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SURVEY OF ALBERTA APPRENTICES AND JOURNEYMEN

8610

Microdata Documentation

Special Surveys Division
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SURVEY OF ALBERTA APPRENTICES AND JOURNEYMEN - 8610

T A B L E O F C O N T E N T S

1. INTRODUCTION

This package should enable analysts to access and manipulate the microdata file from the 1986 Survey of Alberta Apprentices and Journeymen (APP). Any questions about the data set or its use should be directed to:

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2. SURVEY OBJECTIVES

Apprenticeship is a combination of on-the-job and technical training which leads to certification as a qualified journeyman in a specific trade. There are 52 trades designated in Alberta. Alberta Manpower administers the program, which is jointly funded by the federal and provincial governments.

To become an apprentice, an individual must be at least 16 years old and have a minimum level of education (usually Grade 9). The individual must also be employed with an employer who is a journeyman or employs a journeyman in the required trade. Once this condition is met, the individual can become a registered apprentice by signing a contract with his employer. Depending on the trade, the term of apprenticeship varies in length from two to four periods, generally two to four years. On successfully completing the term of apprenticeship, the apprentice becomes a journeyman on receiving an Alberta Completion of Apprenticeship Certificate and a Journeyman Certificate informally known as a 'ticket'. Journeyman certification can also be obtained by other means, such as the successful completion of the Interprovincial Red Sear program in another province; practical experience and successful completion of an examination; or accredited programs and successful completion of an examination.

At present in Alberta, there are approximately 21,000 registered apprentices and 40,000 - 60,000 journeymen. Under the apprenticeship and trade certification program, Alberta Manpower monitors the status of registered apprentices and schedules them for technical training at post-secondary institutions. Therefore, it is possible to determine when apprentices become unemployed in their trade. With current data, however, it is not possible to determine if apprentices not working in their registered trades are working in related occupations.

Once an apprentice has received a journeyman certificate, it is possible to determine if he/she is active in his/her trade only if he/she is working for an employer who has apprentices registered. As a result, nothing is known about those journeymen working for employers who do not have registered apprentices in their trade or about journeymen who are not working in their registered trade themselves.

The survey data will be used to identify, in a reliable manner, Alberta-registered apprentices and Alberta-certified journeymen who are active in their trade, as well as the trades in which they are active. This data will then be used to help plan enrollment levels in the various apprenticeship programs for the next five to ten years. The data will also be useful in the refinement of labour supply projection models developed by Alberta Manpower.

3. POPULATION

Data were collected for the civilian non-institutional population of Alberta aged 16 to 65. Residents of Indian reserves were excluded from the survey population. The study will use two reference periods:

(1) the LFS reference week in October, 1986, i.e., the week of October 19-24;

(2) the 12 months preceding the LFS reference week in October, 1986.

4. SURVEY DESIGN

The Survey of Alberta Apprentices and Journeymen was conducted as a supplementary survey to the Canadian Labour Force Survey (LFS) of October 1986. Hence, the survey design is based on the LFS frame and sampling procedures. This section provides a brief overview of the methodology of the LFS as well as highlighting those aspects of the survey design particular to the Survey of Alberta Apprentices and Journeymen.

4.1 LFS Survey Design[1].

The LFS uses a multi-stage area sample which is based upon information from the 1981 Census of Canada. It has recently been redesigned to reflect the changes in population characteristics shown by the 1981 Census and to respond to changes in information needs. Basically, the sample consists of three main parts: self-representing units (SRUs), non-self-representing units (NSRUs), and special areas. Each of these parts is discussed separately below, following a brief discussion of the stratification.

Stratification in an area frame is basically a process of classifying (usually compact) area units into certain collections called strata. Each of the ten provinces in Canada is divided into a number of economic regions (ER's). An ER has areas of similar economic structure formed on the basis of recent information and is stable over a period of time. These ERs are treated as primary strata and further stratification is carried out within the self-representing and non-self-representing parts independently in each ER.

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1. A detailed description of the old design is available in the Statistics Canada publication entitled **Methodology of the Canadian Labour Force Survey** 1976 (catalogue #71-526). A description of the redesign can be found in the paper M.P. Singh, J.D. Drew and G.H. Choudry, "Post ,'81 Censal Redesign of the Canadian Laboaur Force Survey", **Survey Methodology a Journal of Statistics Canada**, December 1984 (catalogue No. 12-001, Vol. 10, No. 2).

This stratification is carried out using the following methods: 1) using an optimization procedure which forms a prespecified number of strata, each of which is homogeneous with respect to up to 17 Census characteristics, (labour force, dwelling and population related variables); 2) using simple geographic criteria; or 3) using the optimization procedure with a constraint that geographic contiguity be maintained within strata.

4.1.1 Self Representing Units (SRUs)

The self-representing part of the sample comprises those cities whose population exceeds a certain predetermined value, this value varying from region to region.[2]. Some cities with population less than this lower limit are also classified as SRUs, in cases where they possess unique labour force characteristics. Within all SRUs, the sample is selected independently so that each of them is represented in the survey by a sample of its own population and hence, the name 'self-representing'. Three different stratification schemes are used depending on the size and composition of the SRU. The larger SRUs are subdivided geographically into 'super-strata', within which non-geographic strata are formed using the optimization procedure. In the smaller block-faced SRUs, these optimal non-geographic area strata are formed directly. In the non-block-faced cities with considerably less scope for stratification, simple geographic strata are used.

Within each stratum, a sample of clusters (normally a city block or block-face) is selected by a sampling procedure known as the ramdom group method. Clusters are randomized and assigned to groups and then within each group, a cluster is selected with probability proportional to the number of dwellings contained in it. Generally, six clusters (and in some cases, 12 clusters) are selected from each stratum.

The second and final stage of selection in the SRUs is the systematic selection of dwellings within selected clusters. This is done by first obtaining a listing of

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2. SRUs are defined as cities giving a minimum sample yield of 50 dwellings. The minimum city size, therefore, varies due to the difference in sampling ratios from region to region.

the dwellings in each cluster and then performing the selection. On average, approximately 4-5 dwellings are selected from a cluster in block-faced areas and 6-8 dwellings in non-block-faced areas. Basic demographic information is obtained for all permanent residents of the household and LFS questionnaires are administered to all individuals 15 years of age or older, within a selected household.

In the 17 largest self-representing units, a special selection is made of large apartment buildings (30 or more units and 5 or more stories) to improve the representativeness of the sample and to reduce the variance of the sample estimates. The sampling procedure for the apartment sample is similar to that of the regular sample, each apartment building constituting a cluster.

4.1.2 Non-Self-Representing Units (NSRUs)

The NSRUs are the areas outside the SRUs containing rural portions and small urban centers. Before discussing the selection stages used in the NSRUs, it is necessary to briefly describe the two methods of stratification and PSU formation.

In economic regions with sufficient NSR urban and rural populations (70% of the ERs), separate urban and rural strata are set up. Stratification is done using the optimization procedure separately within urban and rural portions. Each stratum of an NSRU within an economic region is delineated into a number of primary sampling units (PSUs). The delineation is done using a modified version of the optimization procedure used for stratification, so as to form similar rather than dissimilar groupings, each representing the stratum in which they are located with respect to the census characteristics.

In the remaining 30% of economic regions which do not have sufficient NSR urban and rural population for explicit urban/rural stratification, strata are formed using the optimization procedure and PSUs are formed in such a way as to represent the stratum with respect to the census characteristics and the urban/rural population split in the stratum (according to 1981 census figures). Within those PSUs selected for the

sample, urban and rural portions are sampled independently.

Two to four PSUs are selected in each stratum. Urban areas (selected urban PSUs or urban portions of selected PSUs where explicit urban/rural stratification was not done) are further subdivided into clusters; a cluster being a well-defined area with bourdaries recognizable both on maps and in the field. A number of clusters are selected from each group using systematic sampling with probability proportional to the number of households in it. Dwellings are systematically selected within selected clusters. From selected rural areas (consisting of nearby rural census enumeration areas or EAs), seondaries (EAs) and dwellings are selected as described for urban areas.

4.1.3 Special Areas

In addition to the SRUs, a small proportion of the LFS population is found in institutions such as hospitals, schools, hotels, on military establishments, in remote areas, etc. Because the labour force characteristics of people in these institutions are unique and because some of these areas are not regularly accessible to LFS interviewers, they are handled by the special area frame, which for sampling purposes is divided into the following strata: military establishments, hospitals and other institutions, and remote areas. It may be noted that only the civilian population living on military establishments is included in the survey and that in the case of institutions, inmates of the institutions are not included in the survey.

The special areas are sampled in three stages. The first stage units correspond to census enumeration areas and are selected systematically with probability proportional to size, the eligible labour force population as of the 1981 census being the size measure. Subsequent stages of sampling are clusters and households, as described earlier.

4.2 Sample Rotation

Each household in the LFS sample remains in the sample for a period of six consecutive months. After the sixth month, the household 'rotates out' of the sample and is replaced by a new household. One-sixth of the

sample is rotated out in this manner each month and a new sixth is brought in to replace it. This rotation, as it is called, is done primarily to minimize the non-response that might occur if respondents were asked to remain in the survey for a longer period of time. The rotation procedure is designed in such a way as to effectively divide the whole sample into six equally representative parts. This facilitates subsampling of the LFS sample.

4.3 **The Survey of Alberta Apprentices and Journeymen**

The Survey of Alberta Apprentices and Journeymen was conducted on a subsample of the October 1986 Labour Force Survey sample. Five of the six LFS rotation groups were used, rotation groups 1, 2, 3, 5, and 6. Each person residing in Alberta in one of these rotation groups aged 16 to 65 were asked the survey questions.

5. COLLECTION

The interviewing was done using the regular interviewing procedures of the Labour Force Survey. Data were collected during the week of October 19-24, 1986. Most of the labour force variables relate to the reference week of October 11-17, 1986. Supplementary questions were completed for each person 16-65 years of age in the household.

6. PROCESSING

Data entry was completed in the Statistics Canada Regional Offices using the mini computers situated there. Following capture, the data were subjected to validation, edit and correction procedures.

Partial non-response to the APP was identified by subjecting the raw data to an exhaustive computer edit. Records with missing or inconsistent data were imputed from similar records.

7. DATA OUTPUT

This microdata file represents the sole vector of dissemination planned by Statistics Canada for the Survey.

8. ESTIMATION

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

For the LFS, the file created for tabulation purposes contains one record per person in the sample. Each record contains all labour force and demographic characteristics concerning the selected individual. Instead of physically duplicating the sample record according to the number of persons that record represents, an overall weighting factor is placed on each record. The weighting factor refers to the number of records that a particular record represents in order to obtain population estimates. For example, if the number of persons who are married is to be estimated, it is done by selecting the records, referring to those persons, in the sample with that characteristic and summing the weights entered on those records.

In a probability sample, the sample design itself determines weights which must be used to produce unbiased estimates. Each record must be weighted by the inverse of the probability of selecting the person to whom the record refers (in the example of the 2% simple random sample, this probability would be 0.02 for each person and the records must be weighted by 1/0.02=50). This is called the simple estimate.

Since the Survey of Alberta Apprentices and Journeymen used a subsample of the LFS sample, the derivation of weights for the survey records is closely tied to the weighting procedure used for the LFS. The LFS weighting operation is described briefly below.

8.1 LFS Weighting

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 balancing factor for non-response, the rural-urban factor, and the subprovincial and the province-age-sex ratio adjustment factors. Each is described below.

8.1.1 Basic Weight

The basic weight is essentially the inverse of the probability that the individual is selected in the sample.

8.1.2 Cluster Sub-Weight

The cluster delineation is such that the sample take increases very slightly with moderate growth. 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 problem. In clusters where substantial growth has taken place, sub-sampling may be resorted to as a means of keeping assignments manageable. The cluster sub-weight represents the inverse of this sub-sampling ratio in clusters where sub-sampling has occurred.

8.1.3 Non-Response

Notwithstanding the strict controls in the LFS, some non-response is inevitable, despite all the attempts made by the interviewers. The LFS non-response rate is approximately 5%. For certain types of non-response (temporarily absent, refusal), if the previous month's data is available, it is imputed for the non-responding record.

In other cases non-response is compensated by dividing the sample into geographic balancing units. 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 were interviewed. This adjustment is based on the assumption that the households that have been interviewed represent the characteristics of those that should have been interviewed. If this assumption is not true, the estimates will be somewhat biased.

8.1.4 Rural-Urban Factor

In NSRUs without sufficient rural and urban population for explicit urban and rural strata to be formed, each

primary sampling unit (PSU) is composed of both urban and rural parts. Information concerning the total population in rural and urban areas is available from the 1981 census for each PSU as well as for each economic region (a geographically contiguous subprovincial area). Using the selected PSUs only and dividing their 1981 rural or urban population by the known probability of selection a 'simple estimate' of the 1981 rural or urban population is obtained for each economic region (ER) in which explicit urban/rural stratification is not done. Comparison by ER with the actual 1981 rural or urban census counts indicates whether the selected PSUs over- or under-represent the respective areas. The ratio of the actual rural-urban counts is divided by the corresponding estimates. These two factors are computed for each relevant ER and are used in the form of ratio adjustments. They are computed at the time of selection of the PSUs and are entered on each sample record according to the appropriate area (rural or urban) of the NSRU. Changes in these factors are incorporated at the time of PSU rotations.

8.1.5 Subprovincial and Province-Age-Sex Adjustments

By applying the previously described four weighting factors, a valid estimate could be derived for any aggregates for which information is collected by the LFS. In particular, estimates of the total number of persons 15+ in subprovincial regions comprised of 67 individual or combined economic regions and 24 large cities (census methropolitan areas) as well as in designated age-sex groups in each of the ten provinces are produced. Independent estimates are available monthly for the totals in each of these classes by projecting forward the 1981 Census counts. A 'raking ratio' procedure is applied in which two ratio steps are repeated or iterated until both the subprovincial and province-age-sex adjustment is done. Beginning the procedure with the weights produced as the product of the first 4 factors, for each adjustment and within each class, the independent estimate is divided by the sum of the weights and this factor is applied to the weights on records in that class. After these repeated adjustments have been made, the estimated aggregates will agree with the projected census counts for each classification.

8.2 Weighting for the Survey of Alberta Apprentices and Journeymen

The principals of the calculations for the weights for the Survey of Alberta Apprentices and Journeymen are identical to those of the LFS. Three adjustments are made to the final LFS weights in order to derive a final weight for the individual records on the Apprentices and Journeymen Survey microdata file. The adjustments made to the LFS weights account for:

(1) a factor to adjust for the use of a five-sixth sample;

(2) a factor to adjust for the non-response to the Apprentices and Journeymen Supplement;

(3) a factor to adjust for subprovincial and provincial age-sex projections.

The first weight adjustment mentioned above is to account for subsampling of rotation groups.

The second is to account for the non-response rate to the Apprentices and Journeymen Supplement. Some households that responded to the LFS refused to respond to the supplementary questions.

The third adjustment, which is actually a series of adjustments, is identical to what is done for the LFS as outlined in 8.1.5.

8.3 Types of Estimates

Two types of estimates are possible from the Survey of Alberta Apprentices and Journeymen: qualitative estimates (estimates of counts or proportions of people possessing certain characteristics) and quantitative estimates (estimates of total or average amounts). It should be noted that the data on the Apprentices and Journeymen Survey tape are almost exclusively qualitative in nature.

8.3.1 Qualitative Estimates

Qualitative estimates are estimates of the number or proportion of the surveyed population possessing certain characteristics. The number of persons in Alberta who are registered apprentices is an example of this type of estimate. These estimates are readily obtained by summing the final weights of the supplementary survey records possessing the characteristic in question.

8.3.2 Quantitative Estimates

A few variables on the Apprentices and Journeymen Survey microdata file are quantitative in nature (e.g., number of weeks looking for work by apprentices). From these variables, it is possible to obtain such estimates as the average number of weeks without work. These estimates are of the following ratio form:

$$\text{est(average)} = \frac{X}{Y}$$

The number (X) is a quantitative estimate of the total of the variable of interest (number of weeks without work). The denominator (Y) is the qualitative estimate of the number of participants (those persons who were apprentices).

8.4 Weighting Policy

Users are cautioned against releasing unweighted tables or performing any analysis based on uneweighted survey results. As was discussed in Sections 8.1 and 8.2, there were several weight adjustments performed on the survey data. Sampling rates as well as non-response rates varied significantly from region to region within province.

9. RELEASE POLICY AND DATA RELIABILITY

It is important that users became familiar with the contents of this section before publishing or otherwise releasing any estimates derived from the Survey of Alberta Apprentices and Journeymen microdata file.

This section of the documentation provides guidelines to be followed by users. With the aid of these guidelines, users of the microdata should be able to produce figures consistent with those produced by Statistics Canada and in conformance with the established guidelines for rounding and release. The guidelines can be broken into two broad sections - sampling variability and rounding policy.

9.1 Sampling Variability Guidelines

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

Although the exact sampling error of the estimate, as defined above, cannot be measured from sample results alone, it is possible to estimate a statistical measure of sampling error, the standard error, from the sample data. Using the standard error, confidence intervals for estimates (ignoring the effects of non-sampling error) may be obtained under the assumption that the estimates are normally distributed about the true population value. 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 virtually with certainty that the differences would be less than three standard errors.

Because of the large variety of estimates that can be produced from a survey, the standard deviation is usually expressed relative to the estimate to which it pertains. The resulting measure, known as the coefficient of variation 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. Before releasing and/or publishing any estimates from the microdata file, users should determine whether the estimate is releasable based on the following guidelines:

TYPE OF ESTIMATE	COEFFICIENT OF VARIATION (IN %)	ALPHABETIC INDICATORS	GUIDELINE STATEMENT
1 Unqualified	0.0 to 0.5% 0.6 to 1.0% 1.1 to 2.5% 2.6 to 5.0% 5.1 to 10.0% 10.1 to 16.5%	A B C D E F	Estimates can be considered for general unrestricted release. No special notation is required, although the alphabetic indicators at the left are suggested.
2 Qualified	16.6 to 25.0%	G	Estimates can be considered for general unrestricted release but should be accompanied by warning of high sampling variability associated with the estimates. Such estimates should be identified by the letter G (or some other similar fashion).
3 Restricted	25.1 to 33.3%	H	Estimates can be considered for general unrestricted release only when sampling variabilities are obtained using an exact variance calculation procedure. The estimates should be accompanied by a warning of high sampling variability associated with the estimates.
4 Not for Release	(i) 33.4% or over	J	Estimates should not be released in any form under any circumstances. In statistical tables, such estimates should be deleted.

9.2 Estimates of Variance

Variance estimation is described separately for qualitative and quantitative estimates.

9.2.1 Sampling Variability for Qualitative Estimates

Derivation of sampling variabilities for each of the estimates which could be generated from the Apprentices and Journeymen Survey would be an extremely costly procedure, and for most users, an unnecessary one. Consequently, crude measures of sampling variability, in the form of tables, have been developed for use and are included in Section 12 (Crude Sampling Variability Tables). These tables have been produced using the coefficient of variation formula based on a simple random sample. Because estimates from the Survey of Alberta Apprentices and Journeymen were made from a multi-probability sample design (the LFS design), a factor called the design effect was introduced into the formula. This factor accounts for the increase in variance that resulted from using the LFS sample design over a simple random sample design. When sampling variability is obtained using these tables, only estimates falling into the unqualified or qualified range (i.e., estimates with a coefficient of variation less than or equal to 25%) may be considered for release. Two such tables, one for apprentices, and one for journeymen, are included in Section 12 of this package. The following table provides standard thresholds below which estimates must either be qualified or suppressed completely if the crude sampling variability tables are used.

Subpopulation	% of C.V. 25.0%	16.5%
Apprentices	3,500	8,000
Journeymen	4,000	9,000

The following rules should enable the user to determine coefficients of variation for aggregates (totals), percentages, ratios, differences between totals or percentages, and differences between ratios

Rule 1 Estimates of Aggregates (Totals)

The coefficient of variation for totals depends only on the size of the estimated total itself. On the Crude Sampling Variability Table for the appropriate group,

locate the estimated total (in thousands) in the left-most column of the table (headed 'Numerator of Percentage') and follow the asteristks across to the first figure encountered. This figure is the coefficient of variation.

Rule 2 Estimates of Percentages

The coefficient of variation of an estimated percentage depends on the size of the percentage and the size of the group upon which the percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. (Note that in the Crude Sampling Variability Tables, the coefficients of variation drop in going from left to right.)

To estimate the coefficient of variation of a percentage, reference should be made to the percentage (across the top of the table) and to the numerator of the percentage, in thousands (down the left side of the table). The intersection of the appropriate row and column gives the appropriate coefficient of variation.

Rule 3 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.

In the case where the numerator is not a subset of the denominator, the coefficient of variation of the ratio of the two estimates is approximately equal to the square root of the sum of squares of each coefficient of variation considered separately; that is, the coefficient of variation of a ratio:

$$R = \frac{X}{Y}$$

is

$$cv(R) = \sqrt{cv(X)^2 + cv(Y)^2}$$

This formula will tend to overstate the error if X and Y are positively correlated and understate the error if X and Y are negatively correlated.

Rule 4 Difference Between Totals or Percentages

The standard deviation of a difference between two estimates is approximately equal to the square root of the sum of squares of each standard deviation considered separately. That is, the standard deviation of a difference:

$$d = X - Y$$

$$sd(d) = \sqrt{\{X\ cv(X)\}^2 + \{Y\ cv(Y)\}^2}$$

The coefficient of variation of d is approximately

$$cv(d) = \frac{sd(d)}{d}$$

This formula is accurate for the difference between separate and uncorrelated characteristics but is only approximate otherwise.

Rule 5 Differences of Ratios

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

9.2.2 Sampling Variability for Quantitative Estimates

In order to provide variability estimates for quantitative (non-attribute) type variables, special tables would have to be produced. Since the variables on the Apprentices and Journeymen Survey microdata file are primarily qualitative in nature, this has not been done. As a general rule, however, the coefficient of variation of a quantitative total from this file will be larger than the coefficient of variation of the corresponding qualitative estimate (i.e., the number of persons contributing to the quantitative estimate). If the corresponding qualitative estimate is not releasable, the quantitative total will not be.

9.3 Rounding Policy

In order that estimates for publications or any other data released from the Apprentices and Journeymen Survey microdata file correspond to those produced by Statistics Canada or any others analyzing the data, users are urged to adhere to the following guidelines regarding the rounding of such estimates. It is unwise to release unrounded estimates, as they imply greater precision than actually exists.

9.3.1 Rounding Guidelines

1. Estimates of totals in the main body of a statistical table should be rounded to the nearest thousand using the normal rounding technique (see definition below).

2. 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 thousand units using normal rounding.

3. Averages, proportions, rates and percentages are to be computed from unrounded components and then are to be rounded themselves to one decimal using normal rounding.

4. Sums and differences of aggregates and ratios are to be derived from corresponding unrounded components and then rounded to the nearest thousand units or the nearest one decimal using normal rounding.

5. In instances where due to technical or other limitations, a different rounding technique is used, which results in estimates being released which differ from the corresponding estimates produced by Statistics Canada, users are encouraged to note the reason for such differences in the released document.

9.3.2 Normal Rounding

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, the number 8499 rounded to thousands would be 8 and the number 8500 rounded to thousands would be 9.

10. SURVEY DOCUMENTS

Statistics Canada Statistique Canada

HOUSEHOLD RECORD DOCKET

CONFIDENTIAL when completed

1 FORM NO. 03

2 Docket no.

3 Survey date

4 Assignment no.

5 Designated interviewer no. — No change 1 or

Your interviewer no.

6 P.S.U. — Group — Cluster

Rot. no.

7 Listing — Mult.

8 Type of dwelling — Enter code

9 Record time of every call on this household.

Mon.	:	:	:	:	:	:
Tues.	:	:	:	:	:	:
Wed.	:	:	:	:	:	:
Thur.	:	:	:	:	:	:
Fri.	:	:	:	:	:	:
Sat.	:	:	:	:	:	:

10 Listing address

12 INTERVIEWER CHECK ITEM:
- Is this the first interview at this dwelling or a new household since last interview?

Yes 1 ○ Go to 13 — No 2 ○ Go to 20

FIRST INTERVIEW WITH THIS HOUSEHOLD

13 WOULD YOU PREFER TO BE INTERVIEWED IN ENGLISH OR IN FRENCH?

English 1 ○ French 2 ○ Either 3 ○ Neither 4 ○

14 INTERVIEWER CHECK ITEM: Language of interview

English 1 ○ French 2 ○ Other 3 ○ Go to 15

15 WHAT ARE THE NAMES OF ALL PERSONS NOW LIVING OR STAYING HERE WHO HAVE NO USUAL PLACE OF RESIDENCE ELSEWHERE?

Enter names in 32

16 ARE THERE ANY PERSONS AWAY FROM THIS HOUSEHOLD ATTENDING SCHOOL, VISITING, TRAVELLING OR IN HOSPITAL WHO USUALLY LIVE HERE?

Yes 1 ○ Enter names in 32 — No 2 ○

17 DOES ANYONE ELSE LIVE HERE SUCH AS OTHER RELATIVES, ROOMERS, BOARDERS OR EMPLOYEES?

Yes 1 ○ Enter names in 32 — No 2 ○

COMPLETE 33 through 40 and go to 42

SUBSEQUENT INTERVIEW

20 • If personal interview 1 ○ Go to 21

• Otherwise ask:

ARE YOU STILL LIVING IN THE SAME DWELLING AS LAST MONTH?

Yes 2 ○ Go to 21 — No 3 ○ Personal visit required

21 DO THE FOLLOWING PERSONS STILL LIVE OR STAY AT THIS DWELLING?

- Read all names in 32
- Enter appropriate code in 40

22 DOES ANYONE ELSE NOW LIVE OR STAY AT THIS DWELLING SUCH AS OTHER RELATIVES, ROOMERS, BOARDERS, ETC.?

Yes 1 ○ Enter names in 32 — No 2 ○ Go to 42

Complete 33 through 40 and go to 42

31 HRD P.	Ln	32 Names of household members	33 Age	34 Sex	35 MS	36 Fed	37 Rsh	38 Educ. 1	38 Educ. 2	40 Membership	50 Ln	Answers to supplementary questions A	B	C	D	E	F	G	H	I	J	K	L	M
	1	Given name / Surname									1													
	2	Given name / Surname									2													
	3	Given name / Surname									3													
	4	Given name / Surname									4													
	5	Given name / Surname									5													
	6	Given name / Surname									6													
	7	Given name / Surname									7													
	8	Given name / Surname									8													

42 IS THIS DWELLING OWNED BY A MEMBER OF THIS HOUSEHOLD?

Yes 1 ○ (Go directly to FORMS 05 & 06) — No 2 ○ Complete FORM 04

COMPLETE AT END OF INTERVIEW

43 FOR ALL HOUSEHOLDS

Telephone no. — Permission to interview by phone: Granted 3 ○ Denied 4 ○ Go to 44

OR

No telephone 1 ○ Telephone no. refused 2 ○ Go to 44

44 Determine and record the best time to call on this household.

45 RESPONSE CODE

Month

Code

IF CODE 'B' EXPLAIN IN NOTES

46 Was this interview conducted by telephone?

Yes 1 ○ No 2 ○

47 Forms Control

Form	04	05	06
Printed			
Completed			

48

Ln	Return	Item no.
1	1 ○	
2	2 ○	
3	3 ○	
4	4 ○	

NOTES

See over for additional NOTES ○

Statistics Canada Statistique Canada

LABOUR FORCE SURVEY QUESTIONNAIRE

CONFIDENTIAL when completed

Docket No 2 | Survey date 3 (Mo. Yr.) | Assignment No. 4 | 1 FORM NO 05

HRD page - line No 5 | Given name 6 | Surname 7

10 LAST WEEK, DID ... DO ANY WORK AT A JOB OR BUSINESS?
Yes 1 ◯ No 2 ◯ Go to 30
PERMANENTLY unable to work 3 ◯ Go to 50

11 DID ... HAVE MORE THAN ONE JOB OR BUSINESS LAST WEEK?
Yes 1 ◯ No 2 ◯ Go to 13

12 WAS THIS A RESULT OF CHANGING EMPLOYERS LAST WEEK?
Yes 1 ◯ No 2 ◯

13 HOW MANY HOURS PER WEEK DOES ... USUALLY WORK AT HIS/HER
(Main) JOB? | If total 30 or more go to 15
Other jobs?

14 WHAT IS THE REASON ... USUALLY WORKS LESS THAN 30 HOURS PER WEEK?
Enter code

15 LAST WEEK, HOW MANY HOURS OF OVERTIME OR EXTRA HOURS DID ... WORK?
(Include paid and unpaid time at all jobs) | If none enter 00

16 LAST WEEK, HOW MANY HOURS WAS ... AWAY FROM WORK FOR ANY REASON WHATSOEVER (HOLIDAY, VACATION, ILLNESS, LABOUR DISPUTE, ETC.)?
(From all jobs) | If none enter 00 and go to 18

17 WHAT WAS THE MAIN REASON FOR BEING AWAY FROM WORK?
Enter code

18 HOW MANY HOURS DID ... ACTUALLY WORK LAST WEEK AT HIS/HER
(Main) JOB?
Other jobs?

19 IN THE PAST 4 WEEKS, HAS ... LOOKED FOR ANOTHER JOB?
Yes 1 ◯ No 2 ◯ Go to 72

20 WHAT HAS ... DONE IN THE PAST 4 WEEKS TO FIND ANOTHER JOB?
Enter code(s) and go to 72

30 LAST WEEK, DID ... HAVE A JOB OR BUSINESS AT WHICH HE/SHE DID NOT WORK?
Yes 1 ◯ Go to 33 No 2 ◯

31 LAST WEEK, DID ... HAVE A JOB TO START AT A DEFINITE DATE IN THE FUTURE?
Yes 1 ◯ No 2 ◯ Go to 50

32 COUNTING FROM THE END OF LAST WEEK, IN HOW MANY WEEKS WILL ... START TO WORK AT HIS/HER NEW JOB?
Go to 50

33 WHY WAS ... ABSENT FROM WORK LAST WEEK?
Enter code and if code 6 go to 32

34 DID ... HAVE MORE THAN ONE JOB OR BUSINESS LAST WEEK?
Yes 1 ◯ No 2 ◯

35 HOW MANY HOURS PER WEEK DOES ... USUALLY WORK AT HIS/HER
(Main) JOB? | If total 30 or more go to 37
Other jobs?

36 WHAT IS THE REASON ... USUALLY WORKS LESS THAN 30 HOURS PER WEEK?
Enter code

37 UP TO THE END OF LAST WEEK, HOW MANY WEEKS HAS ... BEEN CONTINUOUSLY ABSENT FROM WORK?

38 IS ... GETTING ANY WAGES OR SALARY FROM HIS/HER EMPLOYER FOR ANY TIME OFF LAST WEEK?
Yes 1 ◯ No 2 ◯

39 *INTERVIEWER CHECK ITEM*
•If code 5 (layoff) in 33 1 ◯ go to 56
•Otherwise 2 ◯ go to 40

40 IN THE PAST 4 WEEKS, HAS ... LOOKED FOR ANOTHER JOB?
Yes 1 ◯ No 2 ◯ Go to 72

41 WHAT HAS ... DONE IN THE PAST 4 WEEKS TO FIND ANOTHER JOB?
Enter code(s) and go to 72

50 HAS ... EVER WORKED AT A JOB OR BUSINESS?
Yes 1 ◯ No 2 ◯ Go to 56

51 WHEN DID ... LAST WORK AT A JOB OR BUSINESS?
No change ◯, ▶ | or ▶ (Mo. Yr.)
If month unknown enter - - in month

52 *INTERVIEWER CHECK ITEM*
(1) If 51 is before (2) If 51 is equal to or later than (Mo. Yr.)
1 ◯ go to 55
2 ◯ go to 53

53 DID ... USUALLY WORK 30 OR MORE HOURS PER WEEK?
Full-time 1 ◯ (30 or more hours per week)
Part-time 2 ◯ (Less than 30 hours per week)

54 WHAT WAS THE MAIN REASON WHY ... LEFT THAT JOB?
Enter code

55 *INTERVIEWER CHECK ITEM*
•If 'permanently unable to work' in 10 1 ◯ go to 80
•Otherwise 2 ◯ go to 56

56 IN THE PAST 6 MONTHS, HAS ... LOOKED FOR WORK?
Yes 1 ◯ No 2 ◯ Go to 64

57 •IN THE PAST 4 WEEKS, WHAT HAS ... DONE TO FIND WORK? *Mark all methods reported*
Nothing ◯, Go to 62

•IN THE PAST 4 WEEKS, HAS ... DONE ANYTHING ELSE TO FIND WORK? *Mark all other methods reported*
For each method given ask
•WHEN DID ... LAST _____ ? (Repeat method)

Checked with	Method used	No. of weeks ago (excl. svy week)
PUBLIC employment AGENCY	2 ◯	
PRIVATE employment AGENCY	3 ◯	
UNION	4 ◯	
EMPLOYERS directly	5 ◯	
FRIENDS or relatives	6 ◯	
Placed or answered ADS	7 ◯	
LOOKED at ads	8 ◯	
OTHER Specify in NOTES	9 ◯	

58 UP TO THE END OF LAST WEEK, HOW MANY WEEKS HAS ... BEEN LOOKING FOR WORK?
DO NOT COUNT WEEKS WHEN HE/SHE ALSO WORKED

59 WHAT WAS ... s MAIN ACTIVITY BEFORE HE/SHE STARTED TO LOOK FOR WORK?
Enter code

60 IS ... LOOKING FOR A JOB TO LAST MORE THAN 6 MONTHS?
Yes 1 ◯ (More than 6 months) No 2 ◯ (6 months or less)

61 IS ... LOOKING FOR A FULL-TIME OR PART-TIME JOB?
Full-time ◯ (30 or more hours per week) Part-time 2 ◯ (Less than 30 hours per week)
Go to 63

62 WHAT WAS THE MAIN REASON WHY ... DID NOT LOOK FOR WORK LAST WEEK?
Enter code

63 WAS THERE ANY REASON WHY ... COULD NOT TAKE A JOB LAST WEEK?
Enter code

64 *INTERVIEWER CHECK ITEM*
•If 'No. (never worked) in 50 2 ◯ go to 80
•If upper circle in 52 is marked 3 ◯ go to 90
•Otherwise ◯ go to 72

DESCRIPTION OF MAIN JOB OR BUSINESS

72 FOR WHOM DID ... WORK? *(Name of business, government dept. or agency, or person)*
No change ◯, ▶ | or ▶

73 WHEN DID ... START WORKING FOR THIS EMPLOYER?
No change ◯, ▶ (Mo. Yr.) | or ▶ (Mo. Yr.)
If month unknown enter - - in month

74 WHAT KIND OF BUSINESS, INDUSTRY OR SERVICE WAS THIS? *(Give full description e.g. paper-box manufacturing, retail shoe store, municipal government)*
No change ◯, ▶ | or ▶

75 WHAT KIND OF WORK WAS ... DOING? *(Give full description e.g. shoe salesperson, primary school teacher, invoice clerk)*
No change ◯, ▶ | or ▶

76 Class of worker
Main job: No change ◯, | or ▶ | Enter code

77 Other job: No change ◯, | or ▶ | Enter code | go to 80

NOTES — See over for additional NOTES ◯

Item no. | 99 | 99 | 99 | 99

EDUCATIONAL ACTIVITY

80 LAST WEEK, WAS ... ATTENDING A SCHOOL, COLLEGE, OR UNIVERSITY?
Yes 1 ◯ No 2 ◯ Go to 82

81 WAS ... ENROLLED AS A FULL-TIME OR A PART-TIME STUDENT?
Full-time 1 ◯ Part-time 2 ◯

82 WHAT KIND OF SCHOOL WAS THIS?
Enter code

INFORMATION SOURCE

90 *HRD page-line No. of person providing the above information*
Last interview | This interview

Statistics Canada Statistique Canada

HOUSEHOLD SURVEYS DIVISION

SURVEY OF APPRENTICES AND JOURNEYMEN

1 Form No. 06 2 Docket No. 3 Survey Date 1086

4 Assignment No. 5 HRD page-line No.

6 Given Name

7 Surname

Telephone no.

CALL BACK NOTES

INTRODUCTION: APPRENTICESHIP IS A COMBINATION OF ON-THE-JOB AND TECHNICAL TRAINING WHICH LEADS TO CERTIFICATION AS A QUALIFIED JOURNEYMAN. IN ALBERTA, THE APPRENTICESHIP PROGRAM COMES UNDER THE DIRECTION OF APPRENTICESHIP AND TRADE CERTIFICATION BRANCH OF ALBERTA MANPOWER WHO IS SPONSORING THIS SURVEY. THE SURVEY IS BEING CONDUCTED TO DETERMINE THE NUMBER OF EMPLOYED AND UNEMPLOYED JOURNEYMEN AND APPRENTICES BY TRADE, AND THE NUMBER OF JOURNEYMEN AND APPRENTICES NOT WORKING IN THEIR TRADE.

NOTE: OBTAIN ANSWERS DIRECTLY FROM EACH RESPONDENT. THREE TELEPHONE CALL BACKS SHOULD BE MADE BEFORE ACCEPTING PROXY RESPONSE.

10. IS ... A REGISTERED APPRENTICE IN ALBERTA?
YES 1 ◯ NO 2 ◯ GO TO 13

11. IN WHICH TRADE IS ... TAKING HIS/HER APPRENTICESHIP?
☐☐ *ENTER CODE*

12. LAST WEEK DID ... WORK IN A "HANDS-ON" CAPACITY IN THIS TRADE?
YES 3 ◯ NO 4 ◯

13. IS ... A JOURNEYMAN WITH AN ALBERTA TRADE CERTIFICATE?
YES 5 ◯ NO 6 ◯ GO TO 17

14. IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE CERTIFICATE?
☐☐ *ENTER CODE*
IF ... HOLDS MORE THAN ONE ALBERTA TRADE CERTIFICATE ENTER CODE OF TRADE WHICH RESPONDENT FEELS IS HIS/HER MAIN TRADE.

15. LAST WEEK, DID ... WORK IN A "HANDS-ON" CAPACITY IN THIS TRADE?
YES 7 ◯ GO TO 17 NO 8 ◯

16. HAS ... WORKED IN AN "HANDS-ON" CAPACITY IN THIS TRADE AT ANY TIME IN THE PAST 12 MONTHS?
YES 1 ◯ NO 2 ◯

17. INFORMATION SOURCE: *ENTER HRD PAGE-LINE NUMBER OF PERSON PROVIDING THE ABOVE INFORMATION.* ☐☐

99 NOTES See over for additional NOTES ◯

Item No. Item No.

FRANÇAIS AU VERSO

*Authority – Statistics Act, Chapter 15 Statutes of Canada 1970 – 71 – 72 *

8-5803-147 7-8-85

Statistique Canada Statistics Canada

DIVISION DES ENQUÊTES-MÉNAGE

ENQUÊTE AUPRÈS DES APPRENTIS ET DES MANOEUVRES

1 [0 6] N° de la formule

2 [ ] N° de dossier

3 [1 0 8 6] Date d'enquête

4 [ ] N° de tâche

5 [ ] N° de page-ligne du DM

6 Prénom

7 Nom de famille

N° de téléphone [ ] - [ ]

NOTES DE RAPPEL

INTRODUCTION: L'APPRENTISSAGE EST UNE COMBINAISON DE FORMATION EN COURS D'EMPLOI ET DE FORMATION TECHNIQUE MENANT À UN CERTIFICAT DE COMPÉTENCE. EN ALBERTA, LE PROGRAMME D'APPRENTISSAGE RELÈVE DE L'APPRENTICESHIP AND TRADE CERTIFICATION BRANCH OF ALBERTA MANPOWER, PROMOTEUR DE L'ENQUÊTE. CELLE-CI EST MENÉE POUR DÉTERMINER LE NOMBRE DE MANOEUVRES ET D'APPRENTIS OCCUPÉS ET EN CHÔMAGE, SELON LE MÉTIER, AINSI QUE LE NOMBRE DE MANOEUVRES ET D'APPRENTIS NE PRATIQUANT PAS LEUR MÉTIER.

NOTA: *OBTENEZ LES RÉPONSES DIRECTEMENT DE CHAQUE ENQUÊTÉ. IL FAUT RAPPELER TROIS FOIS AVANT D'ACCEPTER UNE DÉCLARATION PAR PERSONNE INTERPOSÉE.*

10. ... EST-IL(ELLE) UN(E) APPRENTI(E) ENREGISTRÉ(E) EN ALBERTA?

OUI 1 ◯ NON 2 ◯ PASSEZ À 13

11. DANS QUEL MÉTIER ... FAIT-IL(ELLE) SON APPRENTISSAGE? [ ] *INSCRIVEZ LE CODE*

12. LA SEMAINE DERNIÈRE, ... A-T-IL(ELLE) PRATIQUÉ SON MÉTIER?

OUI 3 ◯ NON 4 ◯

13. ... EST-IL(ELLE) UN MANOEUVRE TITULAIRE D'UN CERTIFICAT DE COMPÉTENCE EN L'ALBERTA?

OUI 5 ◯ NON 6 ◯ PASSEZ À 17

14. DANS QUEL MÉTIER ... EST-IL(ELLE) TITULAIRE D'UN CERTIFICAT DE COMPÉTENCE DE L'ALBERTA? [ ] *INSCRIVEZ LE CODE*

SI ... EST TITULAIRE DE PLUS D'UN CERTIFICAT DE COMPÉTENCE DE L'ALBERTA, INSCRIVEZ LE CODE DU MÉTIER QUE L'ENQUÊTÉ(E) CONSIDÈRE COMME SON MÉTIER PRINCIPAL.

15. LA SEMAINE DERNIÈRE ... A-T-IL(ELLE) PRATIQUÉ SON MÉTIER?

OUI 7 ◯ PASSEZ À 17 NON 8 ◯

16. ... A-T-IL(ELLE) PRATIQUÉ SON MÉTIER À UN MOMENT DONNÉ AU COURS DES 12 DERNIERS MOIS?

OUI 1 ◯ NON 2 ◯

17. SOURCE D'INFORMATION: *INSCRIVEZ LE NUMÉRO DE LA PAGE-LIGNE DU DM DE LA PERSONNE FOURNISSANT LES INFORMATIONS CI-DESSUS.* [ ]

99 NOTES Servez-vous du verso pour NOTES supplémentaires ◯

N° de poste [ ] [ ]

N° de poste [ ] [ ]

SEE REVERSE FOR ENGLISH

*Déclaration exigée en vertu de la loi sur la statistique chapitre 15, Statuts du Canada de 1970 – 71 – 72

8-5103-147 7-8-86

Statistics Canada Statistique Canada

Apprenticeship Trades

Code	Name of Trade	Description	CODE SHEET
01	**Agricultural Mechanic**	Services, repairs, and sets up agricultural machines.	
02	**Appliance Serviceman**	Repairs and services household appliances.	
03	**Auto Body Mechanic (P)**	Repairs and refinishes automobile bodies.	
04	**Baker**	Makes bread, pastries, cookies, and cakes.	
05	**Barber (P)**	Cuts, trims, waves, and colours hair; shaves beards, mustaches, etc.	
06	**Beautician (P)**	Cuts, trims, waves, and colours hair; gives facial treatments, etc.	
07	**Boilermaker**	Builds, tests, and repairs airtight and liquid-tight containers.	
08	**Bricklayer**	Lays brick, hollow tile, and concrete block for buildings or other structures.	
09	**Cabinetmaker (1)**	Builds custom or production-type fixtures and furniture of wood and wood substitutes.	
10	**Carpenter**	Works with wood and wood substitutes in the construction of buildings and other structures.	
11	**Cement Finisher**	Places, finishes, cuts, and repairs concrete.	
12	**Communication Electrician**	Installs, services, and repairs telephone equipment and related communication systems.	
13	**Cook**	Prepares food and meals in hotels, restaurants, and institutions.	
14	**Electrical Rewind Mechanic**	Repairs and rebuilds electric motors, generators, transformers, controls, and other electrical equipment.	
15	**Electrician (P)**	Installs, alters, repairs, and maintains electrical systems in buildings to supply heat, light, power, controls, signal or fire alarms.	
16	**Electronic Technician (P)**	Services and repairs radio and television-receiving equipment.	
17	**Elevator Constructor (P)**	Installs, repairs, and maintains elevators, escalators, moving walkways, etc.	
18	**Floorcovering Mechanic**	Installs many types of resilient and carpet floor coverings in buildings.	
19	**Gasfitter (P)**	Installs piping and appliances for heating with natural and propane gas.	
20	**Glassworker**	Cuts and installs glass for windows, showcases, and curtain-wall building construction.	
21	**Heavy Duty Mechanic (P)**	Services and repairs construction and other heavy industrial mobile and stationary equipment.	
22	**Heavy Equipment Operator (2)**	Operates power cranes or mobile cranes to lift and swing materials during construction.	
23	**Instrument Mechanic**	Maintains, services, repairs, and installs measuring and control instruments used in process industries.	
24	**Insulator**	Installs insulation materials in commercial and industrial structures.	
25	**Ironworker**	Builds, erects, constructs, and joins structural steel on buildings, bridges, and towers.	

75030-485 16-09-86

(Cont'd....)

Code	Name of Trade	Description	CODE SHEET
26	Landscape Gardener	Grows, installs, and maintains trees, plants, and grasses in all environments.	
27	Lather-Interior Systems Mechanic	Installs metal, plaster lath, and interior finishes in construction of buildings.	
28	Machinist	Works with metals and operates metal-cutting and shaping machinery.	
29	Millwright	Installs and maintains machinery in factories and other production plants.	
30	Motorcycle Mechanic (P)	Assembles, services, and repairs two-wheeled single-tracked motor vehicles.	
31	Motor Mechanic (P)	Services and repairs automobiles.	
32	Painter and Decorator	Applies paint, varnish, and wallpaper to interior and exterior building surfaces, and to other fittings and furnishings.	
33	Partsman	Stores and dispenses automotive, heavy duty, or farm machinery parts.	
34	Plasterer	Applies plaster and stucco including decorative finishes.	
35	Plumber (P)	Installs water services and sanitary drainage.	
36	Power Lineman	Constructs, maintains, or operates electrical transmission or distribution systems.	
37	Power System Electrician	Constructs or maintains electrical utility power system and power station equipment, or metering, protection, and control apparatus.	
38	Printing and Graphic Arts Craftsman	Prepares, produces, and finishes printed material.	
39	Recreation Vehicle Mechanic (P)	Repairs mobile motor homes and recreation vehicles.	
40	Refrigeration Mechanic (P)	Installs and services refrigerating and air conditioning systems.	
41	Roofer	Installs and maintains built-up roofs, composition roof coverings, shakes, shingles, and plastic membranes.	
42	Sawfiler	Repairs, sets, and sharpens band saws, chain saws, hand saws, circular saws, and other types of saw blades.	
43	Sheet Metal Mechanic (P)	Designs, fabricates, installs, and repairs ducts and fittings for heating, ventilating, air conditioning, exhaust, and dust collecting systems.	
44	Sprinkler Fitter	Installs and maintains fixed fire extinguishing systems.	
45	Steamfitter-Pipefitter (P)	Installs steam and hot water heating systems and industrial process piping systems.	
46	Steel Fabricator	Works in the shop fabrication, preparation, layout, assembly, or repair of structural and miscellaneous components or vessels.	
47	Tilesetter	Works with ceramic tile, terazzo, and marble.	
48	Tool and Die Maker	Manufactures and repairs jigs, fixtures, gauges, dies, molds, press tools, and various types of small mechanical devices.	
49	Transport Refrigeration Mechanic	Installs, repairs, and maintains equipment in mobile units used to haul perishable loads.	
50	Water Well Driller	Drills, installs, and services water wells and installs and services water well pumps.	
51	Welder (P)	Joins metal by fusion using oxyacetylene flame, electric arc, or other welding processes.	
52	Other Trade	Specify in notes	

11. RECORD DESCRIPTION

APPRENTICES AND JOURNEYMEN SURVEY MICRO FILE

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 1
1	RECNO	6	0001-0006	RECORD NUMBER	
2	SURDTE	4	0007-0010	SURVEY DATE (MMYY)	
3	PROV	2	0011-0012	REGION AND PROVINCE 01 AREA 1 02 AREA 2 03 AREA 3	
4	FILLER	1	0013	FILLER	
5	MARSTAT	1	0014	MARITAL STATUS 1 MARRIED 2 SINGLE 3 OTHER	
6	RELHD	1	0015	RELATIONSHIP TO HEAD OF FAMILY 1 HEAD 2 SPOUSE 3 SON-DAUGHTER 4 PARENT (IN-LAW) 5 SON-DAUGHTER (IN-LAW) 6 OTHER RELATIVE	
7	AGE	1	0016	AGE GROUP 1 15-24 YEARS 2 25-44 YEARS 3 45-64 YEARS 4 65 YEARS AND OVER	
8	EDUCER	1	0017	EDUCATION 1 NONE OR ELEMENTARY 2 HIGH SCHOOL (SOME OR COMPLETED) 3 SOME POST-SECONDARY 4 POST-SECONDARY CERT. OR DIPLOMA 5 UNIVERSITY	
9	ACTIV	1	0018	ACTIVITY IN REFERENCE WEEK 1 AT WORK 2 NOT AT WORK, HAS A JOB 3 NOT AT WORK, NO JOB	

APPRENTICES AND JOURNEYMEN SURVEY MICRO FILE

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 2
9	ACTIV	1	0018	ACTIVITY IN REFERENCE WEEK 4 PERMANENTLY UNABLE TO WORK	** CONTINUED **
10	MULTIJOB	1	0019	MULTIPLE JOB HOLDER 1 YES 2 NO	
11	TOTHRSWK	2	0020-0021	TOTAL USUAL HOURS WORKED 00:65	
12	WHYPT	1	0022	REASON FOR PART-TIME WORK BLANK 1 PERSONAL OR FAMILY RESPONSIBILITIES 2 GOING TO SCHOOL 3 COULD ONLY FIND PART-TIME WORK 4 DID NOT WANT FULL-TIME WORK 5 OTHER REASONS	
13	EXTRHRS	2	0023-0024	EXTRA HOURS WORKED BLANK 00:30	
14	HRSLOST	2	0025-0026	HOURS LOST BLANK 00:41	
15	WHYLOSS	1	0027	REASONS FOR TIME LOSS BLANK 1 ILLNESS OR DISIBLITY OR PERSONAL 2 BAD WEATHER 3 LABOUR DISPUTE 4 LAYOFF 5 LOST JOB/NEW JOB 6 VACATION 7 WORKING SHORT-TIME 8 OTHER	
16	STARTJOB	2	0028-0029	WEEKS UNTIL NEW JOB STARTS BLANK 00:13	

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS
17	HRSWRKED	2	0030-0031	TOTAL ACTUAL HOURS WORKED BLANK 00:65
18	PAIDOFF	1	0032	WAGES OR SALARY FOR TIME OFF BLANK 1 YES 2 NO
19	WKSOFF	2	0033-0034	WEEKS OF CONTINUOUS ABSENCE BLANK 00:18
20	LOOKED6M	1	0035	LOOKED FOR WORK IN PAST SIX MONTHS BLANK 1 YES 2 NO 3 N/A
21	LOOKED4W	1	0036	LOOKED FOR WORK IN PAST FOUR WEEKS 1 YES 2 NO
22	HOWLOOK1	1	0037	METHODS USED: CONTACTED EMPLOYERS BLANK 1 YES 2 NO
23	HOWLOOK2	1	0038	METHODS USED: USED PUBLIC EMPLOYMENT AGENCY BLANK 1 YES 2 NO
24	HOWLOOK3	1	0039	METHODS USED: LOOKED AT ADS BLANK 1 YES 2 NO

APPRENTICES AND JOURNEYMEN SURVEY MICRO FILE

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 4
25	HOWLOOK4	1	0040	METHODS USED: USED OTHER METHODS BLANK 1 YES 2 NO	
26	LOOKING	2	0041-0042	WEEKS LOOKING FOR WORK BLANK 01:39	
27	WHYLEAVE	1	0043	REASON FOR LEAVING LAST JOB BLANK 1 ILLNESS OR DISABILITY 2 PERSONAL OR FAMILY RESPONSIBILITIES 3 GOING TO SCHOOL 4 LOST JOB OR LAID OFF 5 RETIRED 6 OTHER REASONS 7 LAST WORKED MORE THAN 5 YEARS AGO 8 NEVER WORKED	
28	DDBEFORE	1	0044	ACTIVITY BEFORE STARTED LOOKING FOR WORK BLANK 1 WORKING 2 KEEPING HOUSE 3 SCHOOL 4 OTHER	
29	WRKSGHT	1	0045	TYPE OF WORK SOUGHT BLANK 1 FULL-TIME, PERMANENT 2 FULL-TIME, TEMPORARY 3 PART-TIME, PERMANENT 4 PART-TIME, TEMPORARY	
30	WHYNOTLK	1	0046	REASON FOR NOT LOOKING IN REFERENCE WEEK BLANK 1 ILLNESS OR PERSONAL RESPONSIBILITIES 2 AT SCHOOL 3 NO LONGER INTERESTED OR FOUND JOB 4 AWAITING RECALL OR REPLY 5 BELIEVES NO WORK AVAILABLE 6 OTHER REASONS	

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 5
31	AVAILWRK	1	0047	AVALIBILITY FOR WORK BLANK 1 NOT AVAILABLE; GOING TO SCHOOL 2 NOT AVAILABLE; OTHER REASONS 3 AVAILABLE	
32	INSCHOOL	1	0048	SCHOOL ENROLMENT BLANK 1 NOT ENROLLED 2 PRIMARY OR SECONDARY 3 UNIVERSITY, FULL-TIME 4 UNIVERSITY, PART-TIME 5 COMMUNITY COLLEGE, FULL-TIME 6 COMMUNITY COLLEGE, PART-TIME 7 OTHER, FULL-TIME 8 OTHER, PART-TIME	
33	FILLER	1	0049	FILLER	
34	TYPJOB	1	0050	TYPE OF JOB (PRESENT OR PREVIOUS) 1 FULL-TIME 2 PART-TIME 3 N/A	
35	LFSTATUS	1	0051	LABOUR FORCE STATUS 1 EMPLOYED 2 UNEMPLOYED 3 NOT IN LABOUR FORCE	
36	CLSWKER	1	0052	CLASS OF WORKER 1 PAID 2 OTHER	
37	IND	2	0053-0054	INDUSTRY 01 AGRICULTURE 02 OTHER PRIMARY 03 MANUFACTURING, NON-DURABLES 04 MANUFACTURING, DURABLES 05 CONSTRUCTION 06 TRANSPORTATION, ETC. 07 WHOLESALE TRADE 08 RETAIL TRADE 09 FINANCE, ETC.	

APPRENTICES AND JOURNEYMEN SURVEY MICRO FILE

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 6
37	IND	2	0053-0054	INDUSTRY	** CONTINUED **
				10 COMMUNITY SERVICES	
				11 PERSONAL SERVICES	
				12 BUSINESS AND MISC. SERVICES	
				13 PUBLIC ADMINISTRATION	
				14 NEVER WORKED	
				15 LAST WORKED MORE THAN 5 YEARS AGO	
				16 PERMANENTLY UNABLE TO WORK	
38	OCC	2	0055-0056	OCCUPATION	
				01 MANAGERIAL	
				02 PROFESSIONAL	
				03 TEACHING	
				04 MEDICINE	
				05 CLERICAL	
				06 SALES	
				07 SERVICES	
				08 PRIMARY OCCUPATIONS	
				09 MINING, PROCESSING, MACHINING	
				10 FABRICATION	
				11 CONSTRUCTION	
				12 TRANSPORTATION, MATERIALS HANDLING, OTHER CRAFTS	
				13 NEVER WORKED BEFORE	
				14 LAST WORKED MORE THAN 5 YEARS AGO, OR PERMANENTLY UNABLE TO WORK	
39	DURUNEMP	2	0057-0058	DURATION OF UNEMPLOYMENT	
				BLANK	
				00:53	
40	TENURE	1	0059	JOB TENURE	
				BLANK	
				1 1-6 MONTHS	
				2 7-12 MONTHS	
				3 1-5 YEARS	
				4 6-10 YEARS	
				5 11-20 YEARS	
				6 OVER 20 YEARS	
41	DURNOJOB	1	0060	DURATION OF JOBLESSNESS	
				BLANK	
				1 0-1 MONTH	
				2 1-3 MONTHS	
				3 4-6 MONTHS	

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 7
41	DURNOJOB	1	0060	DURATION OF JOBLESSNESS 4 7-12 MONTHS 5 13-24 MONTHS 6 2-5 YEARS 7 6-10 YEARS 8 OVER 10 YEARS	** CONTINUED **
42	DURLSTWK	1	0061	DURATION OF PREVIOUS JOB BLANK 1 NEVER WORKED 2 1-3 MONTHS 3 4-6 MONTHS 4 7-12 MONTHS 5 1-5 YEARS 6 OVER 5 YEARS	
43	FLOWS	1	0062	FLOWS INTO UNEMPLOYMENT BLANK 1 JOB LOSERS 2 JOB LEAVERS 3 NEW ENTRANTS 4 RE-ENTRANTS-ONE YEAR OR LESS 5 RE-ENTRANTS-GREATER THAN 1 YEAR	
44	FILLER	33	0063-0095	FILLER	
45	Q10	1	0096	IS ... A REGISTERED APPRENTICE IN ALBERTA? 1 YES 2 NO 0 NOT STATED BLANK	
46	Q11	2	0097-0098	IN WHICH TRADE IS ... TAKING HIS/HER APPRENTISHIP? 01 CONSTRUCTION TRADE 02 ELECTRICAL TRADE 03 INDUSTRIAL TRADE 04 MECHANICAL TRADE 05 METAL TRADE 06 PIPING TRADE 07 SERVICE TRADE 08 OTHER TRADE 09 NOT STATED 00 NOT APPLICABLE	

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 8
47	Q12	1	0099	LAST WEEK DID ... WORK IN A "HANDS-ON" CAPACITY IN THIS TRADE? 3 YES 4 NO 0 NOT STATED BLANK	
48	Q13	1	0100	IS ... A JOURNEYMAN WITH AN ALBERTA TRADE CERTIFICATE? 5 YES 6 NO 0 NOT STATED BLANK	
49	Q14	2	0101-0102	IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE CERTIFICATE? 01 AGRICULTURAL MECHANIC 02 APPLIANCE SERVICEMAN 03 AUTO BODY MECHANIC 04 BAKER 05 BARBER 06 BEAUTICIAN 07 BOILERMAKER 08 BRICKLAYER 09 CABINETMAKER 10 CARPENTER 11 CEMENT FINISHER 12 COMMUNICATION ELECTRICIAN 13 COOK 14 ELECTRICAL REWIND MECHANIC 15 ELECTRICIAN 16 ELECTRONIC TECHNICIAN 17 ELEVATOR CONSTRUCTOR 18 FLOORCOVERING MECHANIC 19 GASFITTER 20 GLASSWORKER 21 HEAVY DUTY MECHANIC 22 HEAVY EQUIPMENT OPERATOR 23 INSTRUMENT MECHANIC 24 INSULATOR 25 IRONWORKER 26 LANDSCAPE GARDENER 27 LATHER-INTERIOR SYSTEMS MECHANIC 28 MACHINIST 29 MILLWRIGHT 30 MOTORCYCLE MECHANIC 31 MOTOR MECHANIC	

FIELD	ACRONYM	LENGTH	POSITION	QUESTION AND VARIABLE DESCRIPTIONS	PAGE 9
49	Q14	2	0101-0102	IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE CERTIFICATE? 32 PAINTER AND DECORATOR 33 PARTSMAN 34 PLASTERER 35 PLUMBER 36 POWER LINEMAN 37 POWER SYSTEM ELECTRICIAN 38 PRINTING AND GRAPHIC ARTS CRAFTSMAN 39 RECREATION VEHICLE MECHANIC 40 REFRIGERATION MECHANIC 41 ROOFER 42 SAWFILER 43 SHEET METAL MECHANIC 44 SPRINKLER FITTER 45 STEAMFITTER-PIPEFITTER 46 STEEL FABRICATOR 47 TILESETTER 48 TOOL AND DIE MAKER 49 TRANSPORT REFRIGERATION MECHANIC 50 WATER WELL DRILLER 51 WELDER 52 OTHER TRADE 00 NOT STATED 53 NOT APPLICABLE	** CONTINUED **
50	Q15	1	0103	LAST WEEK, DID ... WORK IN A "HANDS-ON" CAPACITY APACITY IN THIS TRADE? 7 YES 8 NO 0 NOT STATED BLANK	
51	Q16	1	0104	HAS ... WORKED IN A "HANDS-ON" CAPACITY IN THIS TRADE AT ANY TIME IN THE PAST 12 MONTHS? 1 YES 2 NO 0 NOT STATED BLANK	
52	APPWGHT	9	0105-0113	APP WEIGHT (NNNNN.NNNN)	

ALBERTA SURVEY OF APPRENTICES AND JOURNEYMEN (OCTOBER 1986)
TABLE 1:UNWEIGHTED COUNTS MICRO FILE

	Total
Total	9,787
IS ... A REGISTERED APPRENTICE IN ALBERTA	
YES	166
NO	9,621
IN WHICH TRADE IS ... TAKING HIS/HER APPRENTISHIP?	
NOT APPLICABLE	9,621
CONSTRUCTION TRADE	26
ELECTRICAL TRADE	24
INDUSTRIAL TRADE	10
MECHANICAL TRADE	45
METAL TRADE	22
PIPING TRADE	10
SERVICE TRADE	18
NOT STATED	11
LAST WEEK DID ... WORK IN A HANDS-ON CAPACITY IN THIS TRADE?	
NOT APPLICABLE	9,621
YES	93
NO	73
IS ... A JOURNEYMAN WITH AN ALBERTA TRADE CERTIFICATE	
YES	752
NO	9,035
IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE CERTIFICATE?	
NOT APPLICABLE	9,035
AUTO BODY MECHANIC	27
BAKER	7
BARBER	7
BEAUTICIAN	52
BOILERMAKER	11
BRICKLAYER	9
CABINETMAKER	2
CARPENTER	59
CEMENT FINISHER	1
COMMUNICATION	28
COOK	15
ELECTRICAL REWIND MECHANIC	3
ELECTRICIAN	66
ELECTRONIC TECHNICIAN	10
ELEVATOR CONSTRUCTOR	4

See footnotes at end of table.

ALBERTA SURVEY OF APPRENTICES AND JOURNEYMEN (OCTOBER 1986)
TABLE 1:UNWEIGHTED COUNTS MICRO FILE -Continued

	Total
IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE CERTIFICATE?	
FLOORCOVERING MECHANIC	2
GASFITTER	12
GLASSWORKER	1
HEAVY DUTY MECHANIC	65
HEAVY EQUIPMENT OPERATOR	13
INSTRUMENT MECHANIC	6
INSULATION	6
IRONWORKER	7
LATHER	1
MACHINIST	16
MILLWRIGHT	25
MOTORCYCLE MECHANIC	3
MOTOR MECHANIC	61
PAINTER AND DECORATOR	5
PARTSMAN	21
PLASTERER	1
PLUMBER	26
POWER LINEMAN	12
POWER SYSTEM ELECTRICIAN	6
PRINTING AND GRAPHIC ARTS CRAFTSMAN	6
RECREATION VEHICLE MECHANIC	2
REFRIGERATION MECHANIC	5
ROOFER	2
SAWFILER	2
SHEET METAL MECHANIC	11
SPRINKLER FITTER	1
STEAMFITTER-PIPEFITTER	20
STEEL FABRICATOR	2
WATER WELL DRILLER	3
WELDER	75
OTHER TRADE	22
NOT STATED	11
LAST WEEK, DID ... WORK IN A HANDS-ON CAPACITY IN THIS TRADE	
NOT APPLICABLE	9,035
YES	424
NO	328

See footnotes at end of table.

ALBERTA SURVEY OF APPRENTICES AND JOURNEYMEN (OCTOBER 1986)
TABLE 1:UNWEIGHTED COUNTS MICRO FILE -Continued

	Total
HAS ... WORKED IN A HANDS-ON CAPACITY IN THIS TRADE AT ANY TIME IN THE PAST 12 MONTHS?	
NOT APPLICABLE	9,459
YES	135
NO	193

12. SAMPLING VARIABILITY TABLES

CRUDE SAMPLING VARIABILITY TABLES FOR SURVEY OF APPRENTICES AND JOURNEYMEN IN ALBERTA - OCT 1986

APPRENTICES

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	47.3	47.1	46.9	46.1	44.9	43.6	42.3	41.0	39.6	38.2	36.7	33.5	25.9	15.0
2	********	33.3	33.1	32.6	31.8	30.9	29.9	29.0	28.0	27.0	25.9	23.7	18.3	10.6
3	********	27.2	27.1	26.6	25.9	25.2	24.4	23.7	22.9	22.0	21.2	19.3	15.0	8.6
4	********	23.5	23.4	23.1	22.5	21.8	21.2	20.5	19.8	19.1	18.3	16.7	13.0	7.5
5	********	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
6	********	19.2	19.1	18.8	18.3	17.8	17.3	16.7	16.2	15.6	15.0	13.7	10.6	6.1
7	********	17.8	17.7	17.4	17.0	16.5	16.0	15.5	15.0	14.4	13.9	12.6	9.8	5.7
8	********	16.7	16.6	16.3	15.9	15.4	15.0	14.5	14.0	13.5	13.0	11.8	9.2	5.3
9	********	15.7	15.6	15.4	15.0	14.5	14.1	13.7	13.2	12.7	12.2	11.2	8.6	5.0
10	********	14.9	14.8	14.6	14.2	13.8	13.4	13.0	12.5	12.1	11.6	10.6	8.2	4.7
11	********	14.2	14.1	13.9	13.5	13.2	12.8	12.4	11.9	11.5	11.1	10.1	7.8	4.5
12	********	13.6	13.5	13.3	13.0	12.6	12.2	11.8	11.4	11.0	10.6	9.7	7.5	4.3
13	********	13.1	13.0	12.8	12.5	12.1	11.7	11.4	11.0	10.6	10.2	9.3	7.2	4.2
14	********	12.6	12.5	12.3	12.0	11.7	11.3	11.0	10.6	10.2	9.8	8.9	6.9	4.0
15	********	12.2	12.1	11.9	11.6	11.3	10.9	10.6	10.2	9.9	9.5	8.6	6.7	3.9
16	**********	**********	11.7	11.5	11.2	10.9	10.6	10.2	9.9	9.5	9.2	8.4	6.5	3.7
17	**********	**********	11.4	11.2	10.9	10.6	10.3	9.9	9.6	9.3	8.9	8.1	6.3	3.6
18	**********	**********	11.0	10.9	10.6	10.3	10.0	9.7	9.3	9.0	8.6	7.9	6.1	3.5
19	**********	**********	10.7	10.6	10.3	10.0	9.7	9.4	9.1	8.8	8.4	7.7	5.9	3.4
20	**********	**********	10.5	10.3	10.0	9.8	9.5	9.2	8.9	8.5	8.2	7.5	5.8	3.3
21	**********	**********	10.2	10.1	9.8	9.5	9.2	8.9	8.6	8.3	8.0	7.3	5.7	3.3
22	**********	**********	10.0	9.8	9.6	9.3	9.0	8.7	8.4	8.1	7.8	7.1	5.5	3.2
23	**********	**********	9.8	9.6	9.4	9.1	8.8	8.5	8.3	8.0	7.6	7.0	5.4	3.1
24	**********	**********	9.6	9.4	9.2	8.9	8.6	8.4	8.1	7.8	7.5	6.8	5.3	3.1
25	**********	**********	9.4	9.2	9.0	8.7	8.5	8.2	7.9	7.6	7.3	6.7	5.2	3.0
30	**********	**********	8.6	8.4	8.2	8.0	7.7	7.5	7.2	7.0	6.7	6.1	4.7	2.7
35	**********	**********	**********	7.8	7.6	7.4	7.2	6.9	6.7	6.5	6.2	5.7	4.4	2.5
40	**********	**********	**********	7.3	7.1	6.9	6.7	6.5	6.3	6.0	5.8	5.3	4.1	2.4
45	**********	**********	**********	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.0	3.9	2.2
50	**********	**********	**********	6.5	6.4	6.2	6.0	5.8	5.6	5.4	5.2	4.7	3.7	2.1
55	**********	**********	**********	6.2	6.1	5.9	5.7	5.5	5.3	5.1	4.9	4.5	3.5	2.0
60	**********	**********	**********	6.0	5.8	5.6	5.5	5.3	5.1	4.9	4.7	4.3	3.3	1.9
65	**********	**********	**********	5.7	5.6	5.4	5.3	5.1	4.9	4.7	4.5	4.2	3.2	1.9
70	**********	**********	**********	5.5	5.4	5.2	5.1	4.9	4.7	4.6	4.4	4.0	3.1	1.8
75	**********	**********	**********	5.3	5.2	5.0	4.9	4.7	4.6	4.4	4.2	3.9	3.0	1.7
80	**********	**********	**********	**********	5.0	4.9	4.7	4.6	4.4	4.3	4.1	3.7	2.9	1.7
85	**********	**********	**********	**********	4.9	4.7	4.6	4.4	4.3	4.1	4.0	3.6	2.8	1.6
90	**********	**********	**********	**********	4.7	4.6	4.5	4.3	4.2	4.0	3.9	3.5	2.7	1.6
95	**********	**********	**********	**********	4.6	4.5	4.3	4.2	4.1	3.9	3.8	3.4	2.7	1.5
100	**********	**********	**********	**********	4.5	4.4	4.2	4.1	4.0	3.8	3.7	3.3	2.6	1.5
125	**********	**********	**********	**********	4.0	3.9	3.8	3.7	3.5	3.4	3.3	3.0	2.3	1.3
150	**********	**********	**********	**********	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.7	2.1	1.2
200	**********	**********	**********	**********	**********	3.1	3.0	2.9	2.8	2.7	2.6	2.4	1.8	1.1
250	**********	**********	**********	**********	**********	**********	2.7	2.6	2.5	2.4	2.3	2.1	1.6	0.9
300	**********	**********	**********	**********	**********	**********	2.4	2.4	2.3	2.2	2.1	1.9	1.5	0.9
350	**********	**********	**********	**********	**********	**********	**********	2.2	2.1	2.0	2.0	1.8	1.4	0.8
400	**********	**********	**********	**********	**********	**********	**********	**********	2.0	1.9	1.8	1.7	1.3	0.7
450	**********	**********	**********	**********	**********	**********	**********	**********	1.9	1.8	1.7	1.6	1.2	0.7
500	**********	**********	**********	**********	**********	**********	**********	**********	**********	1.7	1.6	1.5	1.2	0.7
750	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	1.2	0.9	0.5
1000	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.8	0.5

CRUDE SAMPLING VARIABILITY TABLES FOR SURVEY OF APPRENTICES AND JOURNEYMEN IN ALBERTA - OCT 1986

JOURNEYMEN

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	49.0	48.7	48.5	47.8	46.5	45.2	43.8	42.4	41.0	39.5	37.9	34.6	26.8	15.5
2	********	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
3	********	28.1	28.0	27.6	26.8	26.1	25.3	24.5	23.7	22.8	21.9	20.0	15.5	8.9
4	********	24.4	24.3	23.9	23.2	22.6	21.9	21.2	20.5	19.7	19.0	17.3	13.4	7.7
5	********	21.8	21.7	21.4	20.8	20.2	19.6	19.0	18.3	17.7	17.0	15.5	12.0	6.9
6	********	19.9	19.8	19.5	19.0	18.4	17.9	17.3	16.7	16.1	15.5	14.1	11.0	6.3
7	********	18.4	18.3	18.0	17.6	17.1	16.6	16.0	15.5	14.9	14.3	13.1	10.1	5.9
8	********	17.2	17.1	16.9	16.4	16.0	15.5	15.0	14.5	14.0	13.4	12.2	9.5	5.5
9	********	16.2	16.2	15.9	15.5	15.1	14.6	14.1	13.7	13.2	12.6	11.5	8.9	5.2
10	********	15.4	15.3	15.1	14.7	14.3	13.9	13.4	13.0	12.5	12.0	11.0	8.5	4.9
11	********	14.7	14.6	14.4	14.0	13.6	13.2	12.8	12.4	11.9	11.4	10.4	8.1	4.7
12	********	14.1	14.0	13.8	13.4	13.0	12.6	12.2	11.8	11.4	11.0	10.0	7.7	4.5
13	********	13.5	13.5	13.2	12.9	12.5	12.2	11.8	11.4	11.0	10.5	9.6	7.4	4.3
14	********	13.0	13.0	12.8	12.4	12.1	11.7	11.3	11.0	10.6	10.1	9.3	7.2	4.1
15	********	12.6	12.5	12.3	12.0	11.7	11.3	11.0	10.6	10.2	9.8	8.9	6.9	4.0
16	**********		12.1	11.9	11.6	11.3	11.0	10.6	10.2	9.9	9.5	8.7	6.7	3.9
17	**********		11.8	11.6	11.3	11.0	10.6	10.3	9.9	9.6	9.2	8.4	6.5	3.8
18	**********		11.4	11.3	11.0	10.6	10.3	10.0	9.7	9.3	8.9	8.2	6.3	3.7
19	**********		11.1	11.0	10.7	10.4	10.1	9.7	9.4	9.1	8.7	7.9	6.2	3.6
20	**********		10.8	10.7	10.4	10.1	9.8	9.5	9.2	8.8	8.5	7.7	6.0	3.5
21	**********		10.6	10.4	10.1	9.9	9.6	9.3	8.9	8.6	8.3	7.6	5.9	3.4
22	**********		10.3	10.2	9.9	9.6	9.3	9.0	8.7	8.4	8.1	7.4	5.7	3.3
23	**********		10.1	10.0	9.7	9.4	9.1	8.8	8.5	8.2	7.9	7.2	5.6	3.2
24	**********		9.9	9.7	9.5	9.2	8.9	8.7	8.4	8.1	7.7	7.1	5.5	3.2
25	**********		9.7	9.6	9.3	9.0	8.8	8.5	8.2	7.9	7.6	6.9	5.4	3.1
30	**********		8.9	8.7	8.5	8.2	8.0	7.7	7.5	7.2	6.9	6.3	4.9	2.8
35	**********			8.1	7.9	7.6	7.4	7.2	6.9	6.7	6.4	5.9	4.5	2.6
40	**********			7.6	7.3	7.1	6.9	6.7	6.5	6.2	6.0	5.5	4.2	2.4
45	**********			7.1	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.2	4.0	2.3
50	**********			6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.4	4.9	3.8	2.2
55	**********			6.4	6.3	6.1	5.9	5.7	5.5	5.3	5.1	4.7	3.6	2.1
60	**********			6.2	6.0	5.8	5.7	5.5	5.3	5.1	4.9	4.5	3.5	2.0
65	**********			5.9	5.8	5.6	5.4	5.3	5.1	4.9	4.7	4.3	3.3	1.9
70	**********			5.7	5.6	5.4	5.2	5.1	4.9	4.7	4.5	4.1	3.2	1.9
75	**********			5.5	5.4	5.2	5.1	4.9	4.7	4.6	4.4	4.0	3.1	1.8
80	**********				5.2	5.1	4.9	4.7	4.6	4.4	4.2	3.9	3.0	1.7
85	**********				5.0	4.9	4.8	4.6	4.4	4.3	4.1	3.8	2.9	1.7
90	**********				4.9	4.8	4.6	4.5	4.3	4.2	4.0	3.7	2.8	1.6
95	**********				4.8	4.6	4.5	4.4	4.2	4.1	3.9	3.6	2.8	1.6
100	**********				4.6	4.5	4.4	4.2	4.1	3.9	3.8	3.5	2.7	1.5
125	**********				4.2	4.0	3.9	3.8	3.7	3.5	3.4	3.1	2.4	1.4
150	**********				3.8	3.7	3.6	3.5	3.3	3.2	3.1	2.8	2.2	1.3
200	**********					3.2	3.1	3.0	2.9	2.8	2.7	2.4	1.9	1.1
250	**********						2.8	2.7	2.6	2.5	2.4	2.2	1.7	1.0
300	**********						2.5	2.4	2.4	2.3	2.2	2.0	1.5	0.9
350	**********							2.3	2.2	2.1	2.0	1.9	1.4	0.8
400	**********								2.0	2.0	1.9	1.7	1.3	0.8
450	**********								1.9	1.9	1.8	1.6	1.3	0.7
500	**********									1.8	1.7	1.5	1.2	0.7
750	**********											1.3	1.0	0.6
1000	**********												0.8	0.5

NOTES:

(1) SAMPLING VARIABILITIES (COEFFICIENTS OF VARIATION) ARE IN PERCENTS.
(2) TO DETERMINE SAMPLING VARIABILITIES FOR ESTIMATES OF TOTALS, LOCATE THE RON CLOSEST TO THE ESTIMATED TOTAL. THE LEFT-MOST COLUMN GIVES THE SAMPLING VARIABILITY.
(3) TO DETERMINE SAMPLING VARIABILITIES FOR ESTIMATES OF PERCENTAGES, USE THE RON CLOSEST TO THE NUMERATOR OF THE PERCENTAGE AND THE COLUMN CLOSEST TO THE PERCENTAGE.
(4) SAMPLING VARIABILITIES IN THIS TABLE ARE CRUDE INDICATORS AND IN GENERAL ARE HIGHER THAN THOSE THAT WOULD BE OBTAINED USING MORE EXACT TECHNIQUES. UNDER NO CIRCUMSTANCES ARE THEY OFFICIAL.

13. TECHNICAL SPECIFICATIONS

Dataset Name: Spec.APP8610

Volume Serial Number:----NT

Record Length: 113

Blocksize:

Recording Density: 1600 BPI

Label: Standard IBM