3	15.9	15.4	14.9	14.4	13.9	13.3	12.2	9.4	5.4		
50	**********	15.9	15.5	15.0	14.6	14.1	13.7	13.2	12.6	11.5	8.9	5.2		
55	**********	15.2	14.8	14.3	13.9	13.5	13.0	12.5	12.1	11.0	8.5	4.9		
60	**********	14.5	14.1	13.7	13.3	12.9	12.5	12.0	11.5	10.5	8.2	4.7		
65	**********	14.0	13.6	13.2	12.8	12.4	12.0	11.5	11.1	10.1	7.8	4.5		
70	**********	13.4	13.1	12.7	12.3	11.9	11.5	11.1	10.7	9.8	7.6	4.4		
75	**********	13.0	12.6	12.3	11.9	11.5	11.2	10.7	10.3	9.4	7.3	4.2		
80	**********	12.6	12.2	11.9	11.5	11.2	10.8	10.4	10.0	9.1	7.1	4.1		
85	**********	12.2	11.9	11.5	11.2	10.8	10.5	10.1	9.7	8.9	6.9	4.0		
90	**********	11.9	11.5	11.2	10.9	10.5	10.2	9.8	9.4	8.6	6.7	3.8		
95	**********	11.5	11.2	10.9	10.6	10.3	9.9	9.5	9.2	8.4	6.5	3.7		
100	**********	10.9	10.6	10.3	10.0	9.7	9.3	8.9	8.2	6.3	3.6			
125	**********	9.8	9.5	9.2	8.9	8.6	8.3	8.0	7.3	5.7	3.3			
150	**********	8.9	8.7	8.4	8.2	7.9	7.6	7.3	6.7	5.2	3.0			
200	**********	7.5	7.3	7.1	6.8	6.6	6.3	5.8	4.5	2.6				
250	**********	6.7	6.5	6.3	6.1	5.9	5.7	5.2	4.0	2.3				
300	**********	6.0	5.8	5.6	5.4	5.2	4.7	3.6	2.1					
350	**********	5.5	5.3	5.2	5.0	4.8	4.4	3.4	2.0					
400	**********	5.0	4.8	4.7	4.5	4.1	3.2	1.8						
450	**********	4.7	4.6	4.4	4.2	3.8	3.0	1.7						
500	**********	4.3	4.2	4.0	3.6	2.8	1.6							
750	**********	3.3	3.0	2.3	1.3									
1000	**********	2.0	1.2											
1500	**********	0.9												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for British Columbia - Person level data

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	134.1	133.5	132.9	130.8	127.3	123.7	120.0	116.2	112.3	108.2	104.0	94.9	73.5	42.4
2	94.9	94.4	93.9	92.5	90.0	87.5	84.9	82.2	79.4	76.5	73.5	67.1	52.0	30.0
3	********	77.1	76.7	75.5	73.5	71.4	69.3	67.1	64.8	62.5	60.0	54.8	42.4	24.5
4	********	66.8	66.4	65.4	63.7	61.9	60.0	58.1	56.1	54.1	52.0	47.5	36.8	21.2
5	********	59.7	59.4	58.5	56.9	55.3	53.7	52.0	50.2	48.4	46.5	42.4	32.9	19.0
6	********	54.5	54.2	53.4	52.0	50.5	49.0	47.5	45.8	44.2	42.4	38.7	30.0	17.3
7	********	50.5	50.2	49.4	48.1	46.8	45.4	43.9	42.4	40.9	39.3	35.9	27.8	16.0
8	********	47.2	47.0	46.2	45.0	43.7	42.4	41.1	39.7	38.3	36.8	33.6	26.0	15.0
9	********	44.5	44.3	43.6	42.4	41.2	40.0	38.7	37.4	36.1	34.7	31.6	24.5	14.1
10	********	42.2	42.0	41.4	40.3	39.1	38.0	36.8	35.5	34.2	32.9	30.0	23.2	13.4
11	********	40.3	40.1	39.4	38.4	37.3	36.2	35.0	33.9	32.6	31.3	28.6	22.2	12.8
12	********	38.5	38.4	37.8	36.8	35.7	34.7	33.6	32.4	31.2	30.0	27.4	21.2	12.3
13	********	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
14	********	35.7	35.5	35.0	34.0	33.1	32.1	31.1	30.0	28.9	27.8	25.4	19.6	11.3
15	********	34.5	34.3	33.8	32.9	31.9	31.0	30.0	29.0	27.9	26.8	24.5	19.0	11.0
16	********	33.4	33.2	32.7	31.8	30.9	30.0	29.1	28.1	27.1	26.0	23.7	18.4	10.6
17	********	32.4	32.2	31.7	30.9	30.0	29.1	28.2	27.2	26.2	25.2	23.0	17.8	10.3
18	********	31.5	31.3	30.8	30.0	29.2	28.3	27.4	26.5	25.5	24.5	22.4	17.3	10.0
19	********	30.6	30.5	30.0	29.2	28.4	27.5	26.7	25.8	24.8	23.8	21.8	16.9	9.7
20	********	29.9	29.7	29.3	28.5	27.7	26.8	26.0	25.1	24.2	23.2	21.2	16.4	9.5
21	********	29.1	29.0	28.5	27.8	27.0	26.2	25.4	24.5	23.6	22.7	20.7	16.0	9.3
22	********	28.5	28.3	27.9	27.1	26.4	25.6	24.8	23.9	23.1	22.2	20.2	15.7	9.0
23	********	27.8	27.7	27.3	26.5	25.8	25.0	24.2	23.4	22.6	21.7	19.8	15.3	8.8
24	********	27.3	27.1	26.7	26.0	25.3	24.5	23.7	22.9	22.1	21.2	19.4	15.0	8.7
25	********	26.7	26.6	26.2	25.5	24.7	24.0	23.2	22.5	21.6	20.8	19.0	14.7	8.5
30	**********	24.3	23.9	23.2	22.6	21.9	21.2	20.5	19.8	19.0	17.3	13.4	7.7
35	**********	22.5	22.1	21.5	20.9	20.3	19.6	19.0	18.3	17.6	16.0	12.4	7.2
40	**********	21.0	20.7	20.1	19.6	19.0	18.4	17.8	17.1	16.4	15.0	11.6	6.7
45	**********	19.8	19.5	19.0	18.4	17.9	17.3	16.7	16.1	15.5	14.1	11.0	6.3
50	**********	18.8	18.5	18.0	17.5	17.0	16.4	15.9	15.3	14.7	13.4	10.4	6.0
55	**********	17.9	17.6	17.2	16.7	16.2	15.7	15.1	14.6	14.0	12.8	9.9	5.7
60	**********	16.9	16.4	16.0	15.5	15.0	14.5	14.0	13.4	12.3	9.5	5.5
65	**********	16.2	15.8	15.3	14.9	14.4	13.9	13.4	12.9	11.8	9.1	5.3
70	**********	15.6	15.2	14.8	14.3	13.9	13.4	12.9	12.4	11.3	8.8	5.1
75	**********	15.1	14.7	14.3	13.9	13.4	13.0	12.5	12.0	11.0	8.5	4.9
80	**********	14.6	14.2	13.8	13.4	13.0	12.6	12.1	11.6	10.6	8.2	4.7
85	**********	14.2	13.8	13.4	13.0	12.6	12.2	11.7	11.3	10.3	8.0	4.6
90	**********	13.8	13.4	13.0	12.7	12.3	11.8	11.4	11.0	10.0	7.7	4.5
95	**********	13.4	13.1	12.7	12.3	11.9	11.5	11.1	10.7	9.7	7.5	4.4
100	**********	13.1	12.7	12.4	12.0	11.6	11.2	10.8	10.4	9.5	7.4	4.2
125	**********	11.7	11.4	11.1	10.7	10.4	10.0	9.7	9.3	8.5	6.6	3.8
150	**********	10.4	10.1	9.8	9.5	9.2	8.8	8.5	7.7	6.0	3.5
200	**********	9.0	8.7	8.5	8.2	7.9	7.7	7.4	6.7	5.2	3.0
250	**********	8.1	7.8	7.6	7.4	7.1	6.8	6.6	6.0	4.6	2.7
300	**********	7.1	6.9	6.7	6.5	6.2	6.0	5.5	4.2	2.5
350	**********	6.6	6.4	6.2	6.0	5.8	5.6	5.1	3.9	2.3
400	**********	6.2	6.0	5.8	5.6	5.4	5.2	4.7	3.7	2.1
450	**********	5.7	5.5	5.3	5.1	4.9	4.5	3.5	2.0
500	**********	5.4	5.2	5.0	4.8	4.6	4.2	3.3	1.9
750	**********	4.1	4.0	3.8	3.5	2.7	1.5
1000	**********	3.3	3.0	2.3	1.3
1500	**********	1.9	1.1
2000	**********	0.9

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Atlantic Provinces - Person level data

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	74.3	73.9	73.6	72.4	70.5	68.5	66.5	64.3	62.2	59.9	57.6	52.5	40.7	23.5
2	********	52.3	52.0	51.2	49.8	48.4	47.0	45.5	44.0	42.4	40.7	37.1	28.8	16.6
3	********	42.7	42.5	41.8	40.7	39.5	38.4	37.1	35.9	34.6	33.2	30.3	23.5	13.6
4	********	37.0	36.8	36.2	35.2	34.2	33.2	32.2	31.1	30.0	28.8	26.3	20.3	11.7
5	********	33.1	32.9	32.4	31.5	30.6	29.7	28.8	27.8	26.8	25.7	23.5	18.2	10.5
6	********	30.2	30.0	29.6	28.8	28.0	27.1	26.3	25.4	24.5	23.5	21.4	16.6	9.6
7	********	27.9	27.8	27.4	26.6	25.9	25.1	24.3	23.5	22.6	21.8	19.9	15.4	8.9
8	********	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
9	********	24.6	24.5	24.1	23.5	22.8	22.2	21.4	20.7	20.0	19.2	17.5	13.6	7.8
10	********	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
11	********	22.3	22.2	21.8	21.3	20.7	20.0	19.4	18.7	18.1	17.4	15.8	12.3	7.1
12	********	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
13	********	20.5	20.4	20.1	19.5	19.0	18.4	17.8	17.2	16.6	16.0	14.6	11.3	6.5
14	********	19.8	19.7	19.4	18.8	18.3	17.8	17.2	16.6	16.0	15.4	14.0	10.9	6.3
15	********	19.1	19.0	18.7	18.2	17.7	17.2	16.6	16.1	15.5	14.9	13.6	10.5	6.1
16	********	18.5	18.4	18.1	17.6	17.1	16.6	16.1	15.5	15.0	14.4	13.1	10.2	5.9
17	**********	17.8	17.6	17.1	16.6	16.1	15.6	15.1	14.5	14.0	12.7	9.9	5.7	
18	**********	17.3	17.1	16.6	16.1	15.7	15.2	14.7	14.1	13.6	12.4	9.6	5.5	
19	**********	16.9	16.6	16.2	15.7	15.2	14.8	14.3	13.7	13.2	12.1	9.3	5.4	
20	**********	16.4	16.2	15.8	15.3	14.9	14.4	13.9	13.4	12.9	11.7	9.1	5.3	
21	**********	16.1	15.8	15.4	14.9	14.5	14.0	13.6	13.1	12.6	11.5	8.9	5.1	
22	**********	15.7	15.4	15.0	14.6	14.2	13.7	13.3	12.8	12.3	11.2	8.7	5.0	
23	**********	15.3	15.1	14.7	14.3	13.9	13.4	13.0	12.5	12.0	11.0	8.5	4.9	
24	**********	15.0	14.8	14.4	14.0	13.6	13.1	12.7	12.2	11.7	10.7	8.3	4.8	
25	**********	14.7	14.5	14.1	13.7	13.3	12.9	12.4	12.0	11.5	10.5	8.1	4.7	
30	**********	13.4	13.2	12.9	12.5	12.1	11.7	11.3	10.9	10.5	9.6	7.4	4.3	
35	**********	12.2	11.9	11.6	11.2	10.9	10.5	10.1	9.7	8.9	6.9	4.0		
40	**********	11.5	11.1	10.8	10.5	10.2	9.8	9.5	9.1	8.3	6.4	3.7		
45	**********	10.8	10.5	10.2	9.9	9.6	9.3	8.9	8.6	7.8	6.1	3.5		
50	**********	10.2	10.0	9.7	9.4	9.1	8.8	8.5	8.1	7.4	5.8	3.3		
55	**********	9.8	9.5	9.2	9.0	8.7	8.4	8.1	7.8	7.1	5.5	3.2		
60	**********	9.3	9.1	8.8	8.6	8.3	8.0	7.7	7.4	6.8	5.3	3.0		
65	**********	9.0	8.7	8.5	8.2	8.0	7.7	7.4	7.1	6.5	5.0	2.9		
70	**********	8.7	8.4	8.2	7.9	7.7	7.4	7.2	6.9	6.3	4.9	2.8		
75	**********	8.4	8.1	7.9	7.7	7.4	7.2	6.9	6.6	6.1	4.7	2.7		
80	**********	8.1	7.9	7.7	7.4	7.2	6.9	6.7	6.4	5.9	4.5	2.6		
85	**********	7.6	7.4	7.2	7.0	6.7	6.5	6.2	5.7	4.4	2.5			
90	**********	7.4	7.2	7.0	6.8	6.6	6.3	6.1	5.5	4.3	2.5			
95	**********	7.2	7.0	6.8	6.6	6.4	6.1	5.9	5.4	4.2	2.4			
100	**********	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.3	4.1	2.3			
125	**********	6.3	6.1	5.9	5.8	5.6	5.4	5.1	4.7	3.6	2.1			
150	**********	5.8	5.6	5.4	5.3	5.1	4.9	4.7	4.3	3.3	1.9			
200	**********	4.8	4.7	4.5	4.4	4.2	4.1	3.7	2.9	1.7				
250	**********	4.2	4.1	3.9	3.8	3.6	3.3	2.6	1.5					
300	**********	3.8	3.7	3.6	3.5	3.3	3.0	2.3	1.4					
350	**********	3.4	3.3	3.2	3.1	2.8	2.2	1.3						
400	**********	3.2	3.1	3.0	2.9	2.6	2.0	1.2						
450	**********	2.9	2.8	2.7	2.5	1.9	1.1							
500	**********	2.7	2.6	2.3	1.8	1.1								
750	**********	1.9	1.5	0.9										
1000	**********	1.3	0.7											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Prairie Provinces - Person level data

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	97.0	96.6	96.1	94.6	92.1	89.5	86.8	84.1	81.2	78.3	75.2	68.6	53.2	30.7
2	68.6	68.3	67.9	66.9	65.1	63.3	61.4	59.4	57.4	55.3	53.2	48.5	37.6	21.7
3	56.0	55.8	55.5	54.6	53.2	51.7	50.1	48.5	46.9	45.2	43.4	39.6	30.7	17.7
4	********	48.3	48.0	47.3	46.0	44.7	43.4	42.0	40.6	39.1	37.6	34.3	26.6	15.3
5	********	43.2	43.0	42.3	41.2	40.0	38.8	37.6	36.3	35.0	33.6	30.7	23.8	13.7
6	********	39.4	39.2	38.6	37.6	36.5	35.4	34.3	33.2	31.9	30.7	28.0	21.7	12.5
7	********	36.5	36.3	35.8	34.8	33.8	32.8	31.8	30.7	29.6	28.4	25.9	20.1	11.6
8	********	34.1	34.0	33.4	32.6	31.6	30.7	29.7	28.7	27.7	26.6	24.3	18.8	10.9
9	********	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
10	********	30.5	30.4	29.9	29.1	28.3	27.5	26.6	25.7	24.7	23.8	21.7	16.8	9.7
11	********	29.1	29.0	28.5	27.8	27.0	26.2	25.3	24.5	23.6	22.7	20.7	16.0	9.3
12	********	27.9	27.7	27.3	26.6	25.8	25.1	24.3	23.4	22.6	21.7	19.8	15.3	8.9
13	********	26.8	26.7	26.2	25.5	24.8	24.1	23.3	22.5	21.7	20.9	19.0	14.7	8.5
14	********	25.8	25.7	25.3	24.6	23.9	23.2	22.5	21.7	20.9	20.1	18.3	14.2	8.2
15	********	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
16	********	24.1	24.0	23.7	23.0	22.4	21.7	21.0	20.3	19.6	18.8	17.2	13.3	7.7
17	********	23.4	23.3	22.9	22.3	21.7	21.1	20.4	19.7	19.0	18.2	16.6	12.9	7.4
18	********	22.8	22.6	22.3	21.7	21.1	20.5	19.8	19.1	18.4	17.7	16.2	12.5	7.2
19	********	22.2	22.0	21.7	21.1	20.5	19.9	19.3	18.6	18.0	17.2	15.7	12.2	7.0
20	********	21.6	21.5	21.2	20.6	20.0	19.4	18.8	18.2	17.5	16.8	15.3	11.9	6.9
21	********	21.1	21.0	20.6	20.1	19.5	18.9	18.3	17.7	17.1	16.4	15.0	11.6	6.7
22	********	20.6	20.5	20.2	19.6	19.1	18.5	17.9	17.3	16.7	16.0	14.6	11.3	6.5
23	********	20.1	20.0	19.7	19.2	18.7	18.1	17.5	16.9	16.3	15.7	14.3	11.1	6.4
24	********	19.7	19.6	19.3	18.8	18.3	17.7	17.2	16.6	16.0	15.3	14.0	10.9	6.3
25	********	19.3	19.2	18.9	18.4	17.9	17.4	16.8	16.2	15.7	15.0	13.7	10.6	6.1
30	********	17.6	17.5	17.3	16.8	16.3	15.9	15.3	14.8	14.3	13.7	12.5	9.7	5.6
35	**********	16.2	16.0	15.6	15.1	14.7	14.2	13.7	13.2	12.7	11.6	9.0	5.2	
40	**********	15.2	15.0	14.6	14.2	13.7	13.3	12.8	12.4	11.9	10.9	8.4	4.9	
45	**********	14.3	14.1	13.7	13.3	12.9	12.5	12.1	11.7	11.2	10.2	7.9	4.6	
50	**********	13.6	13.4	13.0	12.7	12.3	11.9	11.5	11.1	10.6	9.7	7.5	4.3	
55	**********	13.0	12.8	12.4	12.1	11.7	11.3	11.0	10.6	10.1	9.3	7.2	4.1	
60	**********	12.4	12.2	11.9	11.6	11.2	10.9	10.5	10.1	9.7	8.9	6.9	4.0	
65	**********	11.9	11.7	11.4	11.1	10.8	10.4	10.1	9.7	9.3	8.5	6.6	3.8	
70	**********	11.3	11.0	10.7	10.4	10.0	9.7	9.4	9.0	8.2	6.4	3.7		
75	**********	10.9	10.6	10.3	10.0	9.7	9.4	9.0	8.7	7.9	6.1	3.5		
80	**********	10.6	10.3	10.0	9.7	9.4	9.1	8.7	8.4	7.7	5.9	3.4		
85	**********	10.3	10.0	9.7	9.4	9.1	8.8	8.5	8.2	7.4	5.8	3.3		
90	**********	10.0	9.7	9.4	9.2	8.9	8.6	8.2	7.9	7.2	5.6	3.2		
95	**********	9.7	9.4	9.2	8.9	8.6	8.3	8.0	7.7	7.0	5.5	3.1		
100	**********	9.5	9.2	8.9	8.7	8.4	8.1	7.8	7.5	6.9	5.3	3.1		
125	**********	8.5	8.2	8.0	7.8	7.5	7.3	7.0	6.7	6.1	4.8	2.7		
150	**********	7.7	7.5	7.3	7.1	6.9	6.6	6.4	6.1	5.6	4.3	2.5		
200	**********	6.5	6.3	6.1	5.9	5.7	5.5	5.3	4.9	3.8	2.2			
250	**********	5.8	5.7	5.5	5.3	5.1	4.9	4.8	4.3	3.4	1.9			
300	**********	5.3	5.2	5.0	4.9	4.7	4.5	4.3	4.0	3.1	1.8			
350	**********	4.8	4.6	4.5	4.3	4.2	4.0	3.7	2.8	1.6				
400	**********	4.5	4.3	4.2	4.1	3.9	3.8	3.4	2.7	1.5				
450	**********	4.2	4.1	4.0	3.8	3.7	3.5	3.2	2.5	1.4				
500	**********	3.9	3.8	3.6	3.5	3.4	3.1	2.4	1.4					
750	**********	3.1	3.0	2.9	2.7	2.5	1.9	1.1						
1000	**********	2.5	2.4	2.2	1.7	1.0								
1500	**********	1.8	1.4	0.8										
2000	**********	1.2	0.7											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Approximate Sampling Variability Tables for Canada – Person level data

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	135.3	134.6	134.0	131.9	128.4	124.8	121.0	117.2	113.2	109.1	104.8	95.7	74.1	42.8
2	95.6	95.2	94.7	93.3	90.8	88.2	85.6	82.9	80.1	77.1	74.1	67.7	52.4	30.3
3	78.1	77.7	77.3	76.1	74.1	72.0	69.9	67.7	65.4	63.0	60.5	55.2	42.8	24.7
4	67.6	67.3	67.0	65.9	64.2	62.4	60.5	58.6	56.6	54.5	52.4	47.8	37.1	21.4
5	60.5	60.2	59.9	59.0	57.4	55.8	54.1	52.4	50.6	48.8	46.9	42.8	33.1	19.1
6	55.2	55.0	54.7	53.8	52.4	50.9	49.4	47.8	46.2	44.5	42.8	39.1	30.3	17.5
7	51.1	50.9	50.6	49.9	48.5	47.2	45.7	44.3	42.8	41.2	39.6	36.2	28.0	16.2
8	47.8	47.6	47.4	46.6	45.4	44.1	42.8	41.4	40.0	38.6	37.1	33.8	26.2	15.1
9	45.1	44.9	44.7	44.0	42.8	41.6	40.3	39.1	37.7	36.4	34.9	31.9	24.7	14.3
10	42.8	42.6	42.4	41.7	40.6	39.5	38.3	37.1	35.8	34.5	33.1	30.3	23.4	13.5
11	40.8	40.6	40.4	39.8	38.7	37.6	36.5	35.3	34.1	32.9	31.6	28.8	22.3	12.9
12	39.0	38.9	38.7	38.1	37.1	36.0	34.9	33.8	32.7	31.5	30.3	27.6	21.4	12.4
13	37.5	37.3	37.2	36.6	35.6	34.6	33.6	32.5	31.4	30.3	29.1	26.5	20.6	11.9
14	36.1	36.0	35.8	35.2	34.3	33.3	32.3	31.3	30.3	29.2	28.0	25.6	19.8	11.4
15	34.9	34.8	34.6	34.1	33.1	32.2	31.3	30.3	29.2	28.2	27.1	24.7	19.1	11.0
16	33.8	33.7	33.5	33.0	32.1	31.2	30.3	29.3	28.3	27.3	26.2	23.9	18.5	10.7
17	32.8	32.7	32.5	32.0	31.1	30.3	29.4	28.4	27.5	26.5	25.4	23.2	18.0	10.4
18	31.9	31.7	31.6	31.1	30.3	29.4	28.5	27.6	26.7	25.7	24.7	22.6	17.5	10.1
19	31.0	30.9	30.7	30.3	29.5	28.6	27.8	26.9	26.0	25.0	24.0	22.0	17.0	9.8
20	30.2	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
21	********	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
22	********	28.7	28.6	28.1	27.4	26.6	25.8	25.0	24.1	23.3	22.3	20.4	15.8	9.1
23	********	28.1	27.9	27.5	26.8	26.0	25.2	24.4	23.6	22.7	21.9	20.0	15.5	8.9
24	********	27.5	27.3	26.9	26.2	25.5	24.7	23.9	23.1	22.3	21.4	19.5	15.1	8.7
25	********	26.9	26.8	26.4	25.7	25.0	24.2	23.4	22.6	21.8	21.0	19.1	14.8	8.6
30	********	24.6	24.5	24.1	23.4	22.8	22.1	21.4	20.7	19.9	19.1	17.5	13.5	7.8
35	********	22.8	22.6	22.3	21.7	21.1	20.5	19.8	19.1	18.4	17.7	16.2	12.5	7.2
40	********	21.3	21.2	20.9	20.3	19.7	19.1	18.5	17.9	17.2	16.6	15.1	11.7	6.8
45	********	20.1	20.0	19.7	19.1	18.6	18.0	17.5	16.9	16.3	15.6	14.3	11.0	6.4
50	********	19.0	18.9	18.7	18.2	17.6	17.1	16.6	16.0	15.4	14.8	13.5	10.5	6.1
55	********	18.2	18.1	17.8	17.3	16.8	16.3	15.8	15.3	14.7	14.1	12.9	10.0	5.8
60	********	17.4	17.3	17.0	16.6	16.1	15.6	15.1	14.6	14.1	13.5	12.4	9.6	5.5
65	********	16.7	16.6	16.4	15.9	15.5	15.0	14.5	14.0	13.5	13.0	11.9	9.2	5.3
70	********	16.1	16.0	15.8	15.3	14.9	14.5	14.0	13.5	13.0	12.5	11.4	8.9	5.1
75	********	15.5	15.5	15.2	14.8	14.4	14.0	13.5	13.1	12.6	12.1	11.0	8.6	4.9
80	********	15.1	15.0	14.7	14.4	13.9	13.5	13.1	12.7	12.2	11.7	10.7	8.3	4.8
85	********	14.6	14.5	14.3	13.9	13.5	13.1	12.7	12.3	11.8	11.4	10.4	8.0	4.6
90	********	14.2	14.1	13.9	13.5	13.2	12.8	12.4	11.9	11.5	11.0	10.1	7.8	4.5
95	********	13.8	13.7	13.5	13.2	12.8	12.4	12.0	11.6	11.2	10.8	9.8	7.6	4.4
100	********	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
125	********	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
150	********	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
200	********	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
250	**********	8.5	8.3	8.1	7.9	7.7	7.4	7.2	6.9	6.6	6.1	4.7	2.7	
300	**********	7.7	7.6	7.4	7.2	7.0	6.8	6.5	6.3	6.1	5.5	4.3	2.5	
350	**********	7.2	7.0	6.9	6.7	6.5	6.3	6.1	5.8	5.6	5.1	4.0	2.3	
400	**********	6.7	6.6	6.4	6.2	6.1	5.9	5.7	5.5	5.2	4.8	3.7	2.1	
450	**********	6.2	6.1	5.9	5.7	5.5	5.3	5.1	4.9	4.5	3.5	2.0		
500	**********	5.9	5.7	5.6	5.4	5.2	5.1	4.9	4.7	4.3	3.3	1.9		
750	**********	4.8	4.7	4.6	4.4	4.3	4.1	4.0	3.8	3.5	2.7	1.6		
1000	**********	4.2	4.1	3.9	3.8	3.7	3.6	3.4	3.3	3.0	2.3	1.4		
1500	**********	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.5	1.9	1.1			
2000	**********	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.1	1.7	1.0			
3000	**********	2.3	2.2	2.1	2.1	2.0	1.9	1.7	1.4	0.8				
4000	**********	1.9	1.9	1.8	1.7	1.7	1.5	1.2	0.7					
5000	**********	1.7	1.6	1.5	1.5	1.4	1.0	0.6						
6000	**********	1.5	1.4	1.4	1.2	1.0	0.6							
7000	**********	1.3	1.3	1.1	0.9	0.5								
8000	**********	1.2	1.1	0.8	0.5									
9000	**********	1.0	0.8	0.5										
10000	**********	1.0	0.7	0.4										
12500	**********	0.7	0.4											
15000	**********	0.3												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Newfoundland and Labrador – Activity level data

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	********	123.5	122.9	121.0	117.8	114.5	111.1	107.5	103.9	100.1	96.2	87.8	68.0	39.3
2	**********		86.9	85.6	83.3	80.9	78.5	76.0	73.5	70.8	68.0	62.1	48.1	27.8
3	**********		71.0	69.9	68.0	66.1	64.1	62.1	60.0	57.8	55.5	50.7	39.3	22.7
4	**********		60.5	58.9	57.2	55.5	53.8	51.9	50.0	48.1	43.9	34.0	19.6	
5	**********		54.1	52.7	51.2	49.7	48.1	46.5	44.8	43.0	39.3	30.4	17.6	
6	**********		49.4	48.1	46.7	45.3	43.9	42.4	40.9	39.3	35.8	27.8	16.0	
7	**********		45.7	44.5	43.3	42.0	40.6	39.3	37.8	36.3	33.2	25.7	14.8	
8	**********			41.6	40.5	39.3	38.0	36.7	35.4	34.0	31.0	24.0	13.9	
9	**********			39.3	38.2	37.0	35.8	34.6	33.4	32.1	29.3	22.7	13.1	
10	**********			37.2	36.2	35.1	34.0	32.8	31.7	30.4	27.8	21.5	12.4	
11	**********			35.5	34.5	33.5	32.4	31.3	30.2	29.0	26.5	20.5	11.8	
12	**********			34.0	33.0	32.1	31.0	30.0	28.9	27.8	25.3	19.6	11.3	
13	**********			32.7	31.7	30.8	29.8	28.8	27.8	26.7	24.3	18.9	10.9	
14	**********			31.5	30.6	29.7	28.7	27.8	26.8	25.7	23.5	18.2	10.5	
15	**********			30.4	29.6	28.7	27.8	26.8	25.8	24.8	22.7	17.6	10.1	
16	**********				28.6	27.8	26.9	26.0	25.0	24.0	21.9	17.0	9.8	
17	**********				27.8	26.9	26.1	25.2	24.3	23.3	21.3	16.5	9.5	
18	**********				27.0	26.2	25.3	24.5	23.6	22.7	20.7	16.0	9.3	
19	**********				26.3	25.5	24.7	23.8	23.0	22.1	20.1	15.6	9.0	
20	**********				25.6	24.8	24.0	23.2	22.4	21.5	19.6	15.2	8.8	
21	**********				25.0	24.2	23.5	22.7	21.8	21.0	19.2	14.8	8.6	
22	**********				24.4	23.7	22.9	22.1	21.3	20.5	18.7	14.5	8.4	
23	**********				23.9	23.2	22.4	21.7	20.9	20.1	18.3	14.2	8.2	
24	**********					22.7	21.9	21.2	20.4	19.6	17.9	13.9	8.0	
25	**********					22.2	21.5	20.8	20.0	19.2	17.6	13.6	7.9	
30	**********					20.3	19.6	19.0	18.3	17.6	16.0	12.4	7.2	
35	**********						18.2	17.6	16.9	16.3	14.8	11.5	6.6	
40	**********							16.4	15.8	15.2	13.9	10.8	6.2	
45	**********							15.5	14.9	14.3	13.1	10.1	5.9	
50	**********								14.2	13.6	12.4	9.6	5.6	
55	**********									13.0	11.8	9.2	5.3	
60	**********									12.4	11.3	8.8	5.1	
65	**********										10.9	8.4	4.9	
70	**********										10.5	8.1	4.7	
75	**********										10.1	7.9	4.5	
80	**********											7.6	4.4	
85	**********											7.4	4.3	
90	**********											7.2	4.1	
95	**********											7.0	4.0	
100	**********											6.8	3.9	
125	**********												3.5	

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Prince Edward Island – Activity level data

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	**********	**********	**********	64.1	62.4	60.6	58.8	57.0	55.0	53.0	51.0	46.5	36.0	20.8
2	**********	**********	**********	44.1	42.9	41.6	40.3	38.9	37.5	36.0	32.9	25.5	14.7	
3	**********	**********	**********	36.0	35.0	34.0	32.9	31.8	30.6	29.4	26.9	20.8	12.0	
4	**********	**********	**********	30.3	29.4	28.5	27.5	26.5	25.5	23.3	18.0	10.4		
5	**********	**********	**********	27.1	26.3	25.5	24.6	23.7	22.8	20.8	16.1	9.3		
6	**********	**********	**********	24.0	23.3	22.5	21.7	20.8	19.0	14.7	8.5			
7	**********	**********	**********	22.2	21.5	20.8	20.0	19.3	17.6	13.6	7.9			
8	**********	**********	**********	20.1	19.5	18.8	18.0	16.4	12.7	7.4				
9	**********	**********	**********	19.0	18.3	17.7	17.0	15.5	12.0	6.9				
10	**********	**********	**********	17.4	16.8	16.1	14.7	11.4	6.6					
11	**********	**********	**********	16.6	16.0	15.4	14.0	10.9	6.3					
12	**********	**********	**********	15.3	14.7	13.4	10.4	6.0						
13	**********	**********	**********	14.7	14.1	12.9	10.0	5.8						
14	**********	**********	**********	13.6	12.4	9.6	5.6							
15	**********	**********	**********	13.2	12.0	9.3	5.4							
16	**********	**********	**********	11.6	9.0	5.2								
17	**********	**********	**********	11.3	8.7	5.0								
18	**********	**********	**********	11.0	8.5	4.9								
19	**********	**********	**********	10.7	8.3	4.8								
20	**********	**********	**********	8.1	4.7									
21	**********	**********	**********	7.9	4.5									
22	**********	**********	**********	7.7	4.4									
23	**********	**********	**********	7.5	4.3									
24	**********	**********	**********	7.4	4.2									
25	**********	**********	**********	7.2	4.2									
30	**********	**********	**********	3.8										
35	**********	**********	**********	3.5										

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Nova Scotia – Activity level data

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	********	133.7	133.0	130.9	127.5	123.9	120.2	116.3	112.4	108.3	104.1	95.0	73.6	42.5
2	********	94.5	94.0	92.6	90.1	87.6	85.0	82.3	79.5	76.6	73.6	67.2	52.0	30.0
3	********	77.2	76.8	75.6	73.6	71.5	69.4	67.2	64.9	62.5	60.1	54.8	42.5	24.5
4	**********	66.5	65.5	63.7	61.9	60.1	58.2	56.2	54.2	52.0	47.5	36.8	21.2	
5	**********	59.5	58.6	57.0	55.4	53.7	52.0	50.3	48.4	46.5	42.5	32.9	19.0	
6	**********	54.3	53.5	52.0	50.6	49.1	47.5	45.9	44.2	42.5	38.8	30.0	17.3	
7	**********	49.5	48.2	46.8	45.4	44.0	42.5	40.9	39.3	35.9	27.8	16.1		
8	**********	46.3	45.1	43.8	42.5	41.1	39.7	38.3	36.8	33.6	26.0	15.0		
9	**********	43.6	42.5	41.3	40.1	38.8	37.5	36.1	34.7	31.7	24.5	14.2		
10	**********	41.4	40.3	39.2	38.0	36.8	35.5	34.3	32.9	30.0	23.3	13.4		
11	**********	39.5	38.4	37.3	36.2	35.1	33.9	32.7	31.4	28.6	22.2	12.8		
12	**********	37.8	36.8	35.8	34.7	33.6	32.4	31.3	30.0	27.4	21.2	12.3		
13	**********	36.3	35.3	34.4	33.3	32.3	31.2	30.0	28.9	26.3	20.4	11.8		
14	**********	35.0	34.1	33.1	32.1	31.1	30.0	28.9	27.8	25.4	19.7	11.4		
15	**********	33.8	32.9	32.0	31.0	30.0	29.0	28.0	26.9	24.5	19.0	11.0		
16	**********	32.7	31.9	31.0	30.0	29.1	28.1	27.1	26.0	23.7	18.4	10.6		
17	**********	30.9	30.0	29.1	28.2	27.3	26.3	25.2	23.0	17.8	10.3			
18	**********	30.0	29.2	28.3	27.4	26.5	25.5	24.5	22.4	17.3	10.0			
19	**********	29.2	28.4	27.6	26.7	25.8	24.8	23.9	21.8	16.9	9.7			
20	**********	28.5	27.7	26.9	26.0	25.1	24.2	23.3	21.2	16.5	9.5			
21	**********	27.8	27.0	26.2	25.4	24.5	23.6	22.7	20.7	16.1	9.3			
22	**********	27.2	26.4	25.6	24.8	24.0	23.1	22.2	20.3	15.7	9.1			
23	**********	26.6	25.8	25.1	24.3	23.4	22.6	21.7	19.8	15.3	8.9			
24	**********	26.0	25.3	24.5	23.7	22.9	22.1	21.2	19.4	15.0	8.7			
25	**********	25.5	24.8	24.0	23.3	22.5	21.7	20.8	19.0	14.7	8.5			
30	**********	23.3	22.6	21.9	21.2	20.5	19.8	19.0	17.3	13.4	7.8			
35	**********	20.9	20.3	19.7	19.0	18.3	17.6	16.1	12.4	7.2				
40	**********	19.6	19.0	18.4	17.8	17.1	16.5	15.0	11.6	6.7				
45	**********	18.5	17.9	17.3	16.8	16.1	15.5	14.2	11.0	6.3				
50	**********	17.0	16.5	15.9	15.3	14.7	13.4	10.4	6.0					
55	**********	16.2	15.7	15.2	14.6	14.0	12.8	9.9	5.7					
60	**********	15.5	15.0	14.5	14.0	13.4	12.3	9.5	5.5					
65	**********	14.9	14.4	13.9	13.4	12.9	11.8	9.1	5.3					
70	**********	13.9	13.4	12.9	12.4	11.4	8.8	5.1						
75	**********	13.4	13.0	12.5	12.0	11.0	8.5	4.9						
80	**********	13.0	12.6	12.1	11.6	10.6	8.2	4.7						
85	**********	12.2	11.7	11.3	10.3	8.0	4.6							
90	**********	11.8	11.4	11.0	10.0	7.8	4.5							
95	**********	11.5	11.1	10.7	9.7	7.5	4.4							
100	**********	10.8	10.4	9.5	7.4	4.2								
125	**********	9.3	8.5	6.6	3.8									
150	**********	7.8	6.0	3.5										
200	**********	5.2	3.0											
250	**********	2.7												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for New Brunswick – Activity level data

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	********	106.9	106.3	104.7	101.9	99.0	96.1	93.0	89.9	86.6	83.2	75.9	58.8	34.0
2	********	75.6	75.2	74.0	72.0	70.0	67.9	65.8	63.5	61.2	58.8	53.7	41.6	24.0
3	**********	61.4	60.4	58.8	57.2	55.5	53.7	51.9	50.0	48.0	43.8	34.0	19.6	
4	**********	53.2	52.3	50.9	49.5	48.0	46.5	44.9	43.3	41.6	38.0	29.4	17.0	
5	**********	46.8	45.6	44.3	43.0	41.6	40.2	38.7	37.2	34.0	26.3	15.2		
6	**********	42.7	41.6	40.4	39.2	38.0	36.7	35.3	34.0	31.0	24.0	13.9		
7	**********	39.6	38.5	37.4	36.3	35.2	34.0	32.7	31.4	28.7	22.2	12.8		
8	**********	37.0	36.0	35.0	34.0	32.9	31.8	30.6	29.4	26.8	20.8	12.0		
9	**********	34.9	34.0	33.0	32.0	31.0	30.0	28.9	27.7	25.3	19.6	11.3		
10	**********	33.1	32.2	31.3	30.4	29.4	28.4	27.4	26.3	24.0	18.6	10.7		
11	**********	30.7	29.9	29.0	28.0	27.1	26.1	25.1	22.9	17.7	10.2			
12	**********	29.4	28.6	27.7	26.8	25.9	25.0	24.0	21.9	17.0	9.8			
13	**********	28.3	27.5	26.6	25.8	24.9	24.0	23.1	21.1	16.3	9.4			
14	**********	27.2	26.5	25.7	24.9	24.0	23.1	22.2	20.3	15.7	9.1			
15	**********	26.3	25.6	24.8	24.0	23.2	22.4	21.5	19.6	15.2	8.8			
16	**********	25.5	24.8	24.0	23.3	22.5	21.6	20.8	19.0	14.7	8.5			
17	**********	24.7	24.0	23.3	22.6	21.8	21.0	20.2	18.4	14.3	8.2			
18	**********	24.0	23.3	22.6	21.9	21.2	20.4	19.6	17.9	13.9	8.0			
19	**********	23.4	22.7	22.0	21.3	20.6	19.9	19.1	17.4	13.5	7.8			
20	**********	22.8	22.1	21.5	20.8	20.1	19.4	18.6	17.0	13.2	7.6			
21	**********	22.2	21.6	21.0	20.3	19.6	18.9	18.2	16.6	12.8	7.4			
22	**********	21.1	20.5	19.8	19.2	18.5	17.7	16.2	12.5	7.2				
23	**********	20.6	20.0	19.4	18.7	18.1	17.3	15.8	12.3	7.1				
24	**********	20.2	19.6	19.0	18.3	17.7	17.0	15.5	12.0	6.9				
25	**********	19.8	19.2	18.6	18.0	17.3	16.6	15.2	11.8	6.8				
30	**********	18.1	17.5	17.0	16.4	15.8	15.2	13.9	10.7	6.2				
35	**********	16.2	15.7	15.2	14.6	14.1	12.8	9.9	5.7					
40	**********	15.2	14.7	14.2	13.7	13.2	12.0	9.3	5.4					
45	**********	13.9	13.4	12.9	12.4	11.3	8.8	5.1						
50	**********	13.2	12.7	12.2	11.8	10.7	8.3	4.8						
55	**********	12.1	11.7	11.2	10.2	7.9	4.6							
60	**********	11.6	11.2	10.7	9.8	7.6	4.4							
65	**********	11.1	10.7	10.3	9.4	7.3	4.2							
70	**********	10.3	9.9	9.1	7.0	4.1								
75	**********	10.0	9.6	8.8	6.8	3.9								
80	**********	9.3	8.5	6.6	3.8									
85	**********	9.0	8.2	6.4	3.7									
90	**********	8.0	6.2	3.6										
95	**********	7.8	6.0	3.5										
100	**********	7.6	5.9	3.4										
125	**********	5.3	3.0											
150	**********	4.8	2.8											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Quebec – Activity level data

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	235.2	234.1	232.9	229.3	223.2	216.9	210.5	203.8	196.9	189.7	182.3	166.4	128.9	74.4
2	********	165.5	164.7	162.2	157.8	153.4	148.8	144.1	139.2	134.1	128.9	117.6	91.1	52.6
3	********	135.2	134.5	132.4	128.9	125.2	121.5	117.6	113.7	109.5	105.2	96.1	74.4	43.0
4	********	117.1	116.5	114.7	111.6	108.5	105.2	101.9	98.4	94.9	91.1	83.2	64.4	37.2
5	********	104.7	104.2	102.6	99.8	97.0	94.1	91.1	88.0	84.8	81.5	74.4	57.6	33.3
6	********	95.6	95.1	93.6	91.1	88.6	85.9	83.2	80.4	77.4	74.4	67.9	52.6	30.4
7	********	88.5	88.0	86.7	84.4	82.0	79.5	77.0	74.4	71.7	68.9	62.9	48.7	28.1
8	********	82.8	82.4	81.1	78.9	76.7	74.4	72.0	69.6	67.1	64.4	58.8	45.6	26.3
9	********	78.0	77.6	76.4	74.4	72.3	70.2	67.9	65.6	63.2	60.8	55.5	43.0	24.8
10	********	74.0	73.7	72.5	70.6	68.6	66.6	64.4	62.3	60.0	57.6	52.6	40.8	23.5
11	********	70.6	70.2	69.1	67.3	65.4	63.5	61.4	59.4	57.2	55.0	50.2	38.9	22.4
12	********	67.6	67.2	66.2	64.4	62.6	60.8	58.8	56.8	54.8	52.6	48.0	37.2	21.5
13	********	64.9	64.6	63.6	61.9	60.2	58.4	56.5	54.6	52.6	50.5	46.1	35.7	20.6
14	********	62.6	62.3	61.3	59.7	58.0	56.2	54.5	52.6	50.7	48.7	44.5	34.4	19.9
15	********	60.4	60.1	59.2	57.6	56.0	54.3	52.6	50.8	49.0	47.1	43.0	33.3	19.2
16	********	58.5	58.2	57.3	55.8	54.2	52.6	50.9	49.2	47.4	45.6	41.6	32.2	18.6
17	********	56.8	56.5	55.6	54.1	52.6	51.0	49.4	47.7	46.0	44.2	40.4	31.3	18.0
18	********	55.2	54.9	54.1	52.6	51.1	49.6	48.0	46.4	44.7	43.0	39.2	30.4	17.5
19	********	53.7	53.4	52.6	51.2	49.8	48.3	46.7	45.2	43.5	41.8	38.2	29.6	17.1
20	**********	52.1	51.3	49.9	48.5	47.1	45.6	44.0	42.4	40.8	37.2	28.8	16.6	
21	**********	50.8	50.0	48.7	47.3	45.9	44.5	43.0	41.4	39.8	36.3	28.1	16.2	
22	**********	49.7	48.9	47.6	46.3	44.9	43.4	42.0	40.4	38.9	35.5	27.5	15.9	
23	**********	48.6	47.8	46.5	45.2	43.9	42.5	41.0	39.6	38.0	34.7	26.9	15.5	
24	**********	47.5	46.8	45.6	44.3	43.0	41.6	40.2	38.7	37.2	34.0	26.3	15.2	
25	**********	46.6	45.9	44.6	43.4	42.1	40.8	39.4	37.9	36.5	33.3	25.8	14.9	
30	**********	42.5	41.9	40.8	39.6	38.4	37.2	35.9	34.6	33.3	30.4	23.5	13.6	
35	**********	39.4	38.8	37.7	36.7	35.6	34.4	33.3	32.1	30.8	28.1	21.8	12.6	
40	**********	36.3	35.3	34.3	33.3	32.2	31.1	30.0	28.8	26.3	20.4	11.8		
45	**********	34.2	33.3	32.3	31.4	30.4	29.3	28.3	27.2	24.8	19.2	11.1		
50	**********	32.4	31.6	30.7	29.8	28.8	27.8	26.8	25.8	23.5	18.2	10.5		
55	**********	30.9	30.1	29.3	28.4	27.5	26.5	25.6	24.6	22.4	17.4	10.0		
60	**********	29.6	28.8	28.0	27.2	26.3	25.4	24.5	23.5	21.5	16.6	9.6		
65	**********	28.4	27.7	26.9	26.1	25.3	24.4	23.5	22.6	20.6	16.0	9.2		
70	**********	27.4	26.7	25.9	25.2	24.4	23.5	22.7	21.8	19.9	15.4	8.9		
75	**********	26.5	25.8	25.0	24.3	23.5	22.7	21.9	21.0	19.2	14.9	8.6		
80	**********	25.6	25.0	24.3	23.5	22.8	22.0	21.2	20.4	18.6	14.4	8.3		
85	**********	24.9	24.2	23.5	22.8	22.1	21.4	20.6	19.8	18.0	14.0	8.1		
90	**********	24.2	23.5	22.9	22.2	21.5	20.8	20.0	19.2	17.5	13.6	7.8		
95	**********	23.5	22.9	22.3	21.6	20.9	20.2	19.5	18.7	17.1	13.2	7.6		
100	**********	22.3	21.7	21.0	20.4	19.7	19.0	18.2	16.6	12.9	7.4			
125	**********	20.0	19.4	18.8	18.2	17.6	17.0	16.3	14.9	11.5	6.7			
150	**********	18.2	17.7	17.2	16.6	16.1	15.5	14.9	13.6	10.5	6.1			
200	**********	15.3	14.9	14.4	13.9	13.4	12.9	11.8	9.1	5.3				
250	**********	13.7	13.3	12.9	12.5	12.0	11.5	10.5	8.2	4.7				
300	**********	12.2	11.8	11.4	11.0	10.5	9.6	7.4	4.3					
350	**********	11.2	10.9	10.5	10.1	9.7	8.9	6.9	4.0					
400	**********	10.2	9.8	9.5	9.1	8.3	6.4	3.7						
450	**********	9.6	9.3	8.9	8.6	7.8	6.1	3.5						
500	**********	8.8	8.5	8.2	7.4	5.8	3.3							
750	**********	6.7	6.1	4.7	2.7									
1000	**********	4.1	2.4											
1500	**********	1.9												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Ontario – Activity level data

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	251.7	250.6	249.3	245.5	238.9	232.2	225.3	218.1	210.7	203.1	195.1	178.1	138.0	79.6
2	178.0	177.2	176.3	173.6	169.0	164.2	159.3	154.2	149.0	143.6	138.0	125.9	97.6	56.3
3	145.3	144.7	144.0	141.7	138.0	134.1	130.1	125.9	121.7	117.2	112.6	102.8	79.6	46.0
4	125.9	125.3	124.7	122.7	119.5	116.1	112.6	109.1	105.4	101.5	97.6	89.1	69.0	39.8
5	********	112.1	111.5	109.8	106.9	103.9	100.7	97.6	94.2	90.8	87.3	79.6	61.7	35.6
6	********	102.3	101.8	100.2	97.6	94.8	92.0	89.1	86.0	82.9	79.6	72.7	56.3	32.5
7	********	94.7	94.2	92.8	90.3	87.8	85.1	82.4	79.6	76.8	73.7	67.3	52.1	30.1
8	********	88.6	88.2	86.8	84.5	82.1	79.6	77.1	74.5	71.8	69.0	63.0	48.8	28.2
9	********	83.5	83.1	81.8	79.6	77.4	75.1	72.7	70.2	67.7	65.0	59.4	46.0	26.5
10	********	79.3	78.8	77.6	75.6	73.4	71.2	69.0	66.6	64.2	61.7	56.3	43.6	25.2
11	********	75.6	75.2	74.0	72.0	70.0	67.9	65.8	63.5	61.2	58.8	53.7	41.6	24.0
12	********	72.3	72.0	70.9	69.0	67.0	65.0	63.0	60.8	58.6	56.3	51.4	39.8	23.0
13	********	69.5	69.2	68.1	66.3	64.4	62.5	60.5	58.4	56.3	54.1	49.4	38.3	22.1
14	********	67.0	66.6	65.6	63.9	62.1	60.2	58.3	56.3	54.3	52.1	47.6	36.9	21.3
15	********	64.7	64.4	63.4	61.7	60.0	58.2	56.3	54.4	52.4	50.4	46.0	35.6	20.6
16	********	62.7	62.3	61.4	59.7	58.1	56.3	54.5	52.7	50.8	48.8	44.5	34.5	19.9
17	********	60.8	60.5	59.5	58.0	56.3	54.6	52.9	51.1	49.3	47.3	43.2	33.5	19.3
18	********	59.1	58.8	57.9	56.3	54.7	53.1	51.4	49.7	47.9	46.0	42.0	32.5	18.8
19	********	57.5	57.2	56.3	54.8	53.3	51.7	50.0	48.3	46.6	44.8	40.9	31.6	18.3
20	********	56.0	55.8	54.9	53.4	51.9	50.4	48.8	47.1	45.4	43.6	39.8	30.8	17.8
21	********	54.7	54.4	53.6	52.1	50.7	49.2	47.6	46.0	44.3	42.6	38.9	30.1	17.4
22	********	53.4	53.2	52.3	50.9	49.5	48.0	46.5	44.9	43.3	41.6	38.0	29.4	17.0
23	********	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
24	********	51.2	50.9	50.1	48.8	47.4	46.0	44.5	43.0	41.5	39.8	36.4	28.2	16.3
25	********	50.1	49.9	49.1	47.8	46.4	45.1	43.6	42.1	40.6	39.0	35.6	27.6	15.9
30	********	45.8	45.5	44.8	43.6	42.4	41.1	39.8	38.5	37.1	35.6	32.5	25.2	14.5
35	********	42.4	42.1	41.5	40.4	39.3	38.1	36.9	35.6	34.3	33.0	30.1	23.3	13.5
40	********	39.6	39.4	38.8	37.8	36.7	35.6	34.5	33.3	32.1	30.8	28.2	21.8	12.6
45	**********	37.2	36.6	35.6	34.6	33.6	32.5	31.4	30.3	29.1	26.5	20.6	11.9	
50	**********	35.3	34.7	33.8	32.8	31.9	30.8	29.8	28.7	27.6	25.2	19.5	11.3	
55	**********	33.6	33.1	32.2	31.3	30.4	29.4	28.4	27.4	26.3	24.0	18.6	10.7	
60	**********	32.2	31.7	30.8	30.0	29.1	28.2	27.2	26.2	25.2	23.0	17.8	10.3	
65	**********	30.9	30.5	29.6	28.8	27.9	27.1	26.1	25.2	24.2	22.1	17.1	9.9	
70	**********	29.8	29.3	28.6	27.8	26.9	26.1	25.2	24.3	23.3	21.3	16.5	9.5	
75	**********	28.8	28.3	27.6	26.8	26.0	25.2	24.3	23.4	22.5	20.6	15.9	9.2	
80	**********	27.9	27.4	26.7	26.0	25.2	24.4	23.6	22.7	21.8	19.9	15.4	8.9	
85	**********	27.0	26.6	25.9	25.2	24.4	23.7	22.9	22.0	21.2	19.3	15.0	8.6	
90	**********	25.9	25.2	24.5	23.7	23.0	22.2	21.4	20.6	18.8	14.5	8.4		
95	**********	25.2	24.5	23.8	23.1	22.4	21.6	20.8	20.0	18.3	14.2	8.2		
100	**********	24.5	23.9	23.2	22.5	21.8	21.1	20.3	19.5	17.8	13.8	8.0		
125	**********	22.0	21.4	20.8	20.1	19.5	18.8	18.2	17.5	15.9	12.3	7.1		
150	**********	20.0	19.5	19.0	18.4	17.8	17.2	16.6	15.9	14.5	11.3	6.5		
200	**********	17.4	16.9	16.4	15.9	15.4	14.9	14.4	13.8	12.6	9.8	5.6		
250	**********	15.1	14.7	14.2	13.8	13.3	12.8	12.3	11.3	8.7	5.0			
300	**********	13.8	13.4	13.0	12.6	12.2	11.7	11.3	10.3	8.0	4.6			
350	**********	12.8	12.4	12.0	11.7	11.3	10.9	10.4	9.5	7.4	4.3			
400	**********	11.9	11.6	11.3	10.9	10.5	10.2	9.8	8.9	6.9	4.0			
450	**********	10.9	10.6	10.3	9.9	9.6	9.2	8.4	6.5	3.8				
500	**********	10.4	10.1	9.8	9.4	9.1	8.7	8.0	6.2	3.6				
750	**********	8.2	8.0	7.7	7.4	7.1	6.5	5.0	2.9					
1000	**********	6.9	6.7	6.4	6.2	5.6	4.4	2.5						
1500	**********	5.2	5.0	4.6	3.6	2.1								
2000	**********	4.0	3.1	1.8										
3000	**********	2.5	1.5											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Manitoba – Activity level data

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	********	125.3	124.7	122.7	119.5	116.1	112.6	109.0	105.4	101.5	97.5	89.0	69.0	39.8
2	********	88.6	88.1	86.8	84.5	82.1	79.6	77.1	74.5	71.8	69.0	63.0	48.8	28.2
3	********	72.3	72.0	70.9	69.0	67.0	65.0	63.0	60.8	58.6	56.3	51.4	39.8	23.0
4	********	62.6	62.3	61.4	59.7	58.0	56.3	54.5	52.7	50.8	48.8	44.5	34.5	19.9
5	**********		55.7	54.9	53.4	51.9	50.4	48.8	47.1	45.4	43.6	39.8	30.8	17.8
6	**********		50.9	50.1	48.8	47.4	46.0	44.5	43.0	41.4	39.8	36.3	28.2	16.3
7	**********		47.1	46.4	45.2	43.9	42.6	41.2	39.8	38.4	36.9	33.7	26.1	15.1
8	**********		44.1	43.4	42.2	41.0	39.8	38.6	37.2	35.9	34.5	31.5	24.4	14.1
9	**********		40.9	39.8	38.7	37.5	36.3	35.1	33.8	32.5	29.7	23.0	13.3	
10	**********		38.8	37.8	36.7	35.6	34.5	33.3	32.1	30.8	28.2	21.8	12.6	
11	**********		37.0	36.0	35.0	34.0	32.9	31.8	30.6	29.4	26.8	20.8	12.0	
12	**********		35.4	34.5	33.5	32.5	31.5	30.4	29.3	28.2	25.7	19.9	11.5	
13	**********		34.0	33.1	32.2	31.2	30.2	29.2	28.2	27.1	24.7	19.1	11.0	
14	**********		32.8	31.9	31.0	30.1	29.1	28.2	27.1	26.1	23.8	18.4	10.6	
15	**********		31.7	30.8	30.0	29.1	28.2	27.2	26.2	25.2	23.0	17.8	10.3	
16	**********		30.7	29.9	29.0	28.2	27.3	26.3	25.4	24.4	22.3	17.2	10.0	
17	**********		29.8	29.0	28.2	27.3	26.4	25.6	24.6	23.7	21.6	16.7	9.7	
18	**********		28.9	28.2	27.4	26.5	25.7	24.8	23.9	23.0	21.0	16.3	9.4	
19	**********		28.2	27.4	26.6	25.8	25.0	24.2	23.3	22.4	20.4	15.8	9.1	
20	**********		27.4	26.7	26.0	25.2	24.4	23.6	22.7	21.8	19.9	15.4	8.9	
21	**********			26.1	25.3	24.6	23.8	23.0	22.2	21.3	19.4	15.1	8.7	
22	**********			25.5	24.8	24.0	23.2	22.5	21.6	20.8	19.0	14.7	8.5	
23	**********			24.9	24.2	23.5	22.7	22.0	21.2	20.3	18.6	14.4	8.3	
24	**********			24.4	23.7	23.0	22.3	21.5	20.7	19.9	18.2	14.1	8.1	
25	**********			23.9	23.2	22.5	21.8	21.1	20.3	19.5	17.8	13.8	8.0	
30	**********			21.8	21.2	20.6	19.9	19.2	18.5	17.8	16.3	12.6	7.3	
35	**********			20.2	19.6	19.0	18.4	17.8	17.2	16.5	15.1	11.7	6.7	
40	**********			18.9	18.4	17.8	17.2	16.7	16.1	15.4	14.1	10.9	6.3	
45	**********				17.3	16.8	16.3	15.7	15.1	14.5	13.3	10.3	5.9	
50	**********				16.4	15.9	15.4	14.9	14.4	13.8	12.6	9.8	5.6	
55	**********				15.7	15.2	14.7	14.2	13.7	13.2	12.0	9.3	5.4	
60	**********				15.0	14.5	14.1	13.6	13.1	12.6	11.5	8.9	5.1	
65	**********					14.0	13.5	13.1	12.6	12.1	11.0	8.6	4.9	
70	**********					13.5	13.0	12.6	12.1	11.7	10.6	8.2	4.8	
75	**********					13.0	12.6	12.2	11.7	11.3	10.3	8.0	4.6	
80	**********					12.6	12.2	11.8	11.4	10.9	10.0	7.7	4.5	
85	**********						11.8	11.4	11.0	10.6	9.7	7.5	4.3	
90	**********						11.5	11.1	10.7	10.3	9.4	7.3	4.2	
95	**********						11.2	10.8	10.4	10.0	9.1	7.1	4.1	
100	**********						10.9	10.5	10.2	9.8	8.9	6.9	4.0	
125	**********								9.1	8.7	8.0	6.2	3.6	
150	**********									8.0	7.3	5.6	3.3	
200	**********										6.3	4.9	2.8	
250	**********											4.4	2.5	
300	**********												2.3	
350	**********												2.1	

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Saskatchewan – Activity level data

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	********	110.2	109.6	107.9	105.0	102.1	99.0	95.9	92.6	89.3	85.8	78.3	60.6	35.0
2	********	77.9	77.5	76.3	74.3	72.2	70.0	67.8	65.5	63.1	60.6	55.4	42.9	24.8
3	********	63.6	63.3	62.3	60.6	58.9	57.2	55.4	53.5	51.5	49.5	45.2	35.0	20.2
4	**********	54.8	54.0	52.5	51.0	49.5	47.9	46.3	44.6	42.9	39.1	30.3	17.5	
5	**********	49.0	48.3	47.0	45.7	44.3	42.9	41.4	39.9	38.4	35.0	27.1	15.7	
6	**********	44.7	44.1	42.9	41.7	40.4	39.1	37.8	36.4	35.0	32.0	24.8	14.3	
7	**********	40.8	39.7	38.6	37.4	36.2	35.0	33.7	32.4	29.6	22.9	13.2		
8	**********	38.2	37.1	36.1	35.0	33.9	32.8	31.6	30.3	27.7	21.4	12.4		
9	**********	36.0	35.0	34.0	33.0	32.0	30.9	29.8	28.6	26.1	20.2	11.7		
10	**********	34.1	33.2	32.3	31.3	30.3	29.3	28.2	27.1	24.8	19.2	11.1		
11	**********	32.5	31.7	30.8	29.9	28.9	27.9	26.9	25.9	23.6	18.3	10.6		
12	**********	31.2	30.3	29.5	28.6	27.7	26.7	25.8	24.8	22.6	17.5	10.1		
13	**********	29.9	29.1	28.3	27.5	26.6	25.7	24.8	23.8	21.7	16.8	9.7		
14	**********	28.8	28.1	27.3	26.5	25.6	24.8	23.9	22.9	20.9	16.2	9.4		
15	**********	27.9	27.1	26.4	25.6	24.8	23.9	23.0	22.1	20.2	15.7	9.0		
16	**********	27.0	26.3	25.5	24.8	24.0	23.2	22.3	21.4	19.6	15.2	8.8		
17	**********	26.2	25.5	24.8	24.0	23.3	22.5	21.7	20.8	19.0	14.7	8.5		
18	**********	24.8	24.1	23.3	22.6	21.8	21.0	20.2	18.5	14.3	8.3			
19	**********	24.1	23.4	22.7	22.0	21.3	20.5	19.7	18.0	13.9	8.0			
20	**********	23.5	22.8	22.1	21.4	20.7	20.0	19.2	17.5	13.6	7.8			
21	**********	22.9	22.3	21.6	20.9	20.2	19.5	18.7	17.1	13.2	7.6			
22	**********	22.4	21.8	21.1	20.4	19.7	19.0	18.3	16.7	12.9	7.5			
23	**********	21.9	21.3	20.6	20.0	19.3	18.6	17.9	16.3	12.6	7.3			
24	**********	21.4	20.8	20.2	19.6	18.9	18.2	17.5	16.0	12.4	7.1			
25	**********	21.0	20.4	19.8	19.2	18.5	17.9	17.2	15.7	12.1	7.0			
30	**********	19.2	18.6	18.1	17.5	16.9	16.3	15.7	14.3	11.1	6.4			
35	**********	17.3	16.7	16.2	15.7	15.1	14.5	13.2	10.3	5.9				
40	**********	16.1	15.7	15.2	14.6	14.1	13.6	12.4	9.6	5.5				
45	**********	15.2	14.8	14.3	13.8	13.3	12.8	11.7	9.0	5.2				
50	**********	14.4	14.0	13.6	13.1	12.6	12.1	11.1	8.6	5.0				
55	**********	13.4	12.9	12.5	12.0	11.6	10.6	8.2	4.7					
60	**********	12.8	12.4	12.0	11.5	11.1	10.1	7.8	4.5					
65	**********	12.3	11.9	11.5	11.1	10.6	9.7	7.5	4.3					
70	**********	11.5	11.1	10.7	10.3	9.4	7.2	4.2						
75	**********	11.1	10.7	10.3	9.9	9.0	7.0	4.0						
80	**********	10.7	10.4	10.0	9.6	8.8	6.8	3.9						
85	**********	10.4	10.0	9.7	9.3	8.5	6.6	3.8						
90	**********	9.8	9.4	9.0	8.3	6.4	3.7							
95	**********	9.5	9.2	8.8	8.0	6.2	3.6							
100	**********	9.3	8.9	8.6	7.8	6.1	3.5							
125	**********	7.7	7.0	5.4	3.1									
150	**********	6.4	5.0	2.9										
200	**********	4.3	2.5											
250	**********	2.2												
300	**********	2.0												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Alberta – Activity level data

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	178.8	178.0	177.1	174.4	169.7	165.0	160.0	155.0	149.7	144.3	138.6	126.5	98.0	56.6
2	********	125.9	125.2	123.3	120.0	116.6	113.2	109.6	105.9	102.0	98.0	89.5	69.3	40.0
3	********	102.8	102.3	100.7	98.0	95.2	92.4	89.5	86.4	83.3	80.0	73.0	56.6	32.7
4	********	89.0	88.6	87.2	84.9	82.5	80.0	77.5	74.9	72.1	69.3	63.3	49.0	28.3
5	********	79.6	79.2	78.0	75.9	73.8	71.6	69.3	66.9	64.5	62.0	56.6	43.8	25.3
6	********	72.7	72.3	71.2	69.3	67.3	65.3	63.3	61.1	58.9	56.6	51.7	40.0	23.1
7	********	67.3	66.9	65.9	64.2	62.4	60.5	58.6	56.6	54.5	52.4	47.8	37.0	21.4
8	********	62.9	62.6	61.7	60.0	58.3	56.6	54.8	52.9	51.0	49.0	44.7	34.6	20.0
9	********	59.3	59.0	58.1	56.6	55.0	53.3	51.7	49.9	48.1	46.2	42.2	32.7	18.9
10	********	56.3	56.0	55.1	53.7	52.2	50.6	49.0	47.3	45.6	43.8	40.0	31.0	17.9
11	********	53.7	53.4	52.6	51.2	49.7	48.3	46.7	45.1	43.5	41.8	38.1	29.5	17.1
12	**********	51.1	50.3	49.0	47.6	46.2	44.7	43.2	41.6	40.0	36.5	28.3	16.3	
13	**********	49.1	48.4	47.1	45.8	44.4	43.0	41.5	40.0	38.4	35.1	27.2	15.7	
14	**********	47.3	46.6	45.4	44.1	42.8	41.4	40.0	38.6	37.0	33.8	26.2	15.1	
15	**********	45.7	45.0	43.8	42.6	41.3	40.0	38.7	37.2	35.8	32.7	25.3	14.6	
16	**********	44.3	43.6	42.4	41.2	40.0	38.7	37.4	36.1	34.6	31.6	24.5	14.1	
17	**********	43.0	42.3	41.2	40.0	38.8	37.6	36.3	35.0	33.6	30.7	23.8	13.7	
18	**********	41.7	41.1	40.0	38.9	37.7	36.5	35.3	34.0	32.7	29.8	23.1	13.3	
19	**********	40.6	40.0	38.9	37.8	36.7	35.5	34.3	33.1	31.8	29.0	22.5	13.0	
20	**********	39.6	39.0	38.0	36.9	35.8	34.6	33.5	32.3	31.0	28.3	21.9	12.7	
21	**********	38.7	38.1	37.0	36.0	34.9	33.8	32.7	31.5	30.2	27.6	21.4	12.3	
22	**********	37.8	37.2	36.2	35.2	34.1	33.0	31.9	30.8	29.5	27.0	20.9	12.1	
23	**********	36.4	35.4	34.4	33.4	32.3	31.2	30.1	28.9	26.4	20.4	11.8		
24	**********	35.6	34.6	33.7	32.7	31.6	30.6	29.4	28.3	25.8	20.0	11.5		
25	**********	34.9	33.9	33.0	32.0	31.0	29.9	28.9	27.7	25.3	19.6	11.3		
30	**********	31.8	31.0	30.1	29.2	28.3	27.3	26.3	25.3	23.1	17.9	10.3		
35	**********	29.5	28.7	27.9	27.1	26.2	25.3	24.4	23.4	21.4	16.6	9.6		
40	**********	27.6	26.8	26.1	25.3	24.5	23.7	22.8	21.9	20.0	15.5	8.9		
45	**********	26.0	25.3	24.6	23.9	23.1	22.3	21.5	20.7	18.9	14.6	8.4		
50	**********	24.7	24.0	23.3	22.6	21.9	21.2	20.4	19.6	17.9	13.9	8.0		
55	**********	23.5	22.9	22.2	21.6	20.9	20.2	19.5	18.7	17.1	13.2	7.6		
60	**********	21.9	21.3	20.7	20.0	19.3	18.6	17.9	16.3	12.7	7.3			
65	**********	21.1	20.5	19.9	19.2	18.6	17.9	17.2	15.7	12.2	7.0			
70	**********	20.3	19.7	19.1	18.5	17.9	17.2	16.6	15.1	11.7	6.8			
75	**********	19.6	19.0	18.5	17.9	17.3	16.7	16.0	14.6	11.3	6.5			
80	**********	19.0	18.4	17.9	17.3	16.7	16.1	15.5	14.1	11.0	6.3			
85	**********	18.4	17.9	17.4	16.8	16.2	15.6	15.0	13.7	10.6	6.1			
90	**********	17.9	17.4	16.9	16.3	15.8	15.2	14.6	13.3	10.3	6.0			
95	**********	17.4	16.9	16.4	15.9	15.4	14.8	14.2	13.0	10.1	5.8			
100	**********	17.0	16.5	16.0	15.5	15.0	14.4	13.9	12.7	9.8	5.7			
125	**********	14.8	14.3	13.9	13.4	12.9	12.4	11.3	8.8	5.1				
150	**********	13.5	13.1	12.7	12.2	11.8	11.3	10.3	8.0	4.6				
200	**********	11.3	11.0	10.6	10.2	9.8	8.9	6.9	4.0					
250	**********	9.8	9.5	9.1	8.8	8.0	6.2	3.6						
300	**********	8.6	8.3	8.0	7.3	5.7	3.3							
350	**********	7.7	7.4	6.8	5.2	3.0								
400	**********	6.9	6.3	4.9	2.8									
450	**********	6.0	4.6	2.7										
500	**********	5.7	4.4	2.5										
750	**********	3.6	2.1											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for British Columbia – Activity level data

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	246.4	245.2	244.0	240.2	233.8	227.2	220.5	213.5	206.2	198.7	190.9	174.3	135.0	77.9
2	********	173.4	172.5	169.9	165.3	160.7	155.9	150.9	145.8	140.5	135.0	123.2	95.5	55.1
3	********	141.6	140.9	138.7	135.0	131.2	127.3	123.2	119.1	114.7	110.2	100.6	77.9	45.0
4	********	122.6	122.0	120.1	116.9	113.6	110.2	106.7	103.1	99.4	95.5	87.1	67.5	39.0
5	********	109.7	109.1	107.4	104.6	101.6	98.6	95.5	92.2	88.9	85.4	77.9	60.4	34.9
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
7	********	92.7	92.2	90.8	88.4	85.9	83.3	80.7	77.9	75.1	72.2	65.9	51.0	29.5
8	********	86.7	86.3	84.9	82.7	80.3	77.9	75.5	72.9	70.3	67.5	61.6	47.7	27.6
9	********	81.7	81.3	80.1	77.9	75.7	73.5	71.2	68.7	66.2	63.6	58.1	45.0	26.0
10	********	77.6	77.2	76.0	73.9	71.9	69.7	67.5	65.2	62.8	60.4	55.1	42.7	24.6
11	********	73.9	73.6	72.4	70.5	68.5	66.5	64.4	62.2	59.9	57.6	52.5	40.7	23.5
12	********	70.8	70.4	69.3	67.5	65.6	63.6	61.6	59.5	57.4	55.1	50.3	39.0	22.5
13	********	68.0	67.7	66.6	64.9	63.0	61.1	59.2	57.2	55.1	53.0	48.3	37.4	21.6
14	********	65.5	65.2	64.2	62.5	60.7	58.9	57.0	55.1	53.1	51.0	46.6	36.1	20.8
15	********	63.3	63.0	62.0	60.4	58.7	56.9	55.1	53.2	51.3	49.3	45.0	34.9	20.1
16	**********	61.0	60.1	58.5	56.8	55.1	53.4	51.6	49.7	47.7	43.6	33.8	19.5	
17	**********	59.2	58.3	56.7	55.1	53.5	51.8	50.0	48.2	46.3	42.3	32.7	18.9	
18	**********	57.5	56.6	55.1	53.6	52.0	50.3	48.6	46.8	45.0	41.1	31.8	18.4	
19	**********	56.0	55.1	53.6	52.1	50.6	49.0	47.3	45.6	43.8	40.0	31.0	17.9	
20	**********	54.6	53.7	52.3	50.8	49.3	47.7	46.1	44.4	42.7	39.0	30.2	17.4	
21	**********	53.2	52.4	51.0	49.6	48.1	46.6	45.0	43.4	41.7	38.0	29.5	17.0	
22	**********	52.0	51.2	49.9	48.4	47.0	45.5	44.0	42.4	40.7	37.2	28.8	16.6	
23	**********	50.9	50.1	48.8	47.4	46.0	44.5	43.0	41.4	39.8	36.3	28.1	16.3	
24	**********	49.8	49.0	47.7	46.4	45.0	43.6	42.1	40.6	39.0	35.6	27.6	15.9	
25	**********	48.8	48.0	46.8	45.4	44.1	42.7	41.2	39.7	38.2	34.9	27.0	15.6	
30	**********	44.5	43.9	42.7	41.5	40.2	39.0	37.6	36.3	34.9	31.8	24.6	14.2	
35	**********	40.6	39.5	38.4	37.3	36.1	34.9	33.6	32.3	29.5	22.8	13.2		
40	**********	38.0	37.0	35.9	34.9	33.8	32.6	31.4	30.2	27.6	21.3	12.3		
45	**********	35.8	34.9	33.9	32.9	31.8	30.7	29.6	28.5	26.0	20.1	11.6		
50	**********	34.0	33.1	32.1	31.2	30.2	29.2	28.1	27.0	24.6	19.1	11.0		
55	**********	32.4	31.5	30.6	29.7	28.8	27.8	26.8	25.7	23.5	18.2	10.5		
60	**********	31.0	30.2	29.3	28.5	27.6	26.6	25.7	24.6	22.5	17.4	10.1		
65	**********	29.8	29.0	28.2	27.3	26.5	25.6	24.6	23.7	21.6	16.7	9.7		
70	**********	28.7	27.9	27.2	26.3	25.5	24.6	23.8	22.8	20.8	16.1	9.3		
75	**********	27.7	27.0	26.2	25.5	24.6	23.8	22.9	22.0	20.1	15.6	9.0		
80	**********	26.1	25.4	24.6	23.9	23.1	22.2	21.3	19.5	15.1	8.7			
85	**********	25.4	24.6	23.9	23.2	22.4	21.6	20.7	18.9	14.6	8.5			
90	**********	24.6	24.0	23.2	22.5	21.7	20.9	20.1	18.4	14.2	8.2			
95	**********	24.0	23.3	22.6	21.9	21.2	20.4	19.6	17.9	13.9	8.0			
100	**********	23.4	22.7	22.0	21.3	20.6	19.9	19.1	17.4	13.5	7.8			
125	**********	20.9	20.3	19.7	19.1	18.4	17.8	17.1	15.6	12.1	7.0			
150	**********	19.1	18.6	18.0	17.4	16.8	16.2	15.6	14.2	11.0	6.4			
200	**********	16.1	15.6	15.1	14.6	14.1	13.5	12.3	9.5	5.5				
250	**********	13.9	13.5	13.0	12.6	12.1	11.0	8.5	4.9					
300	**********	12.7	12.3	11.9	11.5	11.0	10.1	7.8	4.5					
350	**********	11.4	11.0	10.6	10.2	9.3	7.2	4.2						
400	**********	10.3	9.9	9.5	8.7	6.8	3.9							
450	**********	9.7	9.4	9.0	8.2	6.4	3.7							
500	**********	8.9	8.5	7.8	6.0	3.5								
750	**********	6.4	4.9	2.8										
1000	**********	4.3	2.5											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Atlantic Provinces – Activity level data

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	********	121.6	121.0	119.1	116.0	112.7	109.3	105.9	102.3	98.5	94.7	86.4	66.9	38.7
2	********	86.0	85.6	84.2	82.0	79.7	77.3	74.9	72.3	69.7	66.9	61.1	47.3	27.3
3	********	70.2	69.9	68.8	66.9	65.1	63.1	61.1	59.0	56.9	54.7	49.9	38.7	22.3
4	********	60.8	60.5	59.6	58.0	56.3	54.7	52.9	51.1	49.3	47.3	43.2	33.5	19.3
5	********	54.4	54.1	53.3	51.9	50.4	48.9	47.3	45.7	44.1	42.3	38.7	29.9	17.3
6	********	49.7	49.4	48.6	47.3	46.0	44.6	43.2	41.8	40.2	38.7	35.3	27.3	15.8
7	********	46.0	45.7	45.0	43.8	42.6	41.3	40.0	38.7	37.2	35.8	32.7	25.3	14.6
8	**********	42.8	42.1	41.0	39.8	38.7	37.4	36.2	34.8	33.5	30.6	23.7	13.7	
9	**********	40.3	39.7	38.7	37.6	36.4	35.3	34.1	32.8	31.6	28.8	22.3	12.9	
10	**********	38.3	37.7	36.7	35.6	34.6	33.5	32.3	31.2	29.9	27.3	21.2	12.2	
11	**********	36.5	35.9	35.0	34.0	33.0	31.9	30.8	29.7	28.5	26.1	20.2	11.7	
12	**********	34.9	34.4	33.5	32.5	31.6	30.6	29.5	28.4	27.3	25.0	19.3	11.2	
13	**********	33.6	33.0	32.2	31.3	30.3	29.4	28.4	27.3	26.3	24.0	18.6	10.7	
14	**********	32.3	31.8	31.0	30.1	29.2	28.3	27.3	26.3	25.3	23.1	17.9	10.3	
15	**********	30.8	29.9	29.1	28.2	27.3	26.4	25.4	24.4	22.3	17.3	10.0		
16	**********	29.8	29.0	28.2	27.3	26.5	25.6	24.6	23.7	21.6	16.7	9.7		
17	**********	28.9	28.1	27.3	26.5	25.7	24.8	23.9	23.0	21.0	16.2	9.4		
18	**********	28.1	27.3	26.6	25.8	25.0	24.1	23.2	22.3	20.4	15.8	9.1		
19	**********	27.3	26.6	25.9	25.1	24.3	23.5	22.6	21.7	19.8	15.4	8.9		
20	**********	26.6	25.9	25.2	24.4	23.7	22.9	22.0	21.2	19.3	15.0	8.6		
21	**********	26.0	25.3	24.6	23.9	23.1	22.3	21.5	20.7	18.9	14.6	8.4		
22	**********	25.4	24.7	24.0	23.3	22.6	21.8	21.0	20.2	18.4	14.3	8.2		
23	**********	24.8	24.2	23.5	22.8	22.1	21.3	20.5	19.7	18.0	14.0	8.1		
24	**********	24.3	23.7	23.0	22.3	21.6	20.9	20.1	19.3	17.6	13.7	7.9		
25	**********	23.8	23.2	22.5	21.9	21.2	20.5	19.7	18.9	17.3	13.4	7.7		
30	**********	21.8	21.2	20.6	20.0	19.3	18.7	18.0	17.3	15.8	12.2	7.1		
35	**********	20.1	19.6	19.0	18.5	17.9	17.3	16.7	16.0	14.6	11.3	6.5		
40	**********	18.3	17.8	17.3	16.7	16.2	15.6	15.0	13.7	10.6	6.1			
45	**********	17.3	16.8	16.3	15.8	15.2	14.7	14.1	12.9	10.0	5.8			
50	**********	16.4	15.9	15.5	15.0	14.5	13.9	13.4	12.2	9.5	5.5			
55	**********	15.6	15.2	14.7	14.3	13.8	13.3	12.8	11.7	9.0	5.2			
60	**********	15.0	14.5	14.1	13.7	13.2	12.7	12.2	11.2	8.6	5.0			
65	**********	14.4	14.0	13.6	13.1	12.7	12.2	11.7	10.7	8.3	4.8			
70	**********	13.9	13.5	13.1	12.7	12.2	11.8	11.3	10.3	8.0	4.6			
75	**********	13.0	12.6	12.2	11.8	11.4	10.9	10.0	7.7	4.5				
80	**********	12.6	12.2	11.8	11.4	11.0	10.6	9.7	7.5	4.3				
85	**********	12.2	11.9	11.5	11.1	10.7	10.3	9.4	7.3	4.2				
90	**********	11.9	11.5	11.2	10.8	10.4	10.0	9.1	7.1	4.1				
95	**********	11.6	11.2	10.9	10.5	10.1	9.7	8.9	6.9	4.0				
100	**********	11.3	10.9	10.6	10.2	9.9	9.5	8.6	6.7	3.9				
125	**********	9.8	9.5	9.1	8.8	8.5	7.7	6.0	3.5					
150	**********	8.6	8.4	8.0	7.7	7.1	5.5	3.2						
200	**********	7.2	7.0	6.7	6.1	4.7	2.7							
250	**********	6.2	6.0	5.5	4.2	2.4								
300	**********	5.0	3.9	2.2										
350	**********	4.6	3.6	2.1										
400	**********	3.3	1.9											
450	**********	3.2	1.8											
500	**********	3.0	1.7											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Prairie Provinces – Activity level data

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	157.3	156.6	155.8	153.4	149.3	145.1	140.8	136.3	131.7	126.9	121.9	111.3	86.2	49.8
2	********	110.7	110.2	108.5	105.6	102.6	99.5	96.4	93.1	89.7	86.2	78.7	61.0	35.2
3	********	90.4	90.0	88.6	86.2	83.8	81.3	78.7	76.0	73.3	70.4	64.3	49.8	28.7
4	********	78.3	77.9	76.7	74.7	72.6	70.4	68.2	65.8	63.4	61.0	55.6	43.1	24.9
5	********	70.0	69.7	68.6	66.8	64.9	63.0	61.0	58.9	56.7	54.5	49.8	38.6	22.3
6	********	63.9	63.6	62.6	61.0	59.2	57.5	55.6	53.8	51.8	49.8	45.4	35.2	20.3
7	********	59.2	58.9	58.0	56.4	54.8	53.2	51.5	49.8	48.0	46.1	42.1	32.6	18.8
8	********	55.4	55.1	54.2	52.8	51.3	49.8	48.2	46.6	44.9	43.1	39.3	30.5	17.6
9	********	52.2	51.9	51.1	49.8	48.4	46.9	45.4	43.9	42.3	40.6	37.1	28.7	16.6
10	********	49.5	49.3	48.5	47.2	45.9	44.5	43.1	41.6	40.1	38.6	35.2	27.3	15.7
11	********	47.2	47.0	46.3	45.0	43.8	42.4	41.1	39.7	38.3	36.8	33.6	26.0	15.0
12	********	45.2	45.0	44.3	43.1	41.9	40.6	39.3	38.0	36.6	35.2	32.1	24.9	14.4
13	********	43.4	43.2	42.5	41.4	40.2	39.0	37.8	36.5	35.2	33.8	30.9	23.9	13.8
14	********	41.9	41.6	41.0	39.9	38.8	37.6	36.4	35.2	33.9	32.6	29.7	23.0	13.3
15	********	40.4	40.2	39.6	38.6	37.5	36.3	35.2	34.0	32.8	31.5	28.7	22.3	12.9
16	********	39.2	39.0	38.4	37.3	36.3	35.2	34.1	32.9	31.7	30.5	27.8	21.6	12.4
17	********	38.0	37.8	37.2	36.2	35.2	34.1	33.1	31.9	30.8	29.6	27.0	20.9	12.1
18	********	36.9	36.7	36.2	35.2	34.2	33.2	32.1	31.0	29.9	28.7	26.2	20.3	11.7
19	**********	35.7	35.2	34.3	33.3	32.3	31.3	30.2	29.1	28.0	25.5	19.8	11.4	
20	**********	34.8	34.3	33.4	32.4	31.5	30.5	29.4	28.4	27.3	24.9	19.3	11.1	
21	**********	34.0	33.5	32.6	31.7	30.7	29.7	28.7	27.7	26.6	24.3	18.8	10.9	
22	**********	33.2	32.7	31.8	30.9	30.0	29.1	28.1	27.1	26.0	23.7	18.4	10.6	
23	**********	32.5	32.0	31.1	30.3	29.4	28.4	27.5	26.5	25.4	23.2	18.0	10.4	
24	**********	31.8	31.3	30.5	29.6	28.7	27.8	26.9	25.9	24.9	22.7	17.6	10.2	
25	**********	31.2	30.7	29.9	29.0	28.2	27.3	26.3	25.4	24.4	22.3	17.2	10.0	
30	**********	28.4	28.0	27.3	26.5	25.7	24.9	24.0	23.2	22.3	20.3	15.7	9.1	
35	**********	26.3	25.9	25.2	24.5	23.8	23.0	22.3	21.4	20.6	18.8	14.6	8.4	
40	**********	24.3	23.6	22.9	22.3	21.6	20.8	20.1	19.3	17.6	13.6	7.9		
45	**********	22.9	22.3	21.6	21.0	20.3	19.6	18.9	18.2	16.6	12.9	7.4		
50	**********	21.7	21.1	20.5	19.9	19.3	18.6	17.9	17.2	15.7	12.2	7.0		
55	**********	20.7	20.1	19.6	19.0	18.4	17.8	17.1	16.4	15.0	11.6	6.7		
60	**********	19.8	19.3	18.7	18.2	17.6	17.0	16.4	15.7	14.4	11.1	6.4		
65	**********	19.0	18.5	18.0	17.5	16.9	16.3	15.7	15.1	13.8	10.7	6.2		
70	**********	18.3	17.8	17.3	16.8	16.3	15.7	15.2	14.6	13.3	10.3	5.9		
75	**********	17.7	17.2	16.8	16.3	15.7	15.2	14.7	14.1	12.9	10.0	5.7		
80	**********	17.2	16.7	16.2	15.7	15.2	14.7	14.2	13.6	12.4	9.6	5.6		
85	**********	16.6	16.2	15.7	15.3	14.8	14.3	13.8	13.2	12.1	9.4	5.4		
90	**********	16.2	15.7	15.3	14.8	14.4	13.9	13.4	12.9	11.7	9.1	5.2		
95	**********	15.3	14.9	14.4	14.0	13.5	13.0	12.5	11.4	8.8	5.1			
100	**********	14.9	14.5	14.1	13.6	13.2	12.7	12.2	11.1	8.6	5.0			
125	**********	13.4	13.0	12.6	12.2	11.8	11.3	10.9	10.0	7.7	4.5			
150	**********	12.2	11.8	11.5	11.1	10.8	10.4	10.0	9.1	7.0	4.1			
200	**********	10.3	10.0	9.6	9.3	9.0	8.6	7.9	6.1	3.5				
250	**********	9.2	8.9	8.6	8.3	8.0	7.7	7.0	5.5	3.1				
300	**********	8.1	7.9	7.6	7.3	7.0	6.4	5.0	2.9					
350	**********	7.5	7.3	7.0	6.8	6.5	5.9	4.6	2.7					
400	**********	6.8	6.6	6.3	6.1	5.6	4.3	2.5						
450	**********	6.4	6.2	6.0	5.7	5.2	4.1	2.3						
500	**********	5.9	5.7	5.5	5.0	3.9	2.2							
750	**********	4.1	3.1	1.8										
1000	**********	2.7	1.6											
1500	**********	1.3												

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

2003 Adult Education and Training Survey

Training Approximate Sampling Variability Tables for Canada – Activity level data

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	227.0	226.0	224.8	221.3	215.4	209.4	203.1	196.7	190.0	183.1	175.9	160.6	124.4	71.8
2	160.5	159.8	159.0	156.5	152.3	148.1	143.6	139.1	134.4	129.5	124.4	113.5	88.0	50.8
3	131.1	130.5	129.8	127.8	124.4	120.9	117.3	113.5	109.7	105.7	101.6	92.7	71.8	41.5
4	113.5	113.0	112.4	110.7	107.7	104.7	101.6	98.3	95.0	91.5	88.0	80.3	62.2	35.9
5	101.5	101.1	100.5	99.0	96.4	93.6	90.8	88.0	85.0	81.9	78.7	71.8	55.6	32.1
6	92.7	92.2	91.8	90.4	88.0	85.5	82.9	80.3	77.6	74.7	71.8	65.6	50.8	29.3
7	85.8	85.4	85.0	83.7	81.4	79.1	76.8	74.3	71.8	69.2	66.5	60.7	47.0	27.1
8	80.3	79.9	79.5	78.3	76.2	74.0	71.8	69.5	67.2	64.7	62.2	56.8	44.0	25.4
9	75.7	75.3	74.9	73.8	71.8	69.8	67.7	65.6	63.3	61.0	58.6	53.5	41.5	23.9
10	71.8	71.5	71.1	70.0	68.1	66.2	64.2	62.2	60.1	57.9	55.6	50.8	39.3	22.7
11	********	68.1	67.8	66.7	65.0	63.1	61.2	59.3	57.3	55.2	53.0	48.4	37.5	21.7
12	********	65.2	64.9	63.9	62.2	60.4	58.6	56.8	54.8	52.9	50.8	46.4	35.9	20.7
13	********	62.7	62.4	61.4	59.8	58.1	56.3	54.5	52.7	50.8	48.8	44.5	34.5	19.9
14	********	60.4	60.1	59.2	57.6	56.0	54.3	52.6	50.8	48.9	47.0	42.9	33.2	19.2
15	********	58.3	58.0	57.2	55.6	54.1	52.4	50.8	49.1	47.3	45.4	41.5	32.1	18.5
16	********	56.5	56.2	55.3	53.9	52.3	50.8	49.2	47.5	45.8	44.0	40.1	31.1	18.0
17	********	54.8	54.5	53.7	52.3	50.8	49.3	47.7	46.1	44.4	42.7	38.9	30.2	17.4
18	********	53.3	53.0	52.2	50.8	49.4	47.9	46.4	44.8	43.2	41.5	37.8	29.3	16.9
19	********	51.8	51.6	50.8	49.4	48.0	46.6	45.1	43.6	42.0	40.4	36.8	28.5	16.5
20	********	50.5	50.3	49.5	48.2	46.8	45.4	44.0	42.5	40.9	39.3	35.9	27.8	16.1
21	********	49.3	49.1	48.3	47.0	45.7	44.3	42.9	41.5	40.0	38.4	35.0	27.1	15.7
22	********	48.2	47.9	47.2	45.9	44.6	43.3	41.9	40.5	39.0	37.5	34.2	26.5	15.3
23	********	47.1	46.9	46.2	44.9	43.7	42.4	41.0	39.6	38.2	36.7	33.5	25.9	15.0
24	********	46.1	45.9	45.2	44.0	42.7	41.5	40.1	38.8	37.4	35.9	32.8	25.4	14.7
25	********	45.2	45.0	44.3	43.1	41.9	40.6	39.3	38.0	36.6	35.2	32.1	24.9	14.4
30	********	41.3	41.0	40.4	39.3	38.2	37.1	35.9	34.7	33.4	32.1	29.3	22.7	13.1
35	********	38.2	38.0	37.4	36.4	35.4	34.3	33.2	32.1	30.9	29.7	27.1	21.0	12.1
40	********	35.7	35.5	35.0	34.1	33.1	32.1	31.1	30.0	28.9	27.8	25.4	19.7	11.4
45	********	33.7	33.5	33.0	32.1	31.2	30.3	29.3	28.3	27.3	26.2	23.9	18.5	10.7
50	********	32.0	31.8	31.3	30.5	29.6	28.7	27.8	26.9	25.9	24.9	22.7	17.6	10.2
55	********	30.5	30.3	29.8	29.1	28.2	27.4	26.5	25.6	24.7	23.7	21.7	16.8	9.7
60	********	29.2	29.0	28.6	27.8	27.0	26.2	25.4	24.5	23.6	22.7	20.7	16.1	9.3
65	********	28.0	27.9	27.5	26.7	26.0	25.2	24.4	23.6	22.7	21.8	19.9	15.4	8.9
70	********	27.0	26.9	26.5	25.8	25.0	24.3	23.5	22.7	21.9	21.0	19.2	14.9	8.6
75	********	26.1	26.0	25.6	24.9	24.2	23.5	22.7	21.9	21.1	20.3	18.5	14.4	8.3
80	********	25.3	25.1	24.7	24.1	23.4	22.7	22.0	21.2	20.5	19.7	18.0	13.9	8.0
85	********	24.5	24.4	24.0	23.4	22.7	22.0	21.3	20.6	19.9	19.1	17.4	13.5	7.8
90	********	23.8	23.7	23.3	22.7	22.1	21.4	20.7	20.0	19.3	18.5	16.9	13.1	7.6
95	********	23.2	23.1	22.7	22.1	21.5	20.8	20.2	19.5	18.8	18.0	16.5	12.8	7.4
100	********	22.6	22.5	22.1	21.5	20.9	20.3	19.7	19.0	18.3	17.6	16.1	12.4	7.2
125	**********		20.1	19.8	19.3	18.7	18.2	17.6	17.0	16.4	15.7	14.4	11.1	6.4
150	**********		18.4	18.1	17.6	17.1	16.6	16.1	15.5	14.9	14.4	13.1	10.2	5.9
200	**********		15.9	15.7	15.2	14.8	14.4	13.9	13.4	12.9	12.4	11.4	8.8	5.1
250	**********		14.0	13.6	13.2	12.8	12.4	12.0	11.6	11.1	10.2	7.9	4.5	
300	**********		12.8	12.4	12.1	11.7	11.4	11.0	10.6	10.2	9.3	7.2	4.1	
350	**********		11.8	11.5	11.2	10.9	10.5	10.2	9.8	9.4	8.6	6.6	3.8	
400	**********		11.1	10.8	10.5	10.2	9.8	9.5	9.2	8.8	8.0	6.2	3.6	
450	**********		10.4	10.2	9.9	9.6	9.3	9.0	8.6	8.3	7.6	5.9	3.4	
500	**********		9.9	9.6	9.4	9.1	8.8	8.5	8.2	7.9	7.2	5.6	3.2	
750	**********		7.9	7.6	7.4	7.2	6.9	6.7	6.4	5.9	4.5	2.6		
1000	**********		6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.1	3.9	2.3		
1500	**********		5.4	5.2	5.1	4.9	4.7	4.5	4.1	3.2	1.9			
2000	**********		4.5	4.4	4.2	4.1	3.9	3.6	2.8	1.6				
3000	**********		3.5	3.3	3.2	2.9	2.3	1.3						
4000	**********		2.8	2.5	2.0	1.1								
5000	**********		2.3	1.8	1.0									
6000	**********		1.6	0.9										
7000	**********		1.5	0.9										
8000	**********		0.8											
9000	**********		0.8											

NOTE: FOR CORRECT USAGE OF THESE TABLES PLEASE REFER TO MICRODATA DOCUMENTATION

11.0 Weighting

Since the Adult Education and Training Survey (AETS) used a sub-sample of the Labour Force Survey (LFS) sample, the derivation of weights for the survey records is clearly tied to the weighting procedure used for the LFS. The LFS weighting procedure is briefly described below.

11.1 Weighting Procedures for the Labour Force Survey

In the LFS, the final weight attached to each record is the product of the following factors: the basic weight, the cluster sub-weight, the stabilization weight, the balancing factor for non-response, and the province-age-sex and sub-provincial area ratio adjustment factor. Each is described below.

Basic Weight

In a probability sample, the sample design itself determines weights which must be used to produce unbiased estimates of the population. Each record must be weighted by the inverse of the probability of selecting the person to whom the record refers. In the example of a 2% simple random sample, this probability would be 0.02 for each person and the records must be weighted by 1 / 0.02 = 50. Due to the complex LFS design, dwellings in different regions will have different basic weights. Because all eligible individuals in a dwelling are interviewed (directly or by proxy), this probability is essentially the same as the probability with which the dwelling is selected.

Cluster Sub-weight

The cluster delineation is such that the number of dwellings in the sample increases very slightly with moderate growth in the housing stock. Substantial growth can be tolerated in an isolated cluster before the additional sample represents a field collection problem. However, if growth takes place in more than one cluster in an interviewer assignment, the cumulative effect of all increases may create a workload problem. In clusters where substantial growth has taken place, sub-sampling is used as a means of keeping interviewer assignments manageable. The cluster sub-weight represents the inverse of this sub-sampling ratio in clusters where sub-sampling has occurred.

Stabilization Weight

Sample stabilization is also used to address problems with sample size growth. Cluster sub-sampling addressed isolated growth in relatively small areas whereas sample stabilization accommodates the slow sample growth over time that is the result of a fixed sampling rate along with a general increase in the size of the population. Sample stabilization is the random dropping of dwellings from the sample in order to maintain the sample size at its desired level. The basic weight is adjusted by the ratio of the sample size, based on the fixed sampling rate, to the desired sample size. This adjustment factor is known as the stabilization weight. The adjustment is done within stabilization areas defined as dwellings belonging to the same employment insurance economic region and the same rotation group.

Non-response

For certain types of non-response (i.e. household temporarily absent, refusal), data from a previous month's interview with the household if any, is brought forward and used as the current month's data for the household.

In other cases, non-response is compensated for by proportionally increasing the weights of responding households. The weight of each responding record is increased by the ratio of the number of households that should have been interviewed, divided by the number that where actually interviewed. This adjustment is done separately for non-response areas, which are

defined by employment insurance economic region, type of area, and rotation group. It is based on the assumption that the households that have been interviewed represent the characteristics of those that should have been interviewed within a non-response area.

Labour Force Survey Sub-weight

The product of the previously described weighting factors is called the LFS sub-weight. All members of the same sampled dwelling have the same sub-weight.

Sub-provincial and Province-Age-Sex Adjustments

The sub-weight can be used to derive a valid estimate of any characteristic for which information is collected by the LFS. However, these estimates will be based on a frame that contains some information that may be several years out of date and therefore not representative of the current population. Through the use of more up-to-date auxiliary information about the target population, the sample weights are adjusted to improve both the precision of the estimates and the sample's representation of the current population.

Independent estimates are available monthly for various age and sex groups by province. These are population projections based on the most recent Census data, records of births and deaths, and estimates of migration. In the final step, this auxiliary information is used to transform the sub-weight into the final weight. This is done using a calibration method. This method ensures that the final weights it produces sum to the census projections for the auxiliary variables, namely totals for various age-sex groups, economic regions, census metropolitan areas, rotation groups, household and economic family size. Weights are also adjusted so that estimates of the previous month's industry and labour status estimates derived from the present month's sample, sum up to the corresponding estimates from the previous month's sample. This is called composite estimation. The entire adjustment is applied using the generalized regression technique.

This final weight is normally not used in the weighting for a supplement to the LFS. Instead, it is the sub-weight which is used, as explained in the following paragraphs.

11.2 Weighting Procedures for the Adult Education and Training Survey

The principles behind the calculation of the weights for the Adult Education and Training Survey are identical to those for the LFS. However, further adjustments are made to the LFS sub-weights in order to derive a final weight for the individual records on the AETS microdata file.

1) An adjustment to account for the use of a five-sixth sub-sample, instead of the full LFS sample.

2) An adjustment to account for the random selection of one respondent from the selected household. The adjustment is adapted to reflect the additional sub-sampling of people aged 65 years and older.

3) An adjustment to account for the additional non-response to the supplementary survey i.e., non-response to the AETS for individuals who did respond to the LFS or for which previous month's LFS data was brought forward. The procedure is similar to the LFS non-response weight adjustment, but groupings are based on different variables. Since we have the LFS information for these records, grouping variables include person-level as well as household level information.

4) A final adjustment is done to match the census projections for independent province-sex-age groups, census metropolitan area counts and economic region counts (in a calibration exercise)**.**

The resulting weight (WTPM) is the final weight which appears on the Adult Education and Training Survey MAIN master microdata file. The final weight on the MAIN public use microdata file is called WTPP.

In order to derive the training weights (WTAM) for the selected activity found in the TRAINING master microdata file, the person weight (WTPM) has been multiplied by the number of training activities for each respondent. The final weight on the TRAINING public use microdata file is called WTAP.

12.0 Questionnaires and Code Sheets

12.1 The Labour Force Survey Questionnaire

The Labour Force Survey questionnaire (LFS_QuestE.pdf) is used to collect information on the current and most recent labour market activity of all household members 15 years of age or older. It includes questions on hours of work, job tenure, type of work, reason for hours lost or absent, job search undertaken, availability for work, and school attendance.

12.2 The Adult Education and Training Survey Questionnaire

The Adult Education and Training Survey (AETS) questionnaire was used in February and March of 2003 to collect the information for the supplementary survey. The file AETS2003_QuestE.pdf contains the English questionnaire.

12.3 Code Sheets

North American Industry Classification System (NAICS) 1997
Appendix I – NAICS.pdf

Standard Occupational Classification (SOC) 1991
Appendix II – SOC-1991.pdf

Classification of Instructional Programs (CIP)
Appendix III – CIP.pdf

Summary of Content Changes – Comparison of the 2003 and 1998 Adult Education and Training Survey (AETS)
Appendix IV – Concepts 2003-1998.pdf

13.0 Record Layout with Univariate Frequencies

13.1 Record Layout with Univariate Frequencies – Person File

See AETS2003_PUMF_MAIN_CdBk.pdf for the record layout with univariate counts for the MAIN public use microdata file.

For the MAIN master microdata file record layout with univariate counts see AETS2003_MASTER_MAIN_CdBk.pdf.

13.2 Record Layout with Univariate Frequencies – Training File

See AETS2003_PUMF_TRAINING_CdBk.pdf for the record layout with univariate counts for the TRAINING public use microdata file.

For the TRAINING master microdata file record layout with univariate counts see AETS2003_MASTER_TRAINING_CdBk.pdf.