



Statistics  
Canada

Statistique  
Canada

**Special  
Surveys  
Program**

**Programme  
des enquêtes  
spéciales**

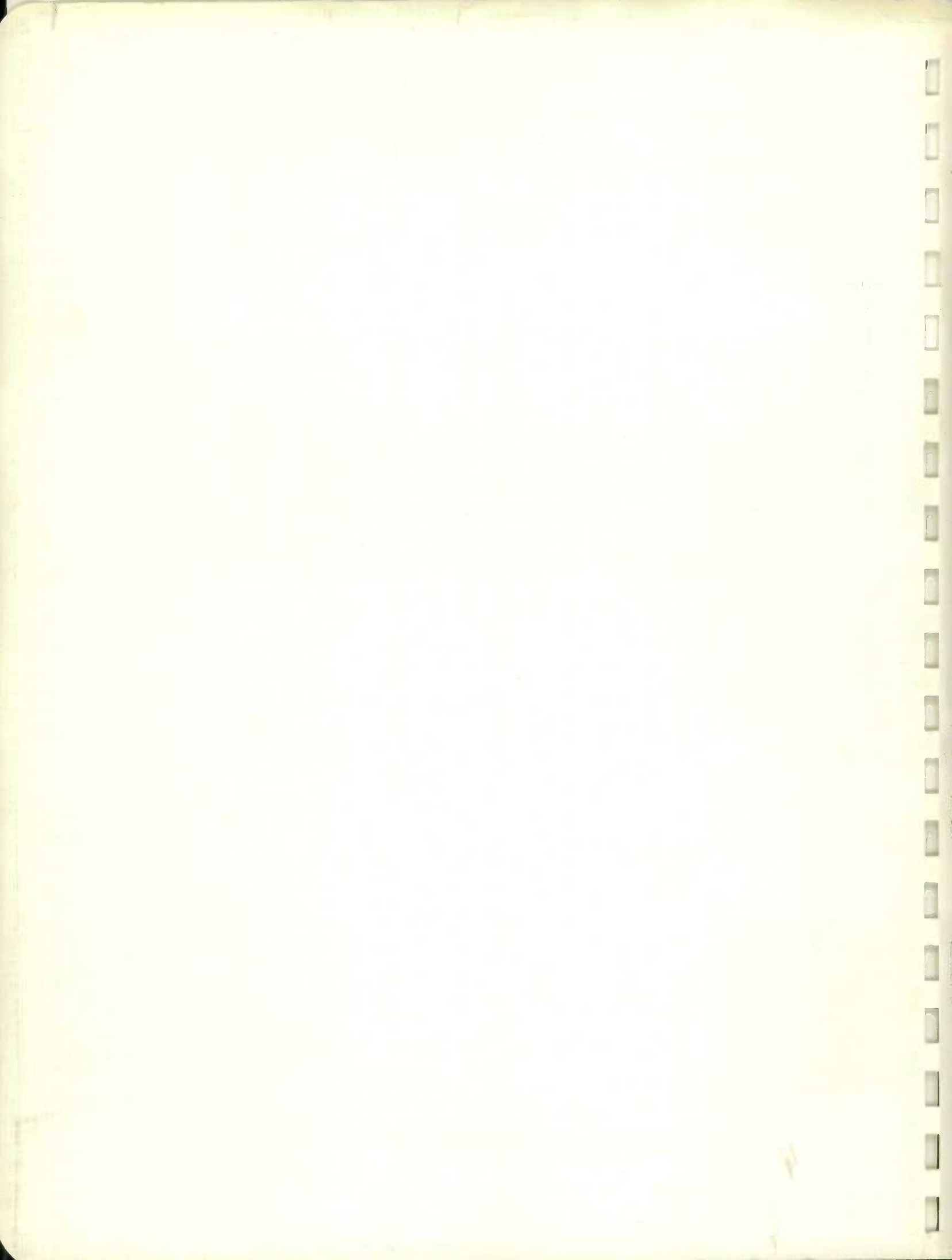


71M0036

1989

04

**Canada**

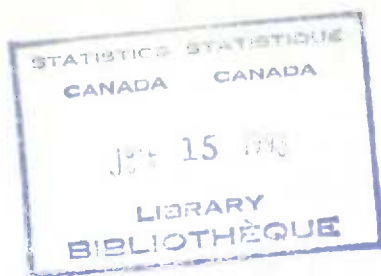


# 54186

SURVEY OF ALBERTA APPRENTICES AND JOURNEYMEN

8810

Microdata Documentation



Special Surveys Group  
STATISTICS CANADA

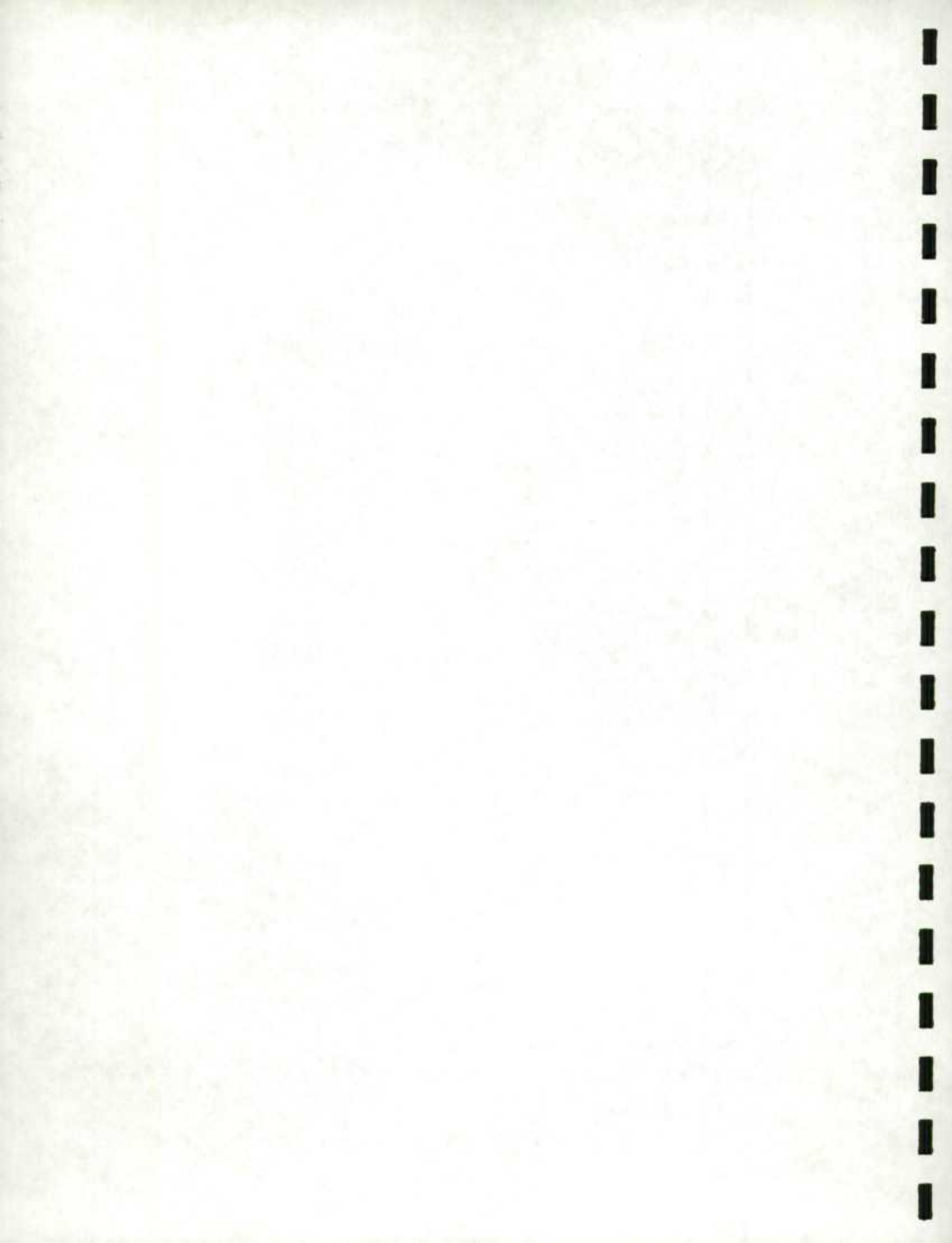
January 1989

REC'D  
FEB 11 1964  
U.S. DEPT. OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D.C.

SURVEY OF ALBERTA APPRENTICES AND JOURNEYMEN - 8810

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

1. INTRODUCTION
2. SURVEY OBJECTIVES
3. POPULATION
4. SURVEY DESIGN
  - 4.1 LFS Survey Design
    - 4.1.1 Self-representing Units
    - 4.1.2 Non-self-representing Units
    - 4.1.3 Special Areas
  - 4.2 Sample Rotation
  - 4.3 The Survey of Alberta Apprentices and Journeymen
5. COLLECTION
6. PROCESSING
7. DATA OUTPUT
8. ESTIMATION
  - 8.1 LFS Weighting
  - 8.2 Weighting for the Survey of Alberta Apprentices and Journeymen
  - 8.3 Types of Estimates
  - 8.4 Weighting Policy
9. RELEASE POLICY AND DATA RELIABILITY
10. SURVEY DOCUMENTS
11. RECORD DESCRIPTION
12. SAMPLING VARIABILITY TABLES
13. TECHNICAL SPECIFICATIONS



1.

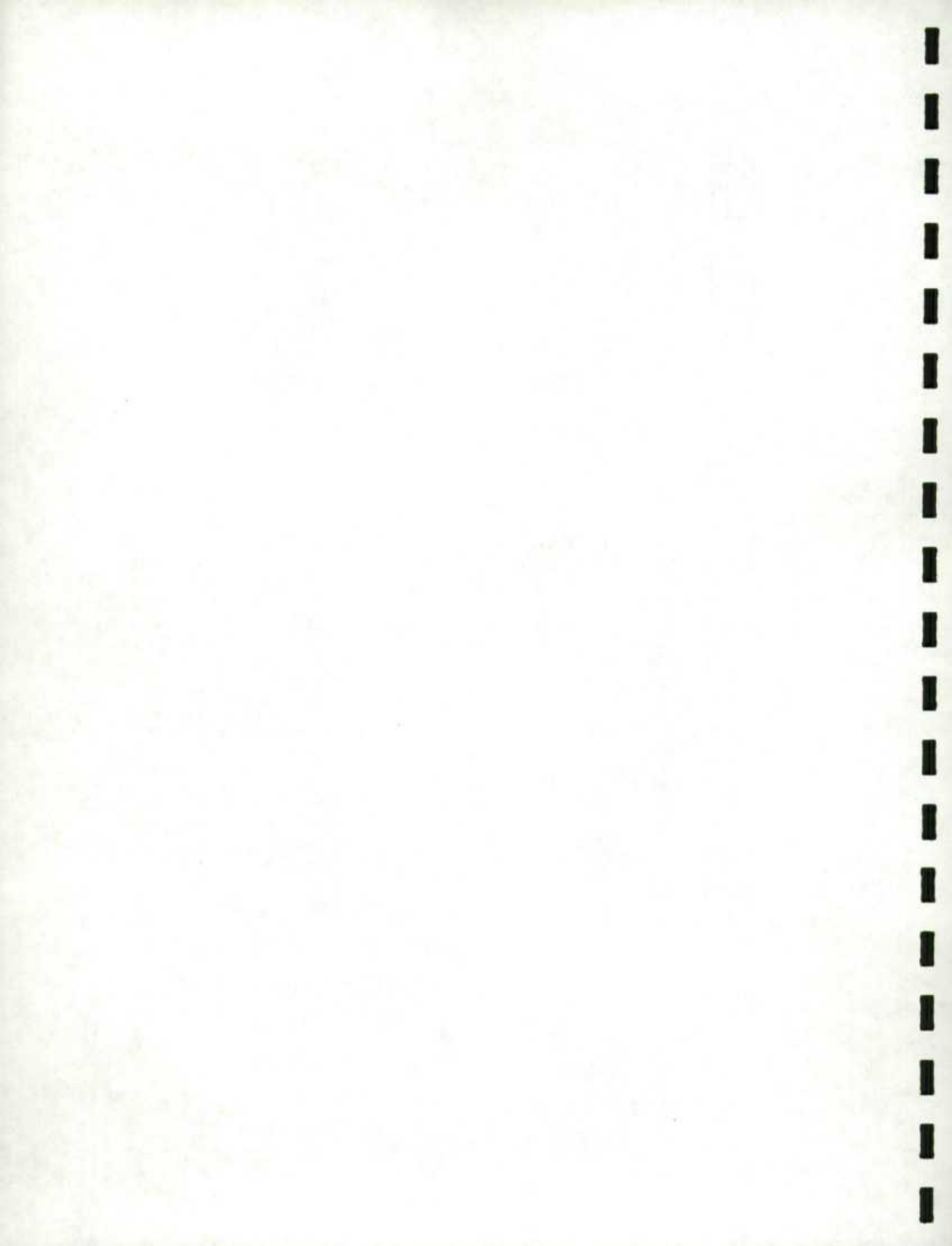
## INTRODUCTION

This package should enable analysts to access and manipulate the microdata file from the 1988 Survey of Alberta Apprentices and Journeymen (APP). Any questions about the data set or its use should be directed to:

T. Scott Murray  
Special Surveys Group  
Statistics Canada  
505 Jean Talon Building  
Ottawa, Ontario  
K1A 0T6  
(613) 951-9476

Both Statistics Canada and Alberta Manpower provided financial support for the current study. The contact in Alberta Manpower is:

Lawrence Bortoluzzi  
Research Manager  
Demography and Immigration Planning Secretariat  
Alberta Manpower  
Park Square  
10001 Bellamy Hill  
Edmonton, Alberta  
T5J 3C1  
(403) 427-8501





2.

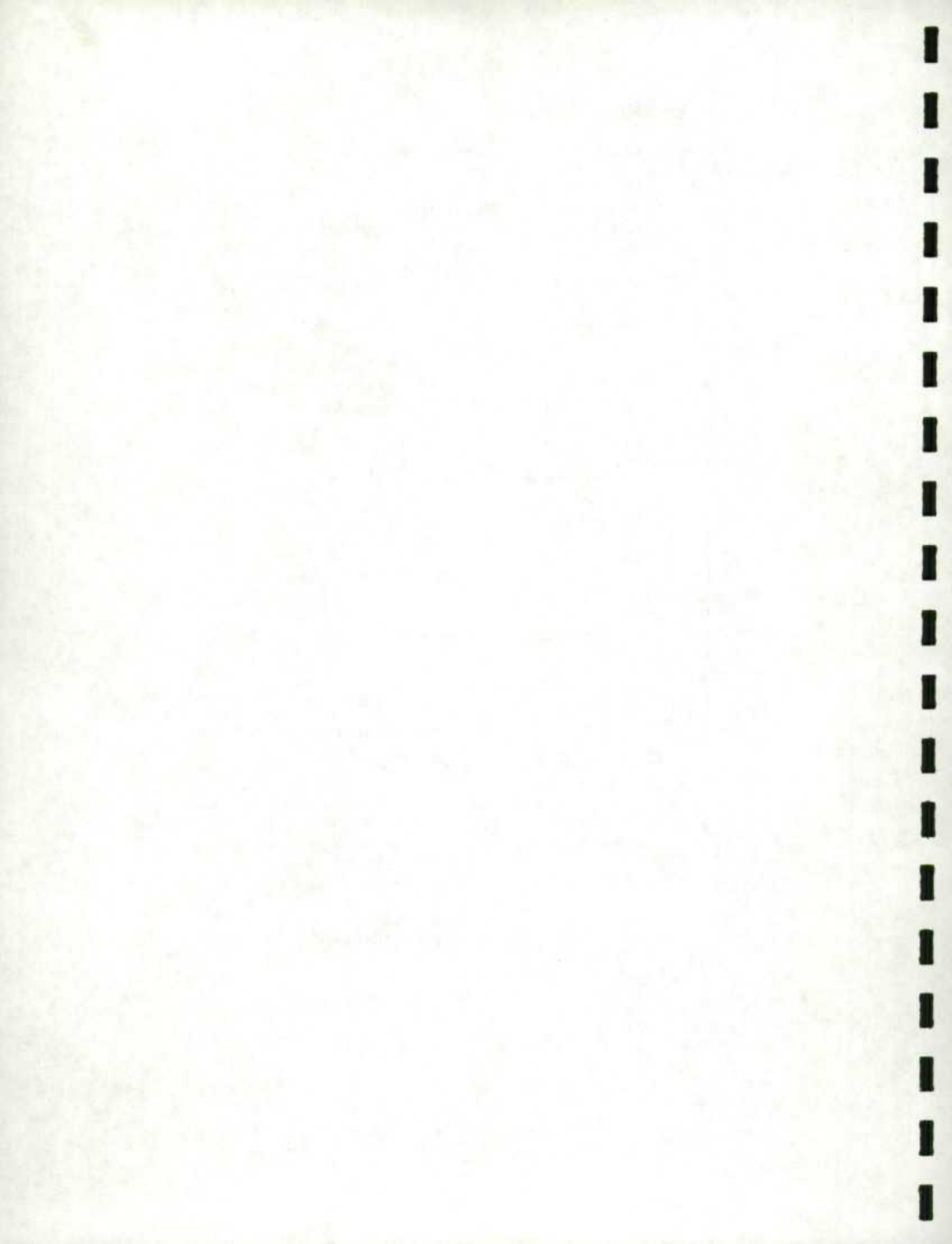
## SURVEY OBJECTIVES

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.

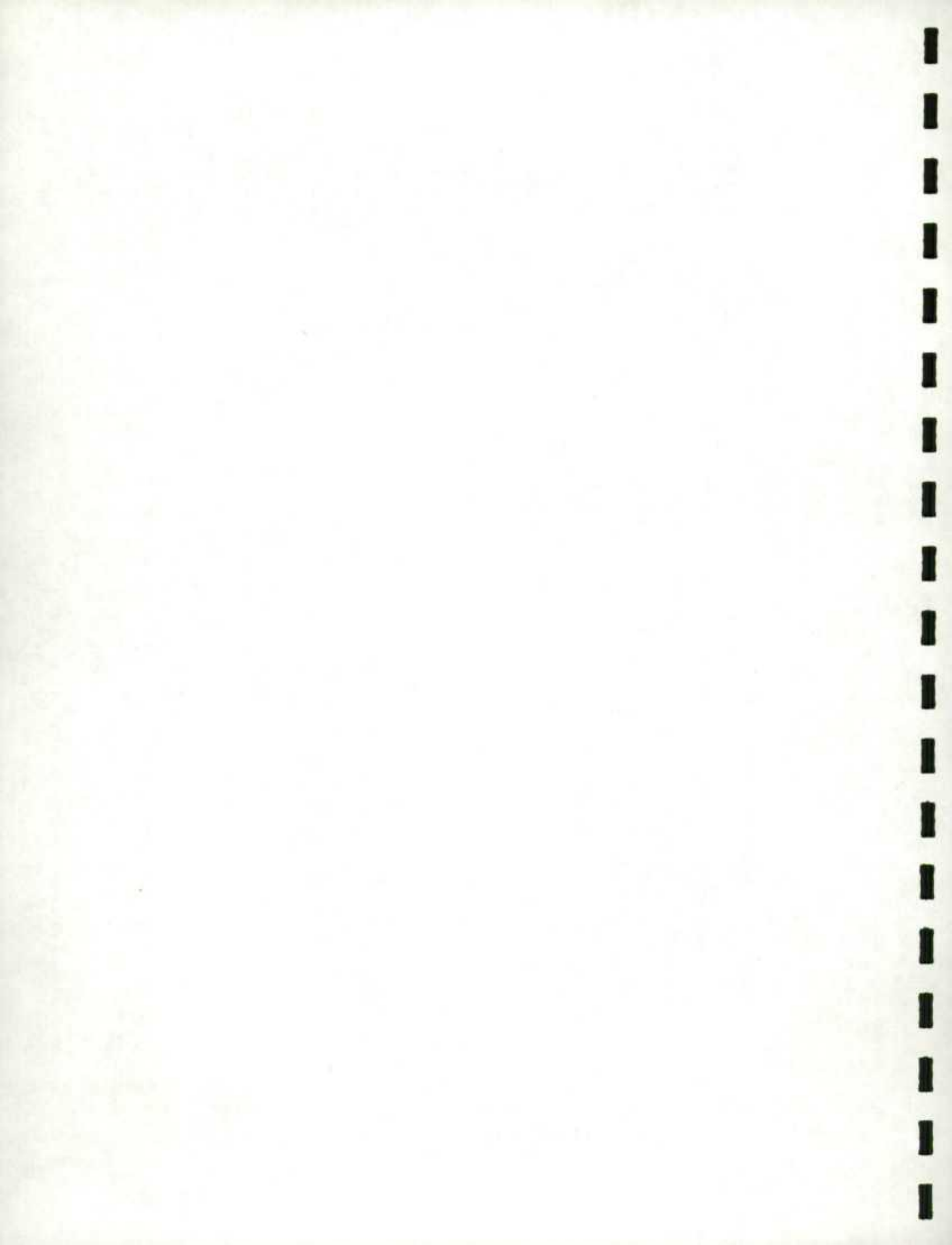
To become an apprentice, an individual must be at least 16 years old and have a minimum level of education (usually Grade 9). The individual must also be employed with an employer who is a journeyman or employs a journeyman in the required trade. Once this condition is met, the individual can become 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 Seal 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 18,000 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.

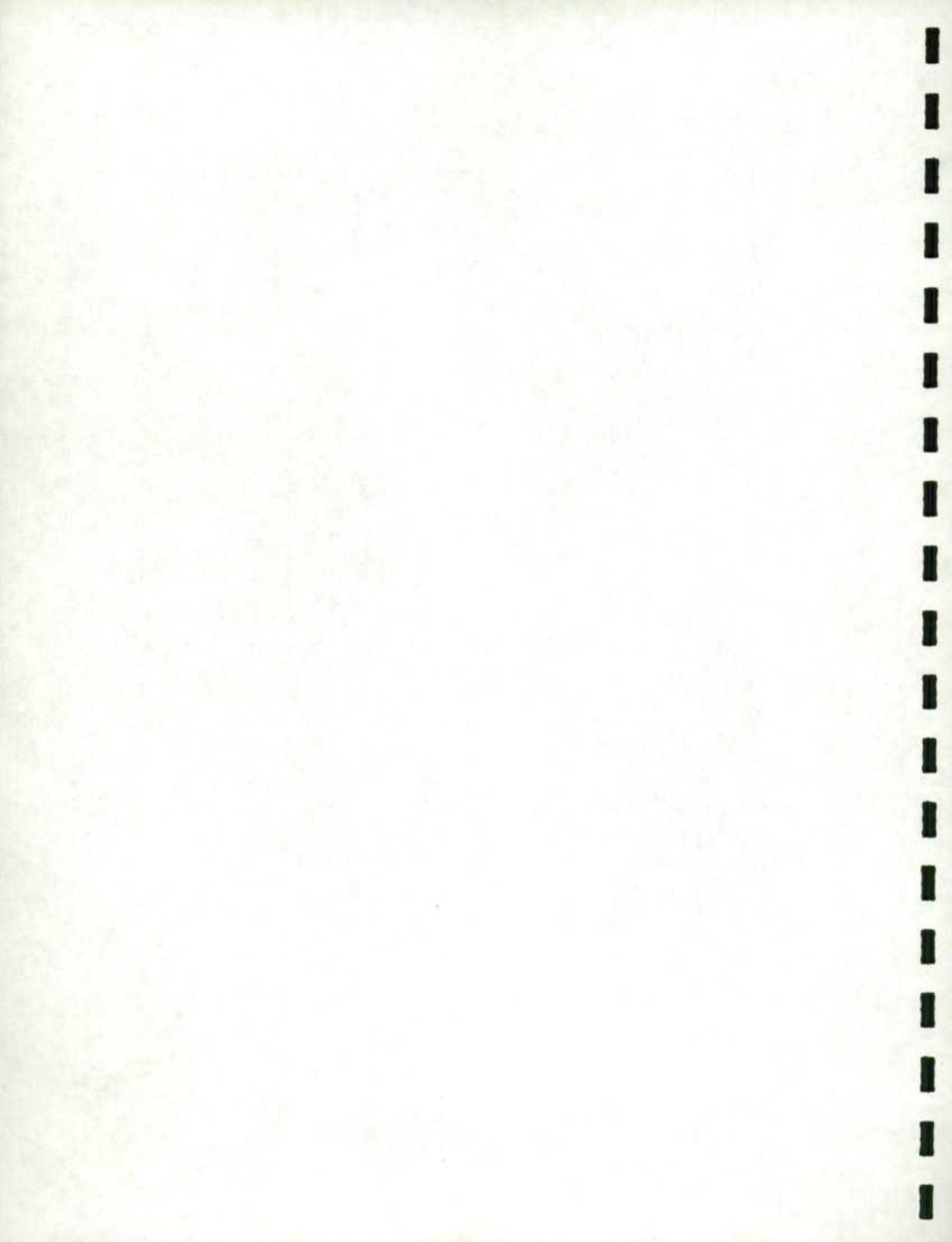


3.

### 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, 1988, i.e., the week of October 17-22;
- (2) the 12 months preceding the LFS reference week in October, 1988.



#### 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 1988. 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.

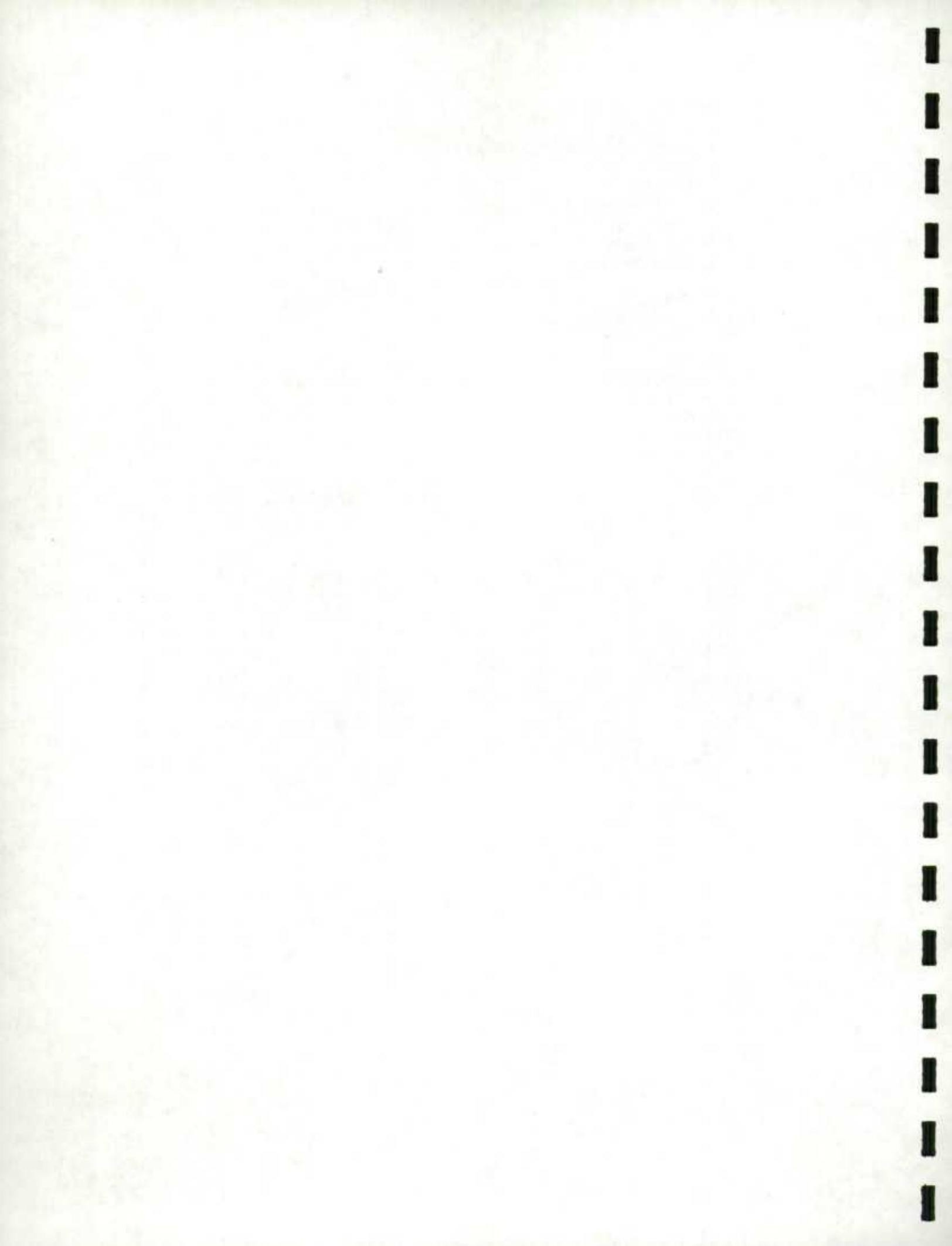
##### 4.1 LFS Survey Design<sup>1</sup>.

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.

---

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)

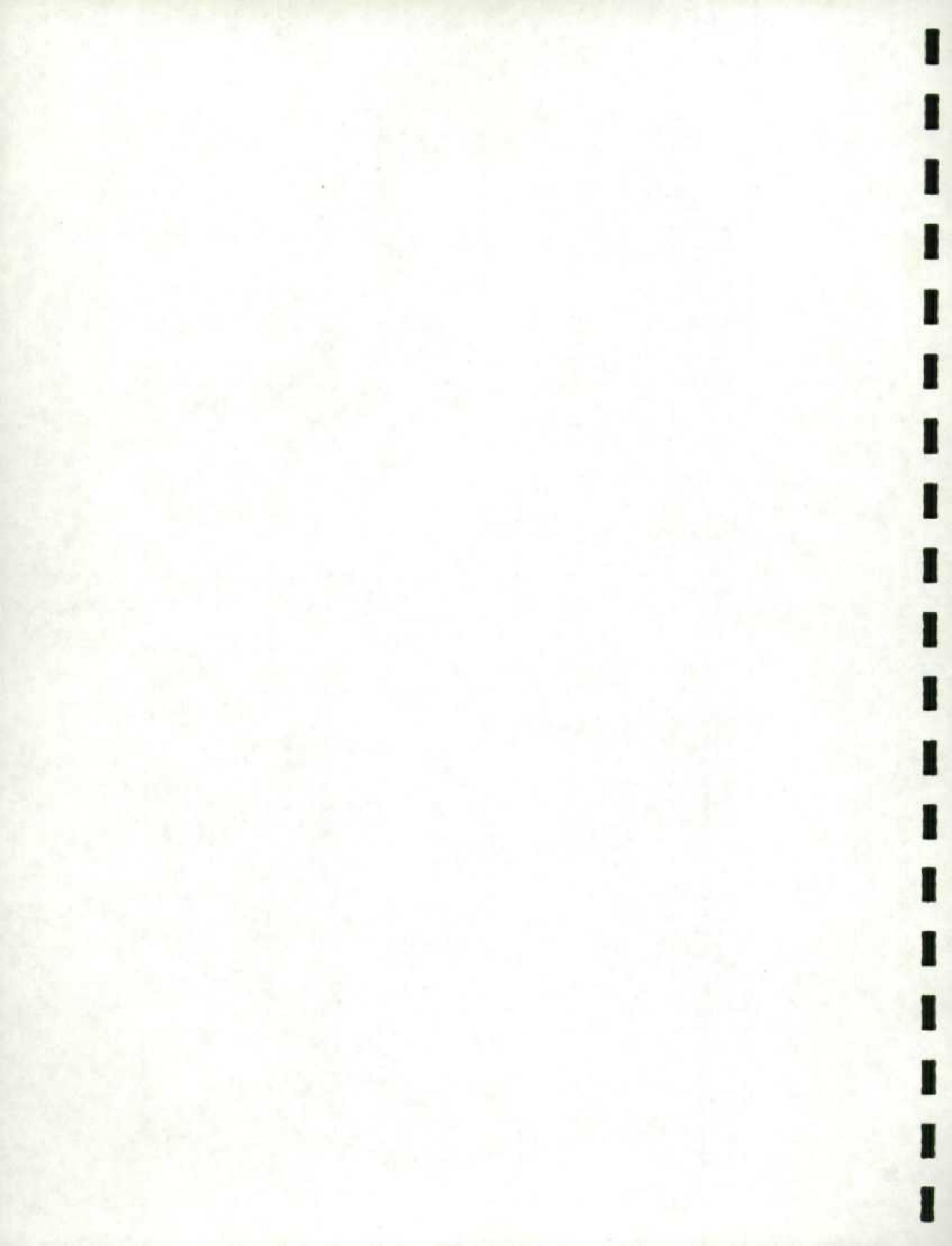
The self-representing part of the sample comprises those cities whose population exceeds a certain predetermined value, this value varying from region to region.<sup>2</sup> Some cities with population less than this lower limit are also classified as SRUs, in cases where they possess unique labour force 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 random 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

---

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.

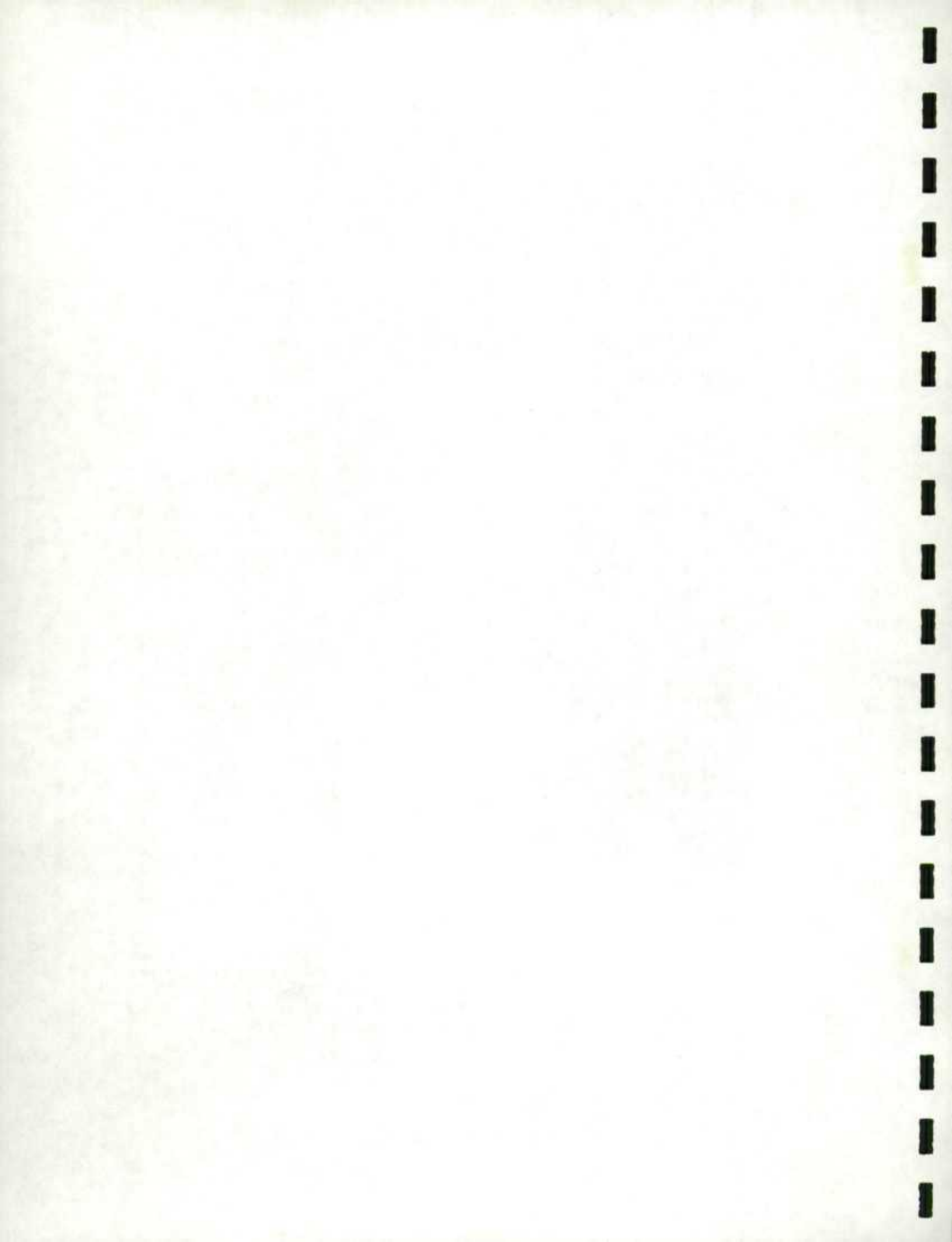
In the 17 largest self-representing units, a special selection is made of large apartment buildings (30 or more units and 5 or more stories) to improve the representativeness of the sample and to reduce the variance of the sample estimates. The sampling procedure for the apartment sample is similar to 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 boundaries 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), secondaries (EAs) and dwellings are selected as described for urban areas.

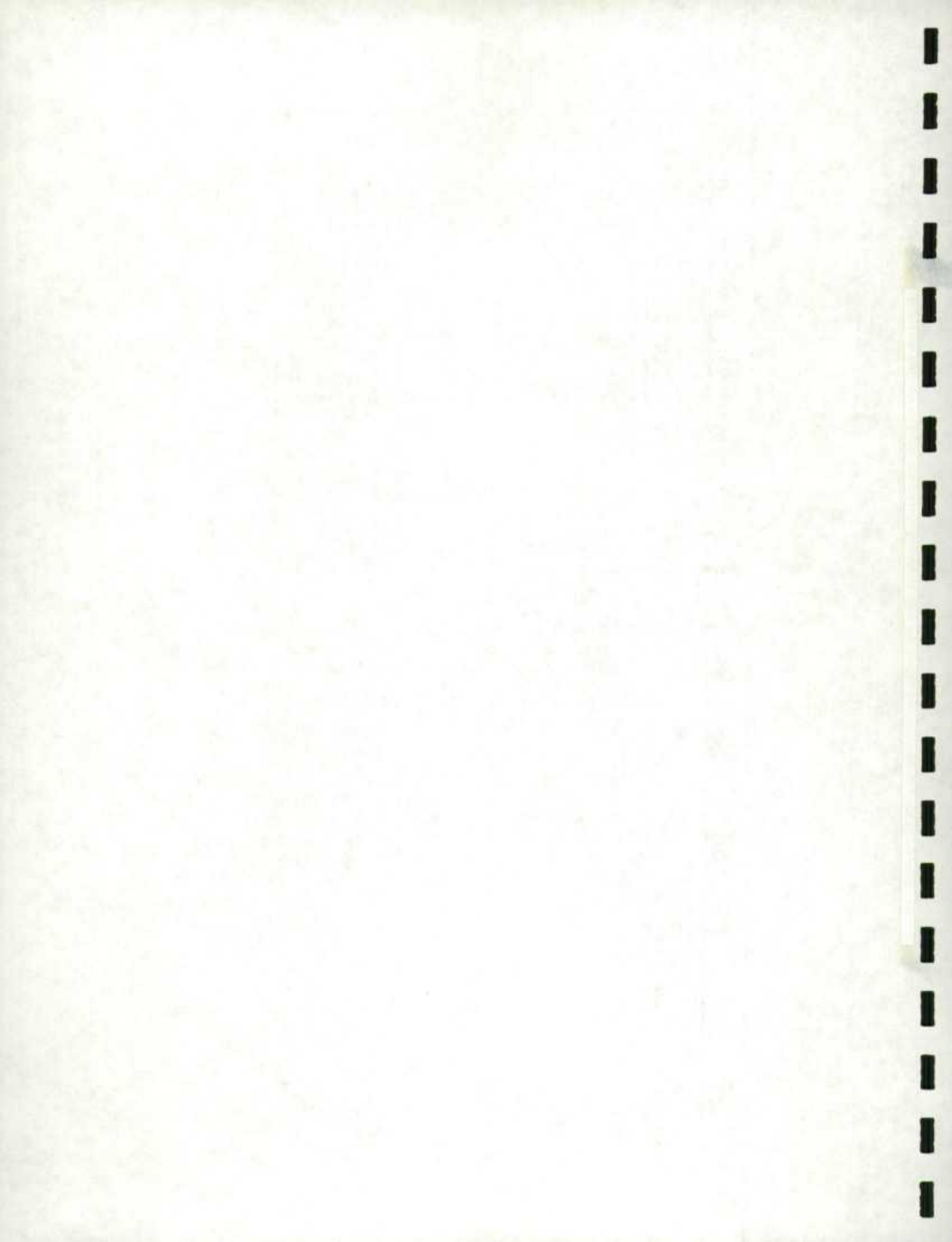
#### 4.1.3 Special Areas

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

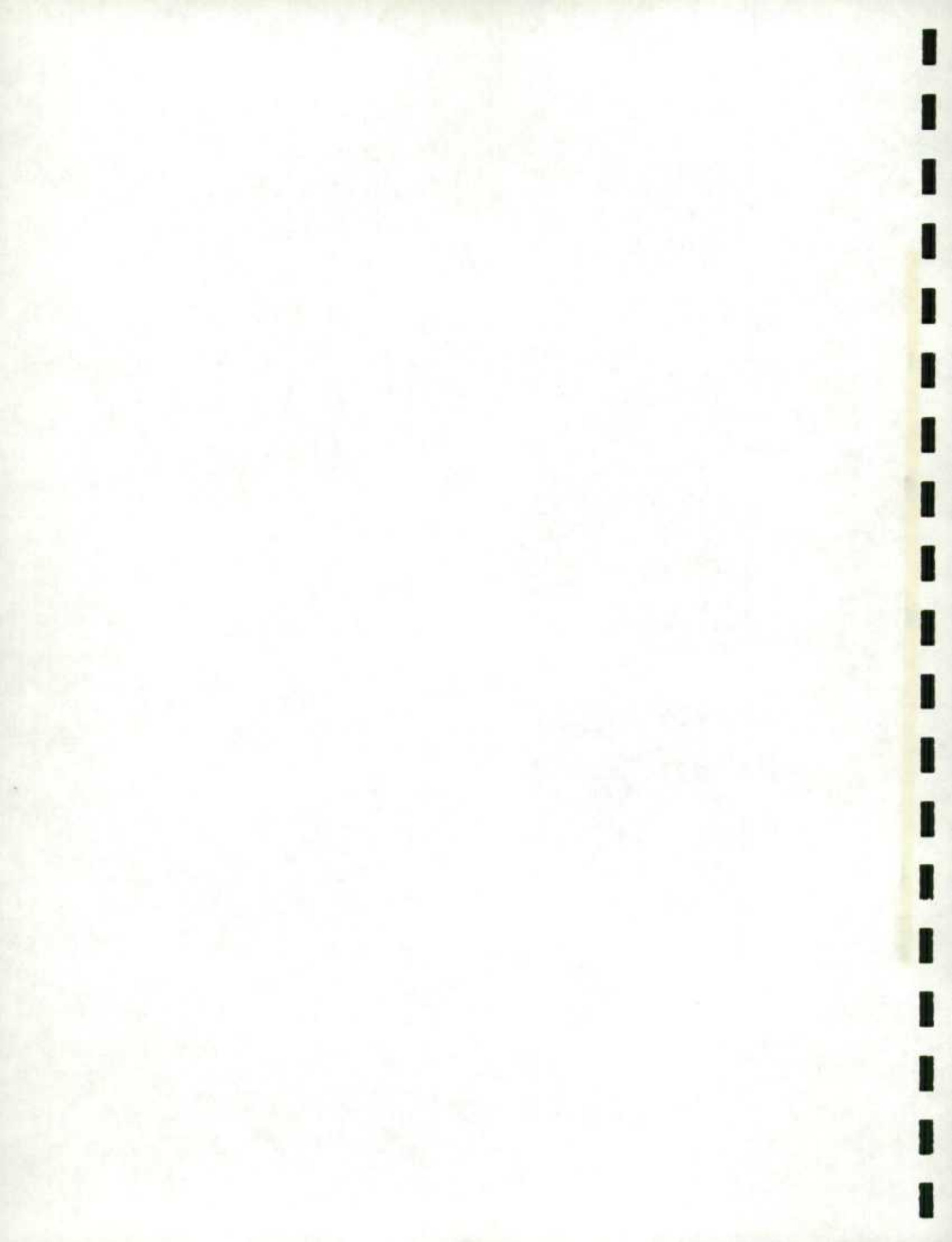


sample is rotated out in this manner each month and a new sixth is brought in to replace it. This rotation, as it is called, is done primarily to minimize the non-response that might occur if respondents were asked to remain in the survey for a longer period of time. The rotation procedure is designed 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 1988 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 17-22, 1988. Most of the labour force variables relate to the reference week of October 9-15, 1988. Supplementary questions were completed for each person 16-65 years of age in the household.

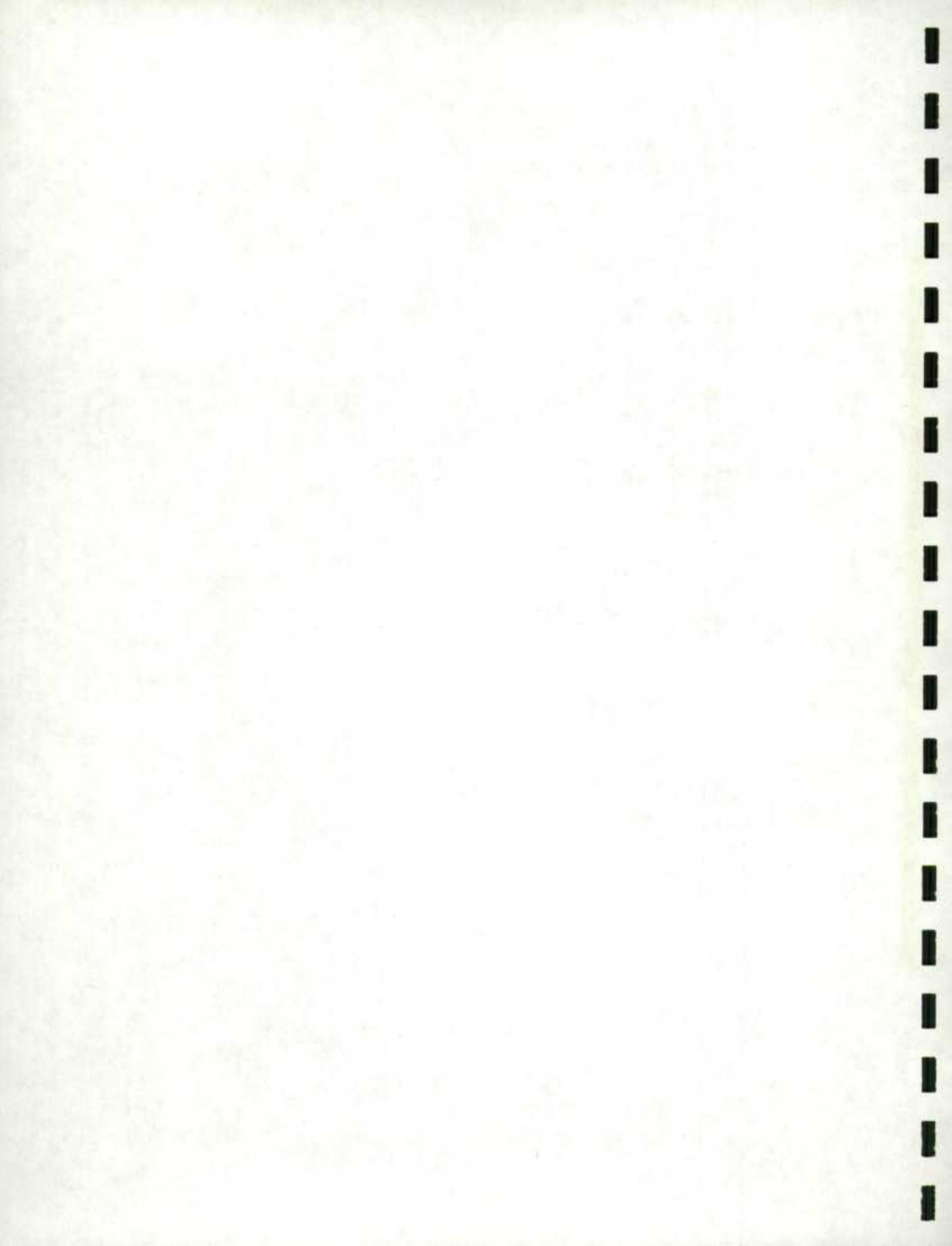
6. **PROCESSING**

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.

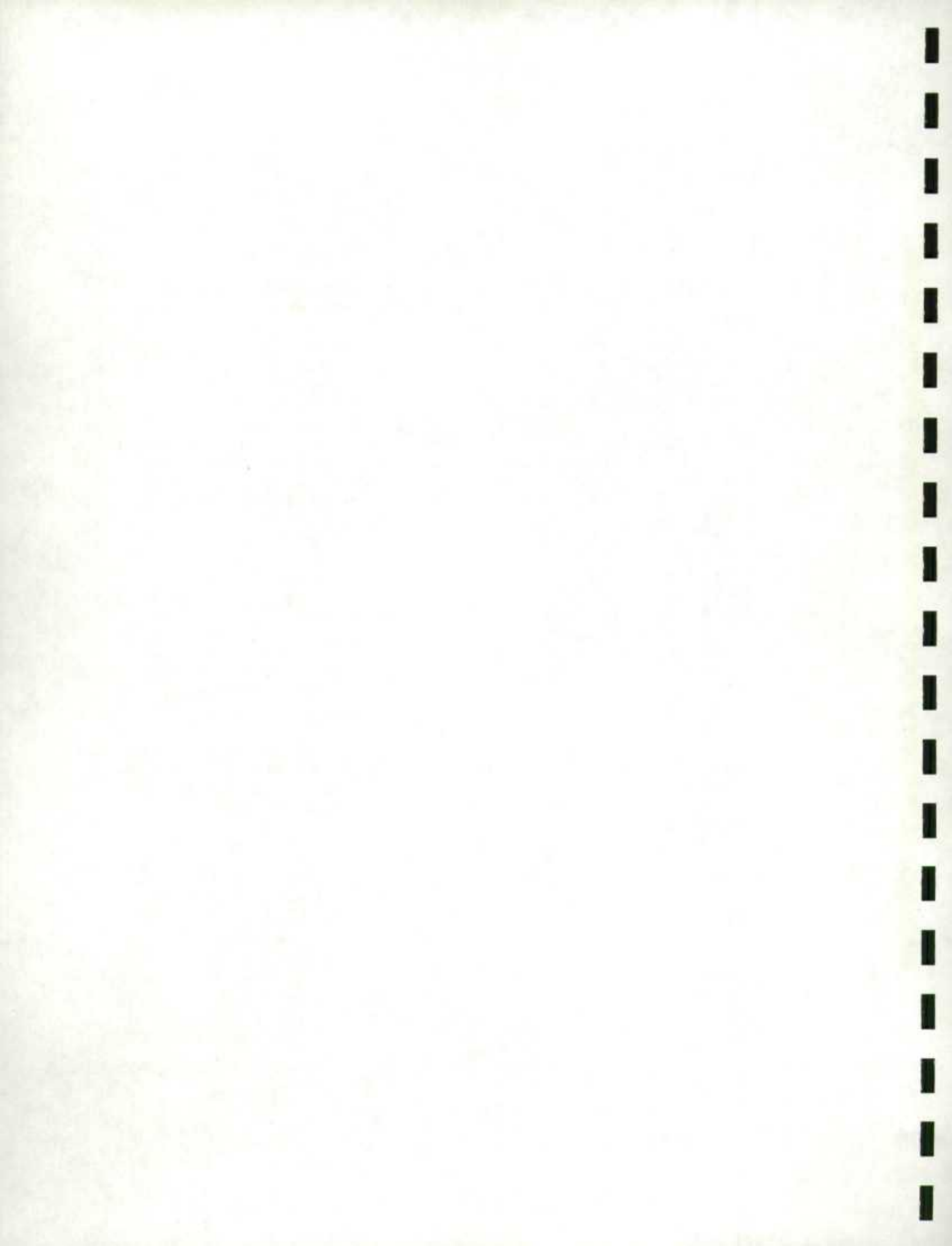
For the LFS, the file created for tabulation purposes contains one record per person in the sample. Each record contains all labour force and demographic characteristics concerning the selected individual. Instead of physically duplicating the sample record according to the number of persons that record 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.

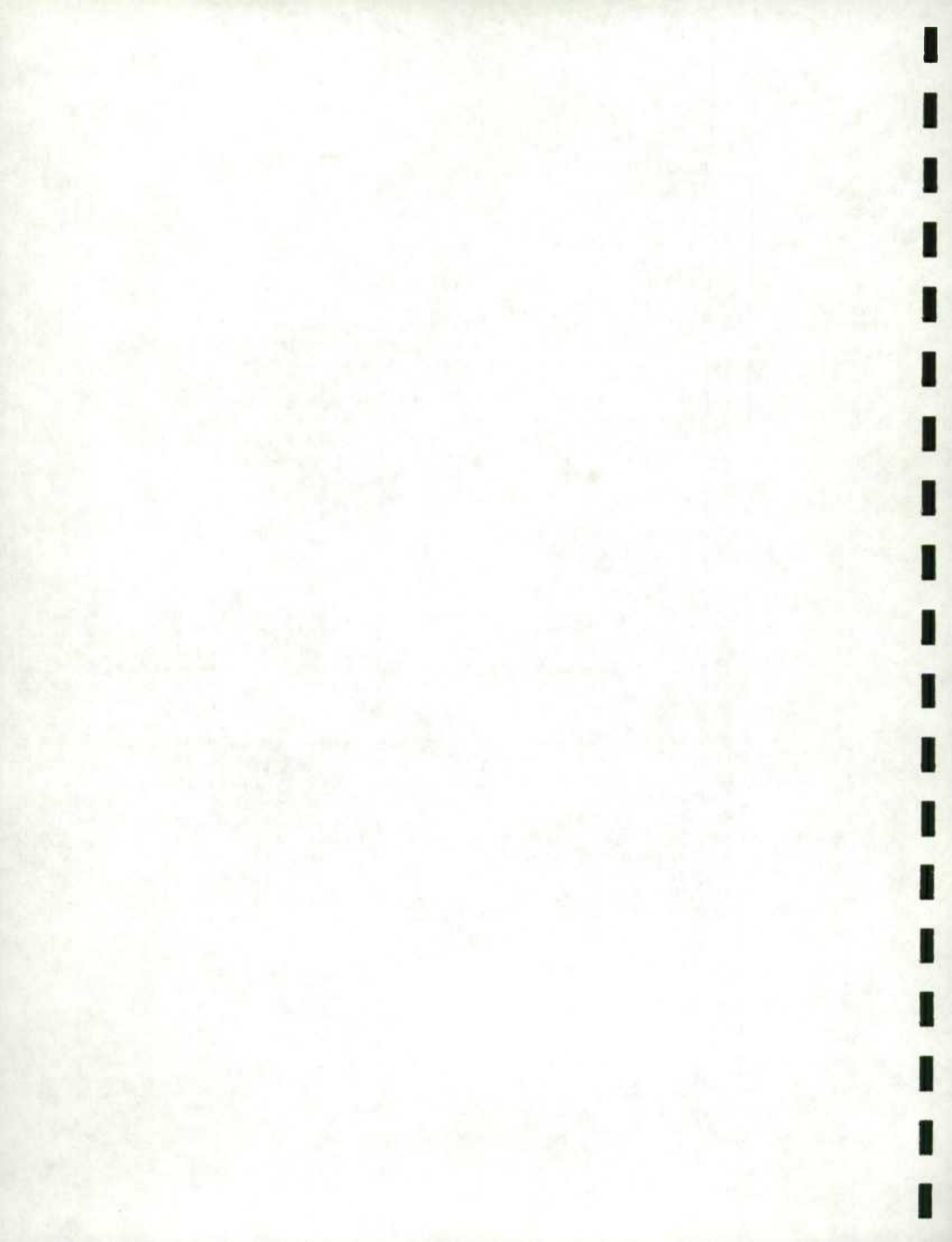
### 8.1.3 Non-Response

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

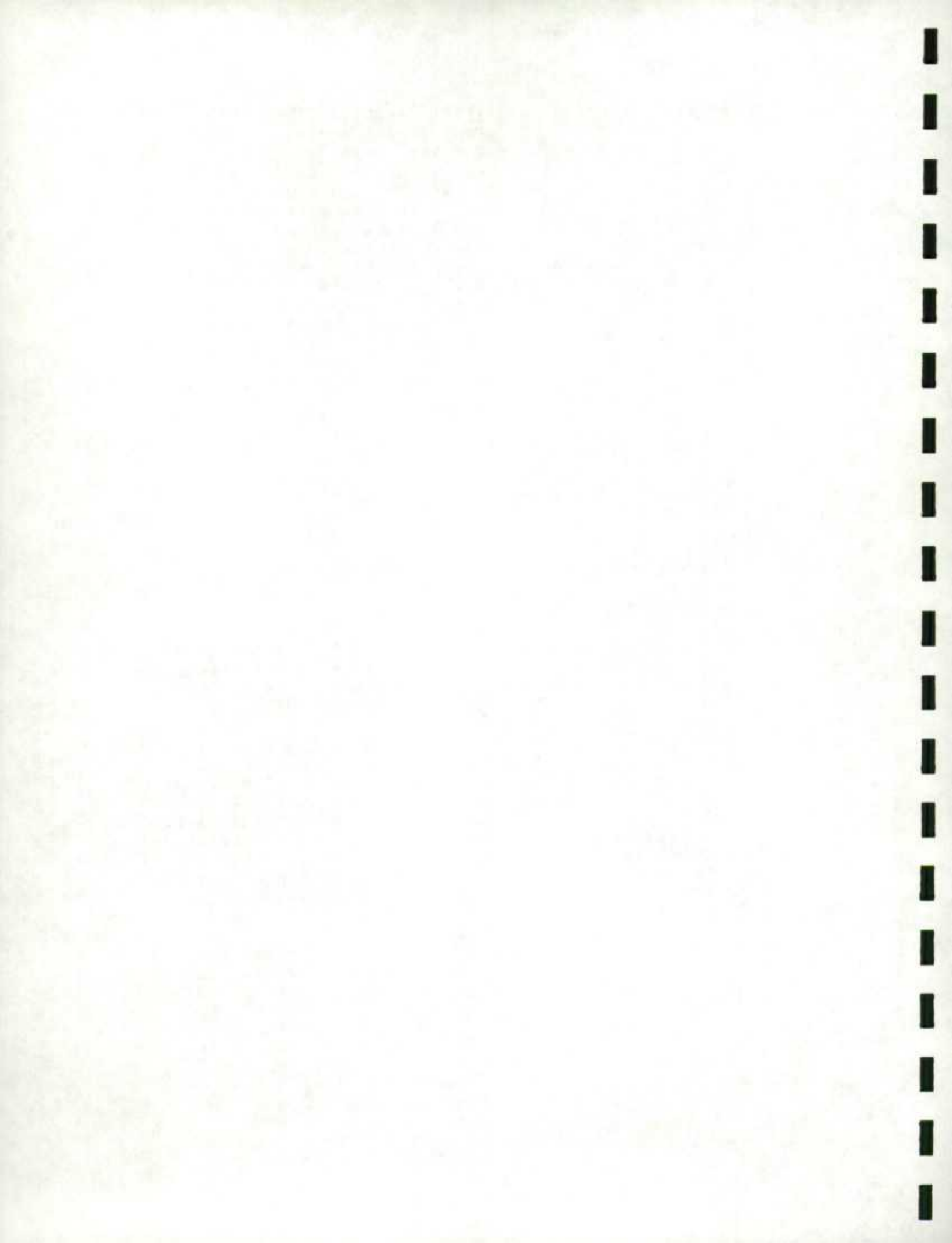
In NSRUs without sufficient rural and urban population for explicit urban and rural strata to be formed, each



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 metropolitan 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

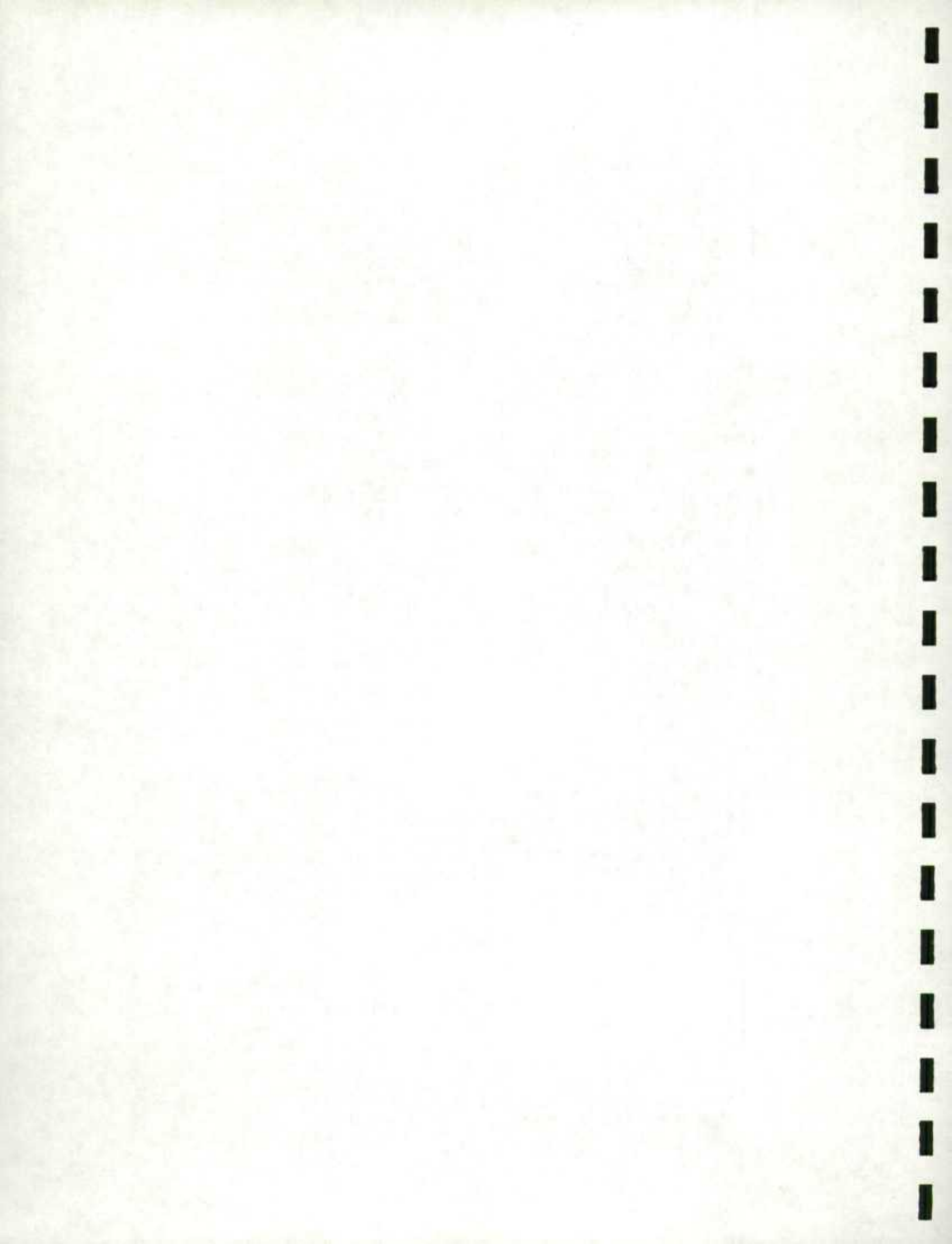
### Types of Estimates

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

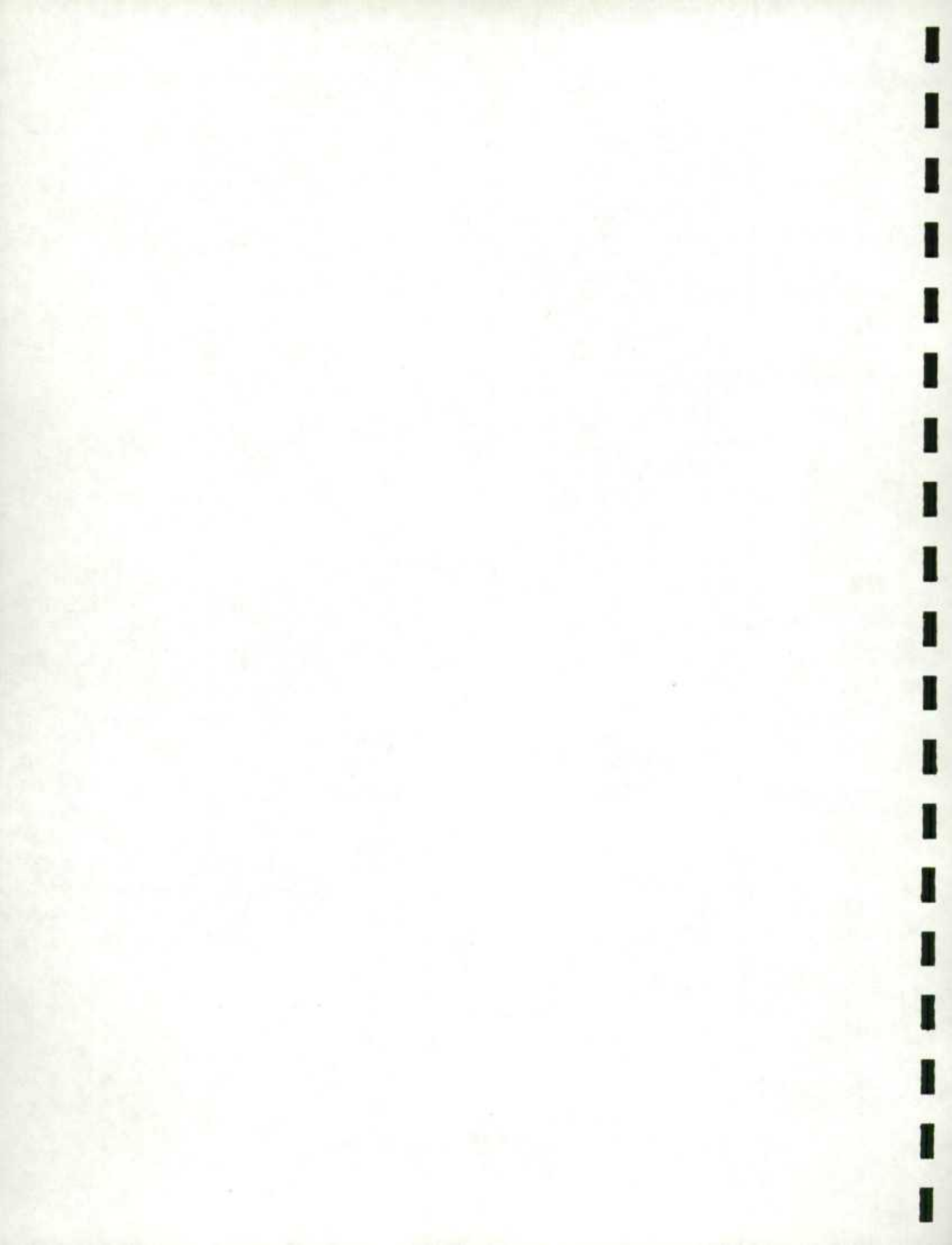
A few variables on the Apprentices and Journeymen Survey microdata file are quantitative in nature (e.g., number of weeks looking for work by apprentices). From these variables, it is possible to obtain such estimates as the average number of weeks without work. These estimates are of the following ratio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

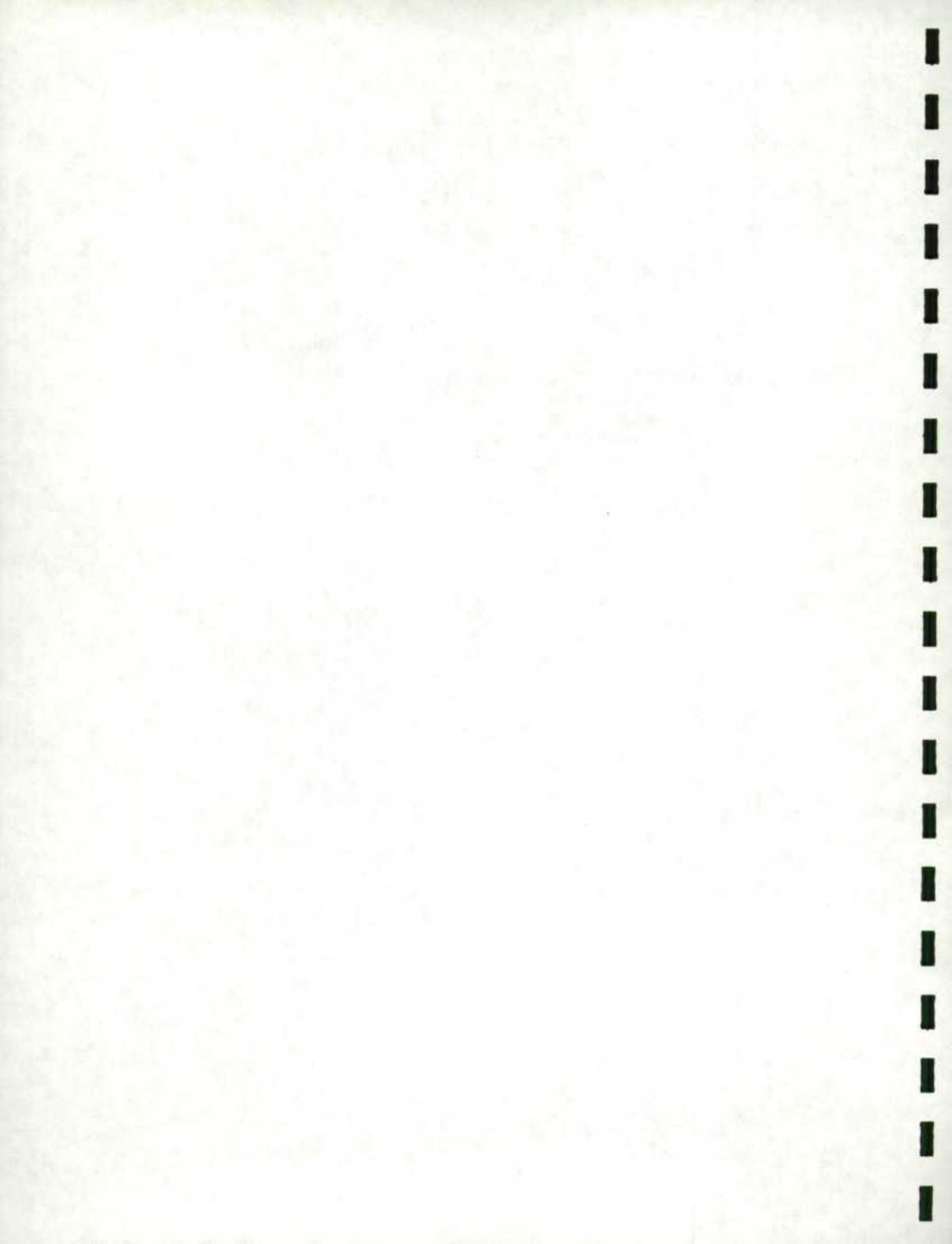
Users are cautioned against releasing unweighted tables or performing any analysis based on unweighted survey results. As was discussed in Sections 8.1 and 8.2, there were several weight adjustments performed on the survey data. Sampling rates as well as non-response rates varied significantly from region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



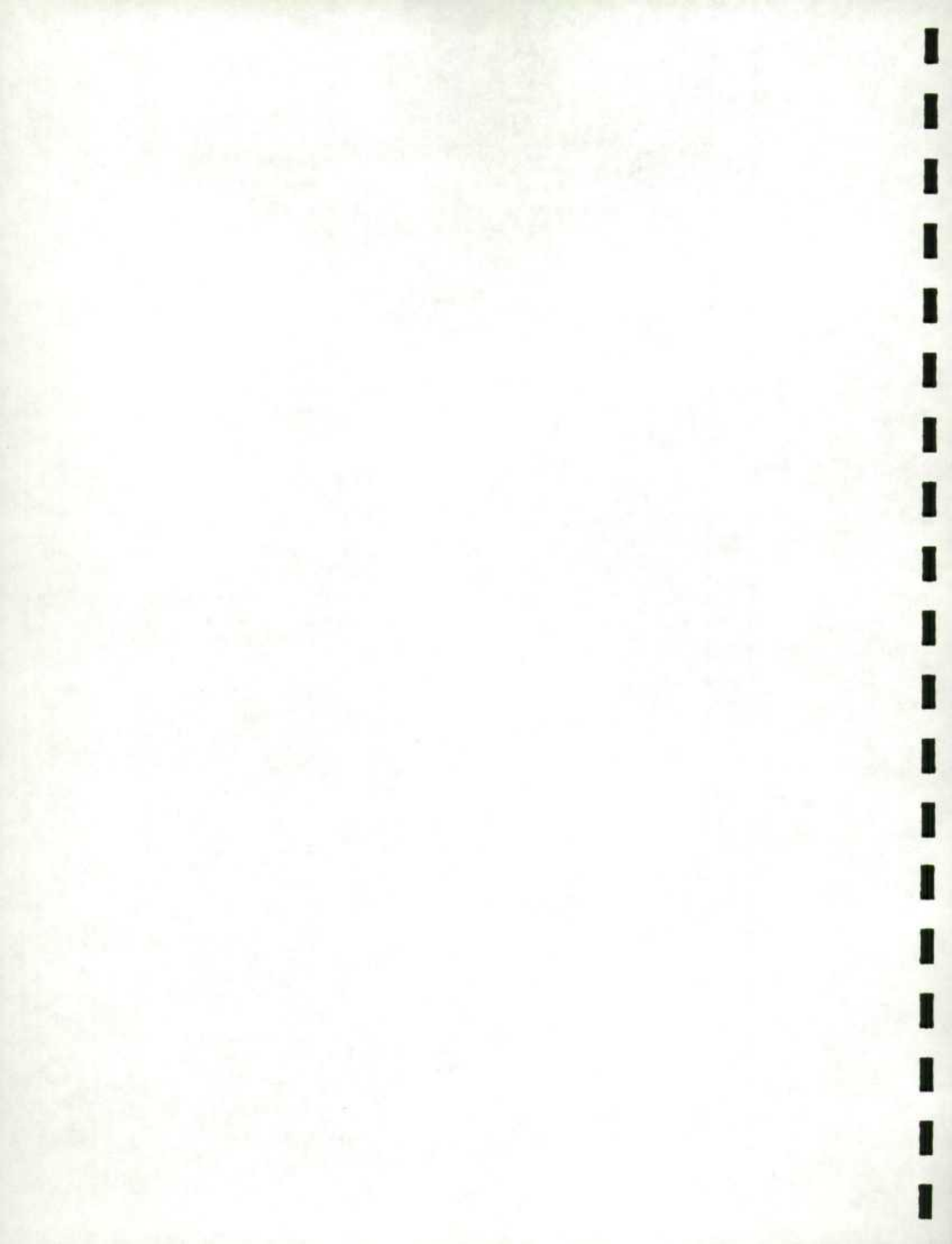
T A B L E   O N E

Interview/Non-Interview Classifications

| Category      | Code | Explanation                                                                                               |
|---------------|------|-----------------------------------------------------------------------------------------------------------|
| Interview     | X    | Completed interview - LFS questionnaire completed for all eligible members of the household.              |
|               | E    | Parital interview - LFS questionnaire completed for some, but not all, eligible members of the household. |
| Non-response  | T    | Household temporarily absent                                                                              |
|               | N    | No one at home                                                                                            |
|               | R    | Refusal                                                                                                   |
|               | K    | No interview due to circumstances within the household (e.g., sickness, death, language problems)         |
|               | A    | No interviewer available                                                                                  |
|               | L    | No interview due to weather conditions                                                                    |
|               | Z    | 'No Shows' - survey forms arrived too late for processing or were lost in the mail.                       |
| Vacant        | V    | Vacant dwellings                                                                                          |
|               | S    | Vacant seasonal dwellings                                                                                 |
|               | C    | Dwelling under construction                                                                               |
|               | B    | Usual place or residence elsewhere, military or embassy personnel                                         |
| Non-existance | D    | Dwelling was demolished, removed, converted into business premises or listed in error                     |



Note: The sampling variability policy should be applied to rounded estimates.





policy should be applied to

## RELIABILITY

ers became familiar with the  
before publishing or otherwise  
derived from the Survey of  
Journeyman microdata file.

mentation provides guidelines

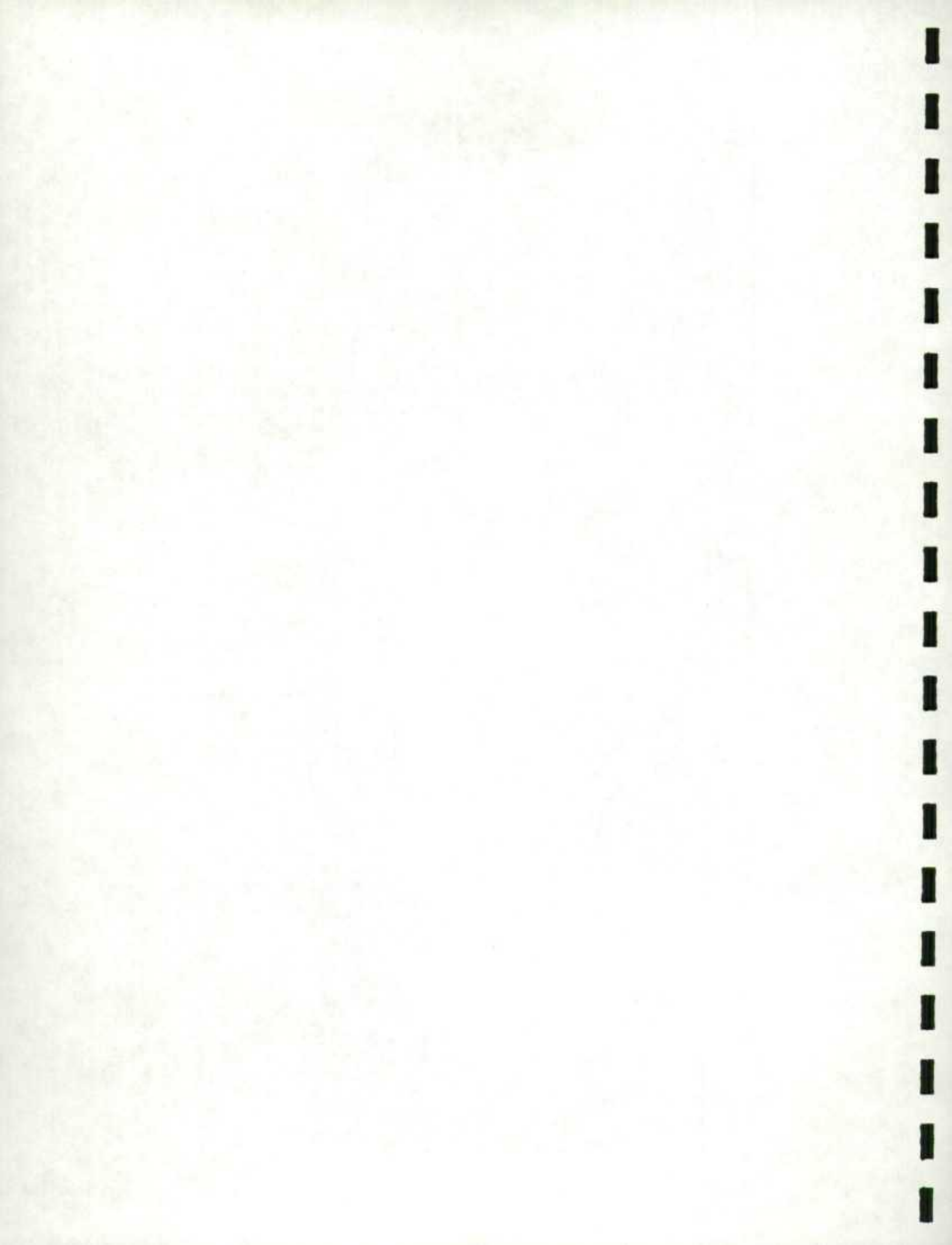
With the aid of these  
microdata should be able to  
nt with those produced by  
conformance with the  
or rounding and release. The  
into two broad sections -  
rounding policy.

### delines

om this survey are based on a  
omewhat different figures might  
complete census had been taken  
aire, interviewers,  
methods, etc. than those  
erence between the estimates  
and the results from a  
er similar conditions is called  
e estimate.

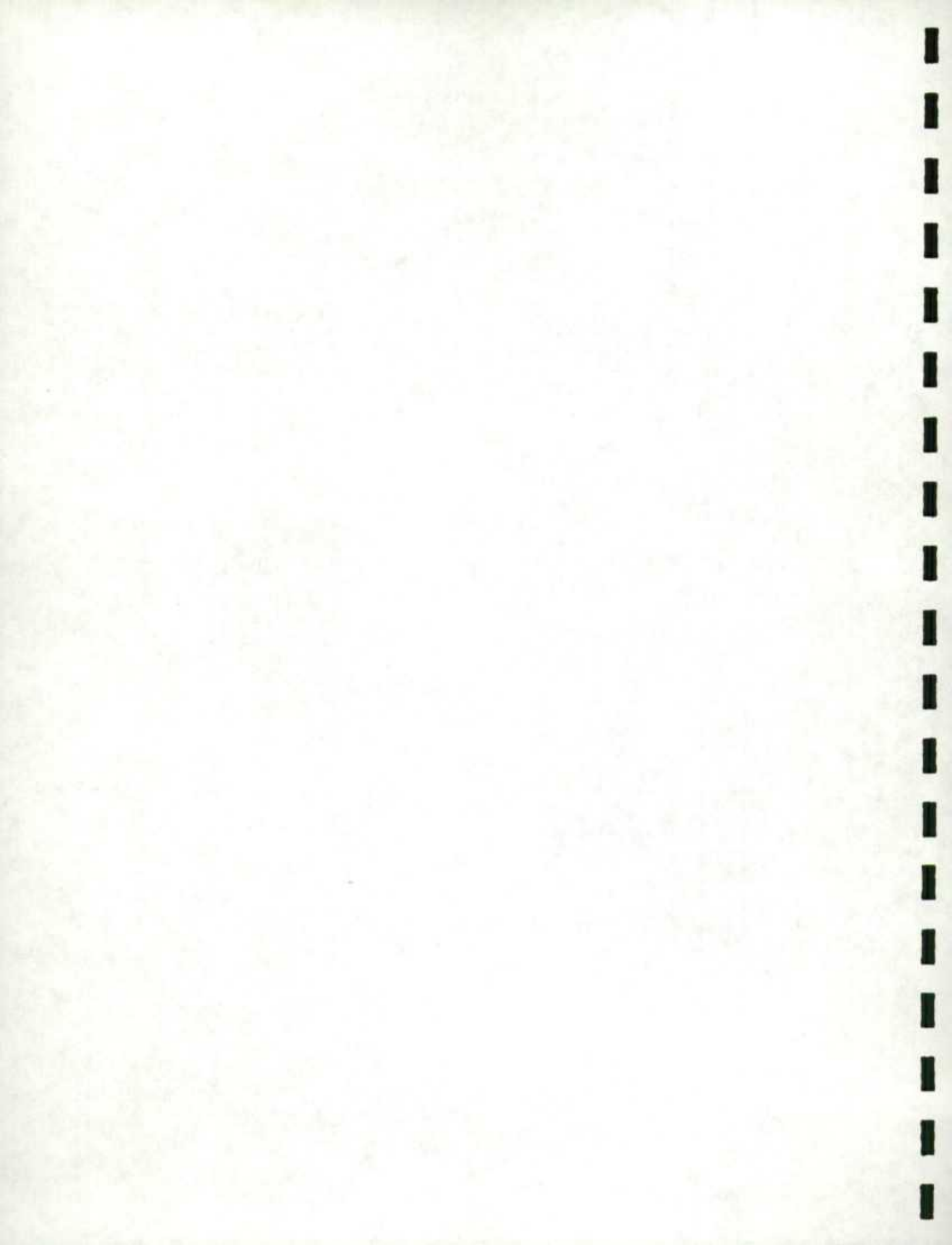
ing error of the estimate, as  
measured from sample results  
estimate a statistical measure  
andard error, from the sample  
error, confidence intervals  
he effects of non-sampling  
der the assumption that the  
istributed about the true  
ances are about 68 out of 100  
en a sample estimate and the  
ld be less than one standard  
0 that the difference would be  
rors, and virtually with  
ences would be less than three

ety of estimates that can be  
he standard deviation is  
e to the estimate to which it  
measure, known as the  
of an estimate is obtained by  
or of the estimate by the  
pressed 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%<br>0.6 to 1.0%<br>1.1 to 2.5%<br>2.6 to 5.0%<br>5.1 to 10.0%<br>10.1 to 16.5% | A<br>B<br>C<br>D<br>E<br>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). |



**TYPE OF ESTIMATE**

**COEFFICIENT OF VARIATION (IN %)**

**ALPHABETIC INDICATORS**

**GUIDELINE STATEMENT**

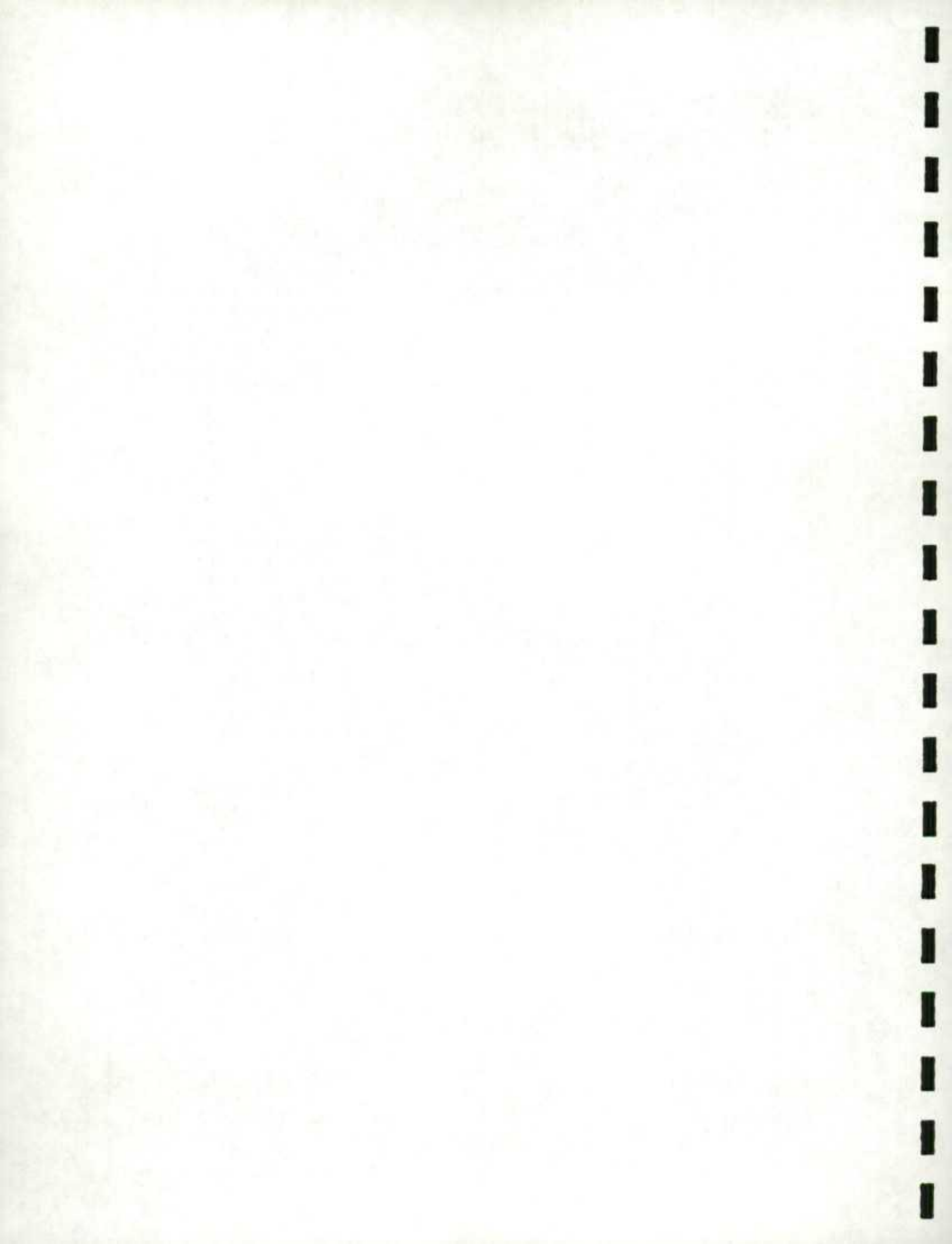
3 Restricted 25.1 to 33.3%

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**

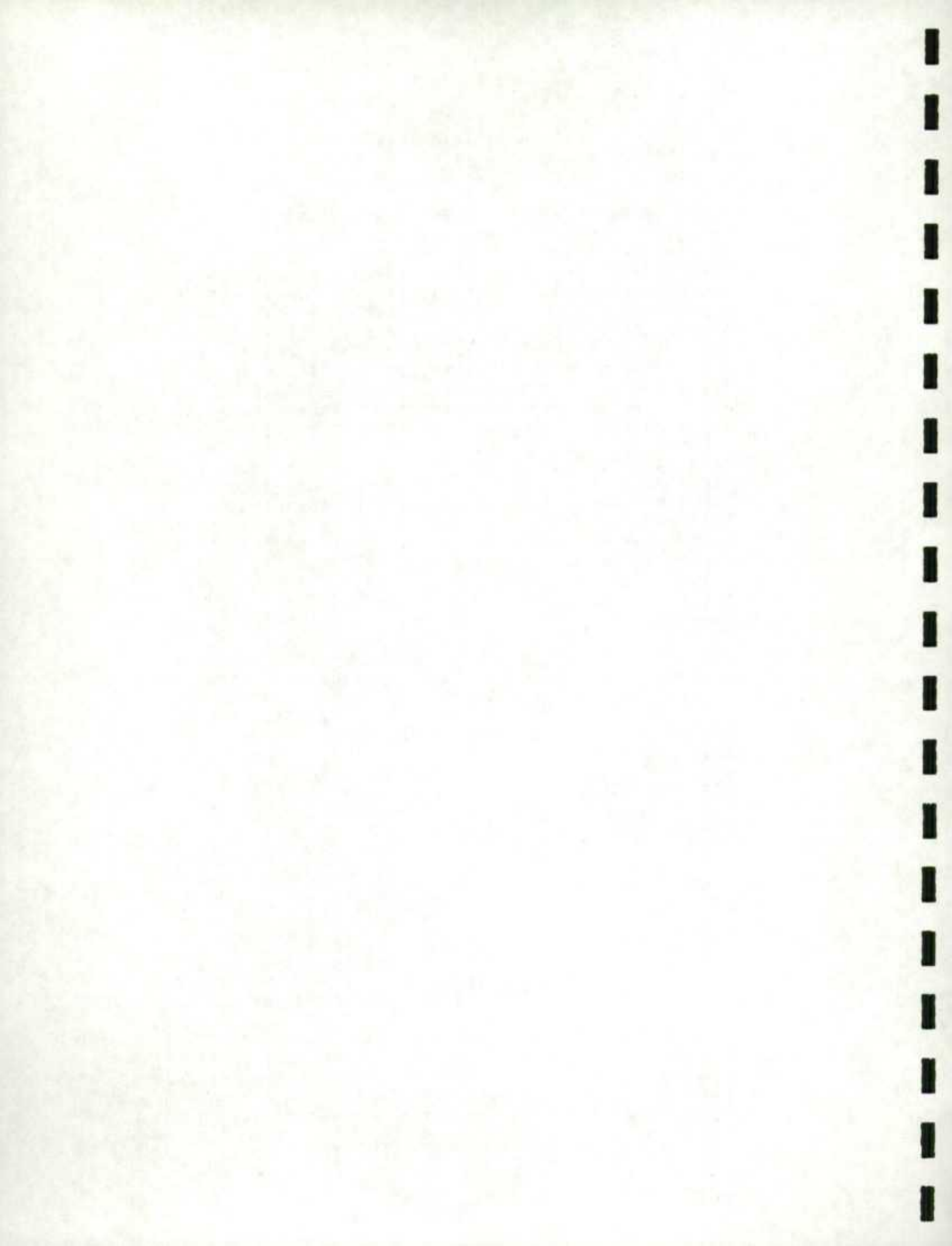
Derivation of sampling variabilities for each of the estimates which could be generated from the Apprentices and Journeymen Survey would be an extremely costly procedure, and for most users, an unnecessary one. Consequently, crude measures of sampling variability, in the form of tables, have been developed 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 asterisks 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.

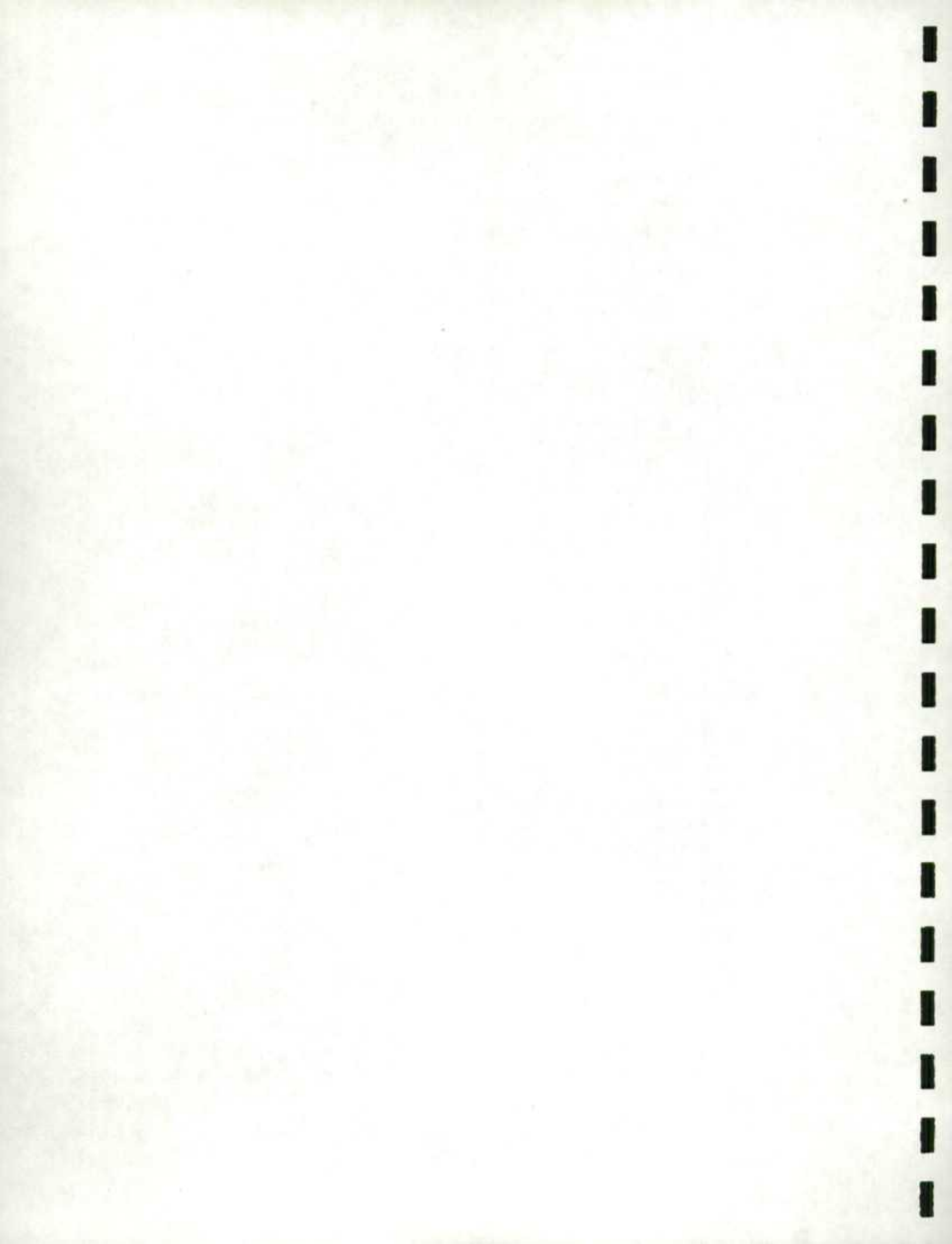
In the case where the numerator is not a subset of the denominator, the coefficient of variation of the ratio of the two estimates is approximately equal to the square root of the sum of squares of each coefficient of variation considered separately; that is, the coefficient of variation of a ratio:

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

is

$$cv(R) = cv(X)^2 + cv(Y)^2$$

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:

$$d = X - Y$$

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

The coefficient of variation of d is approximately

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

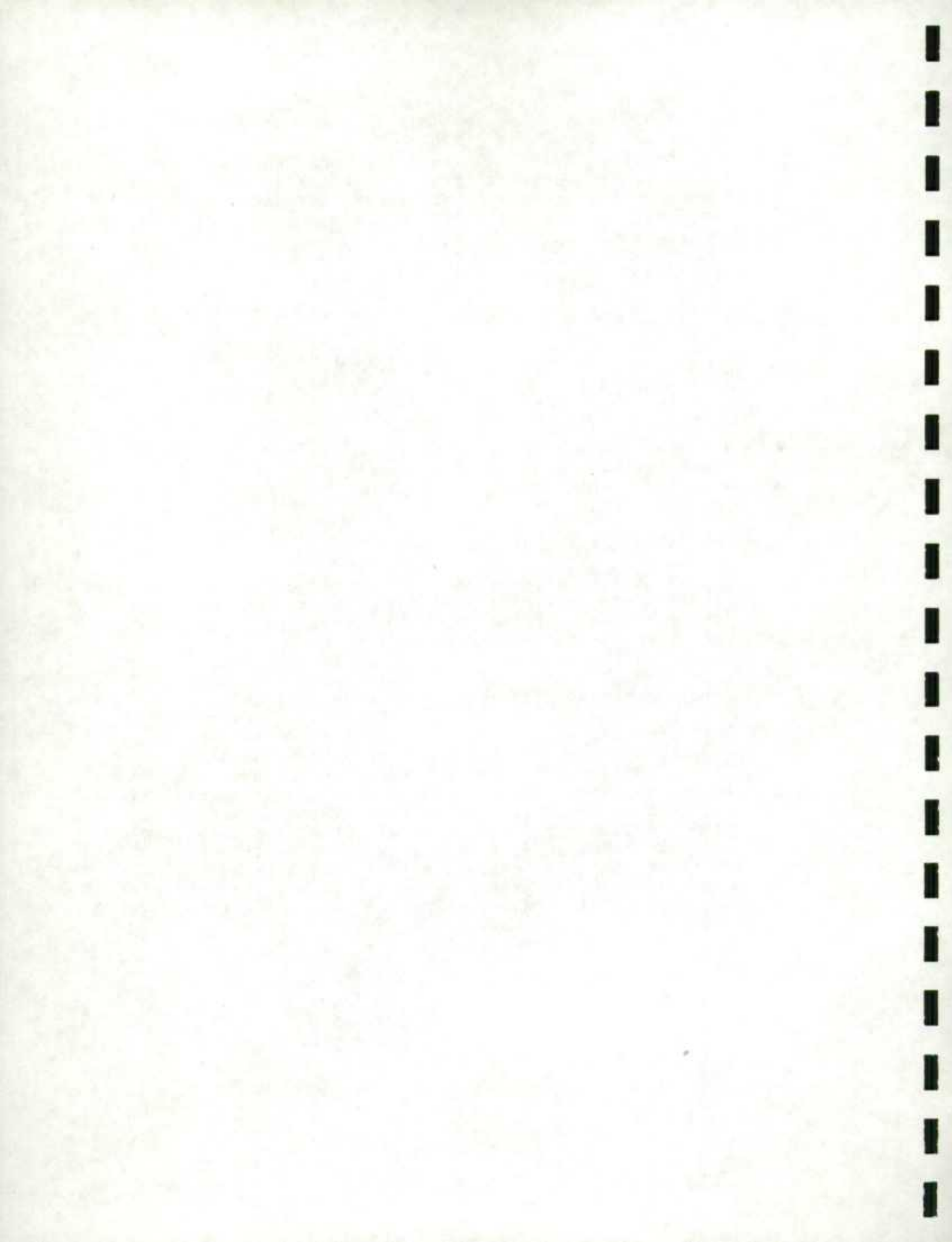
This formula is accurate for the difference between separate and uncorrelated characteristics but is only approximate otherwise.

#### **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

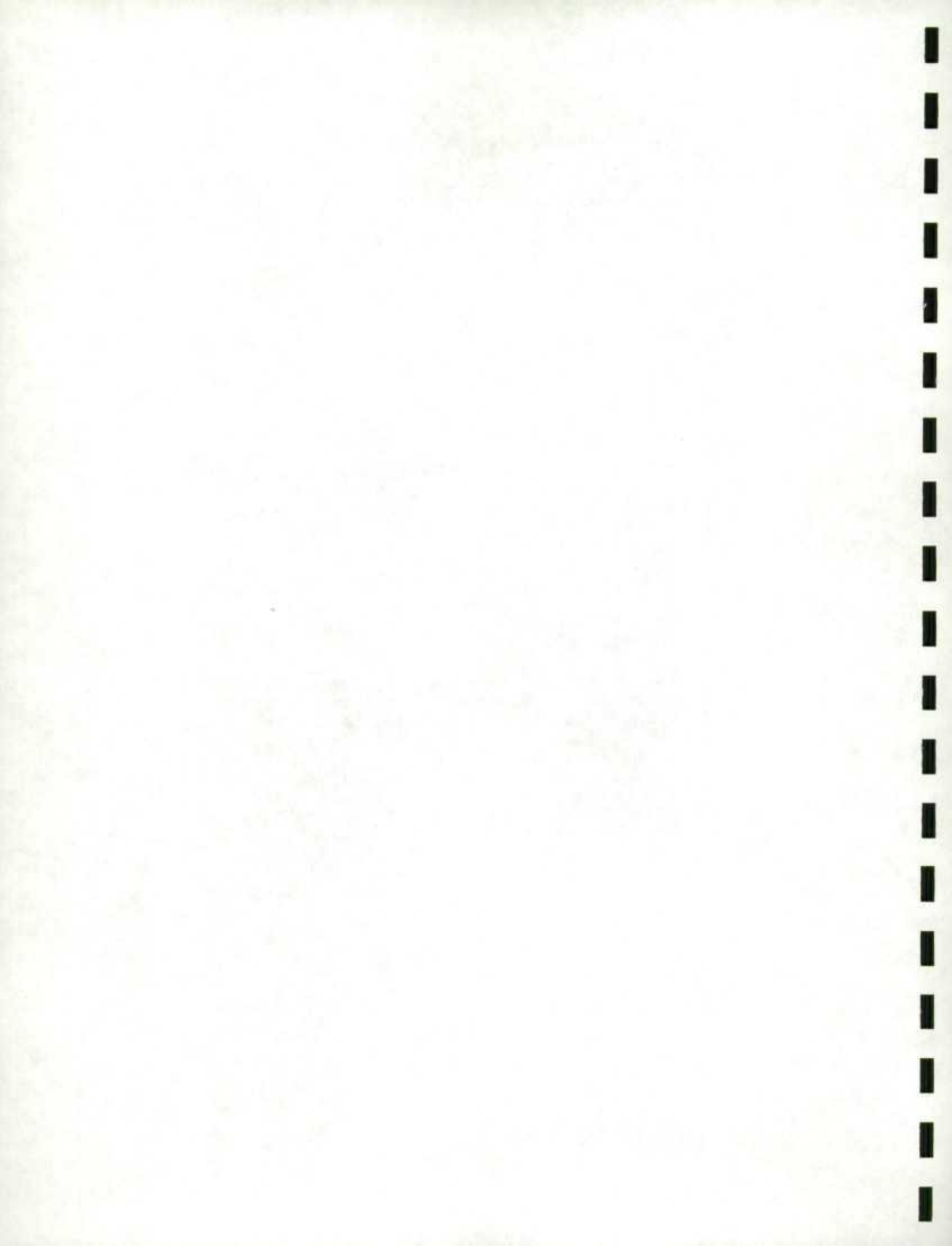
#### Rounding Policy

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

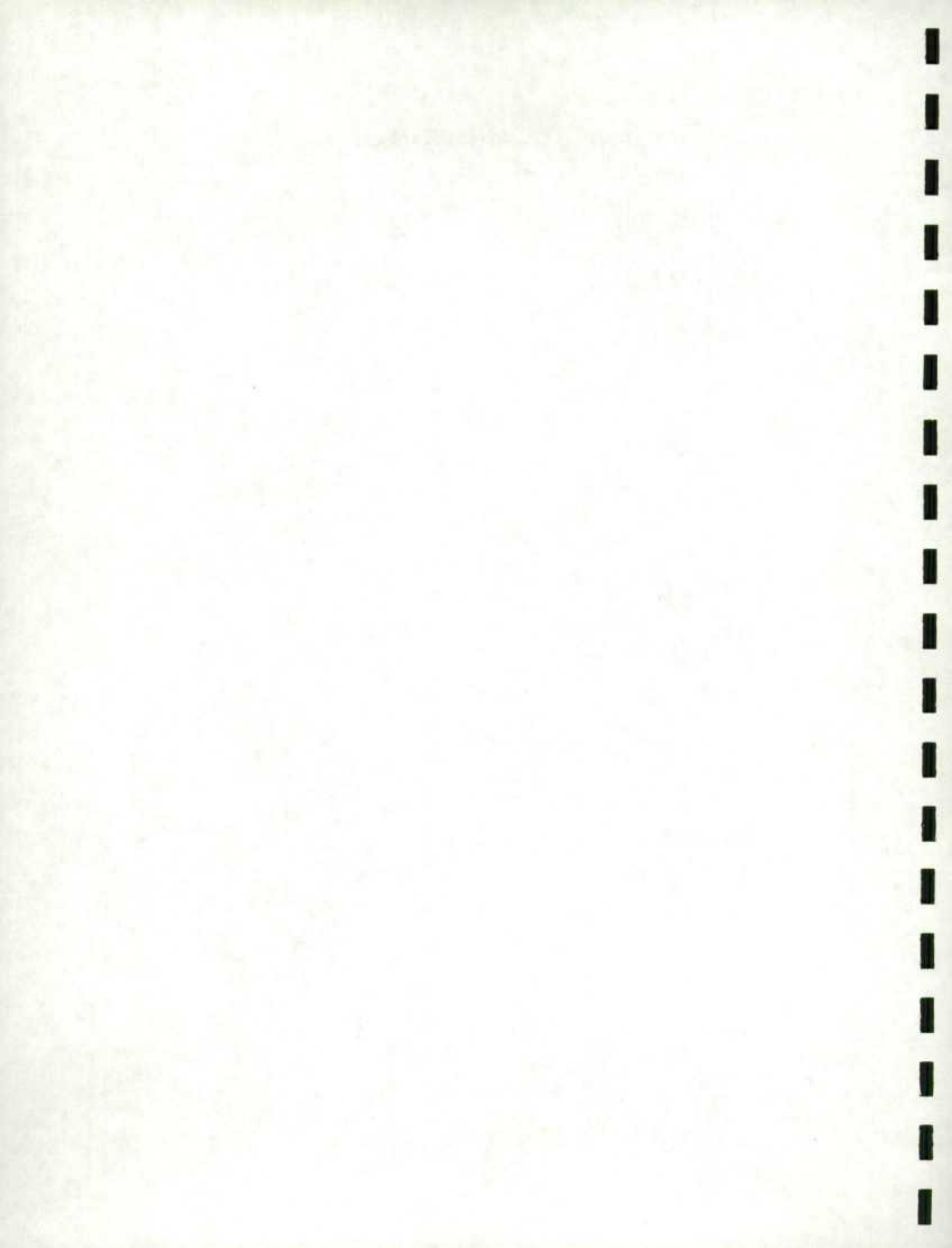
##### Rounding Guidelines

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.



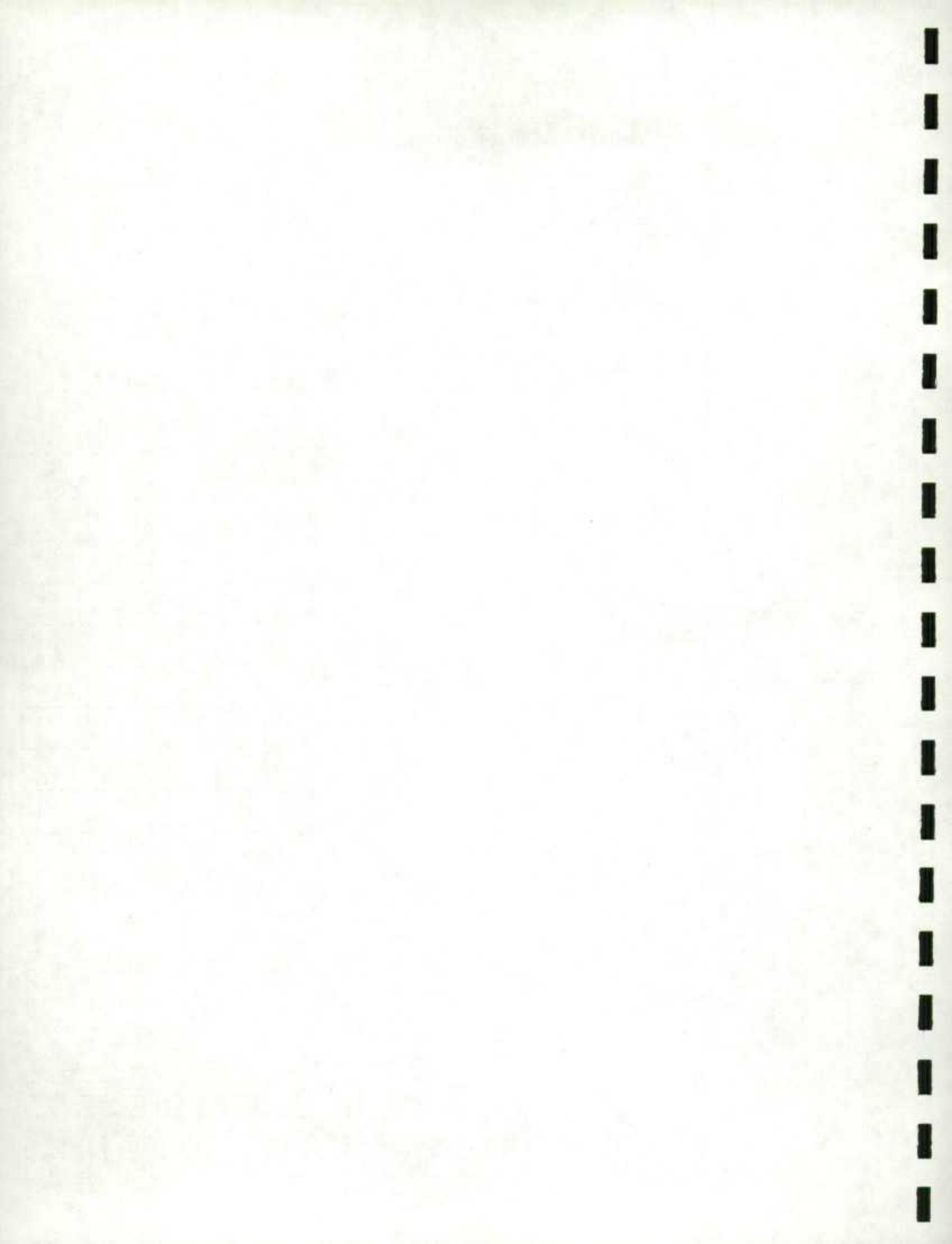
### 9.3.2 Normal Rounding

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.

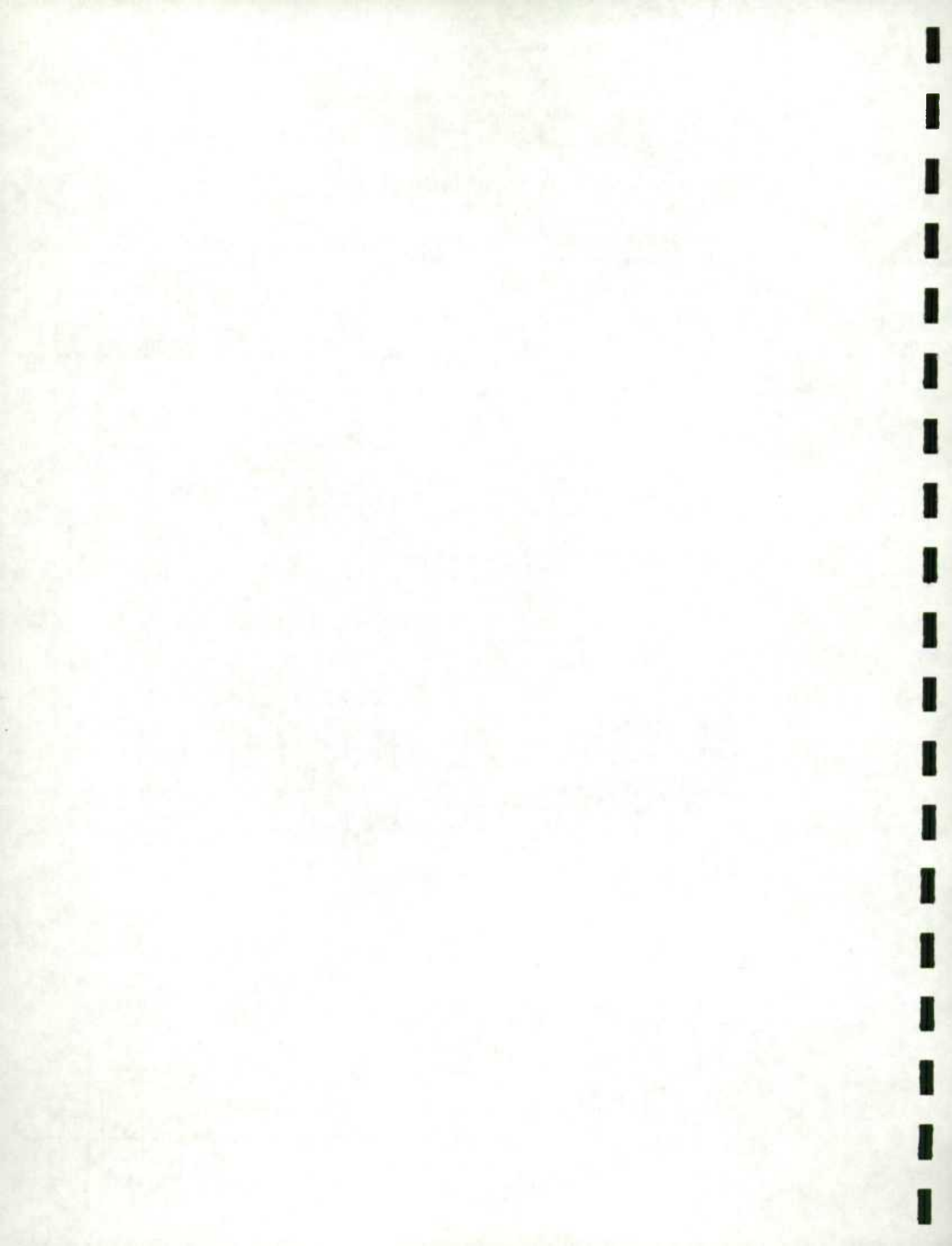




10. SURVEY DOCUMENTS







Docket No 2 [ ] Survey date 3 [ ] Assignment No 4 [ ]

Mo W [ ] Mo W [ ]

Mo W [ ] Mo W [ ]

10 LAST WEEK, DID YOU WORK AT A JOB OR BUSINESS? (Regardless of the number of hours.)

11 DID YOU HAVE MORE THAN ONE JOB OR BUSINESS LAST WEEK?

12 WAS THIS A RESULT OF CHANGING EMPLOYERS LAST WEEK?

13 HOW MANY HOURS PER WEEK DOES USUALLY WORK AT HIS/HER:

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

15 LAST WEEK, HOW MANY HOURS OF OVERTIME OR EXTRA HOURS DID YOU WORK?

16 LAST WEEK, HOW MANY HOURS WAS AWAY FROM WORK FOR ANY REASON? (Holiday, vacation, illness, labour dispute, etc.)

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

18 HOW MANY HOURS DID YOU ACTUALLY WORK LAST WEEK AT HIS/HER:

19 IN THE PAST 4 WEEKS, HAS LOOKED FOR ANOTHER JOB?

30 LAST WEEK, DID YOU HAVE A JOB OR BUSINESS AT WHICH HE/SHE DID NOT WORK?

31 LAST WEEK, DID YOU HAVE A JOB TO START AT A DEFINITE DATE IN THE FUTURE?

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

33 WHY WAS YOU ABSENT FROM WORK LAST WEEK? Enter code

34 DID YOU HAVE MORE THAN ONE JOB OR BUSINESS LAST WEEK?

35 HOW MANY HOURS PER WEEK DOES USUALLY WORK AT HIS/HER:

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?

39 INTERVIEWER CHECK ITEM

40 IN THE PAST 4 WEEKS, HAS LOOKED FOR ANOTHER JOB?

50 HAS YOU EVER WORKED AT A JOB OR BUSINESS? Yes No

51 WHEN DID YOU LAST WORK AT A JOB OR BUSINESS?

52 INTERVIEWER CHECK ITEM

53 DID YOU USUALLY WORK 30 OR MORE HOURS PER WEEK?

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

55 INTERVIEWER CHECK ITEM

56 IN THE PAST 6 MONTHS, HAS LOOKED FOR WORK?

57 IN THE PAST 4 WEEKS, WHAT HAS DONE TO FIND WORK? Mark all methods reported

57 IN THE PAST 4 WEEKS, HAS DONE ANYTHING ELSE TO FIND WORK? Mark all other methods reported

57 WHEN DID YOU LAST (Repeat method)?

Table with columns: Method used, No. of weeks ago (estd) wky week. Rows include PUBLIC employment AGENCY, PRIVATE employment AGENCY, UNION, EMPLOYERS directly, FRIENDS or relatives, Placed or answered ADS, LOOKED at job ADS, OTHER Specify in NOTES.

58 UP TO THE END OF LAST WEEK, HOW MANY WEEKS HAS BEEN LOOKING FOR WORK? (Not counting weeks worked.)

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

60 IS YOU LOOKING FOR A JOB TO LAST MORE THAN 6 MONTHS? Yes No

61 IS YOU LOOKING FOR A FULL-TIME OR PART-TIME JOB? Full-time Part-time

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

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

64 INTERVIEWER CHECK ITEM

80 LAST WEEK, WAS YOU ATTENDING A SCHOOL, COLLEGE OR UNIVERSITY? Yes No

81 WAS YOU ENROLLED AS A FULL-TIME OR A PART-TIME STUDENT? Full time Part time

82 WHAT KIND OF SCHOOL WAS THIS? Enter code

DESCRIPTION OF MAIN JOB OR BUSINESS

72 FOR WHOM DID YOU WORK? (Name of business, government dept. or agency, or person)

73 WHEN DID YOU START WORKING FOR THIS EMPLOYER? Mo W [ ] Mo W [ ]

74 WHAT KIND OF BUSINESS, INDUSTRY OR SERVICE WAS THIS? (Give full description, e.g., federal government, catering industry, forestry services.)

75A WHAT KIND OF WORK WAS YOU DOING? (Give full description, e.g., office clerk, factory worker, forestry technician.)

75B IN THIS WORK, WHAT WERE MOST IMPORTANT ACTIVITIES OR DUTIES? (Give full description, e.g., filing documents, drying vegetables, forest examiner.)

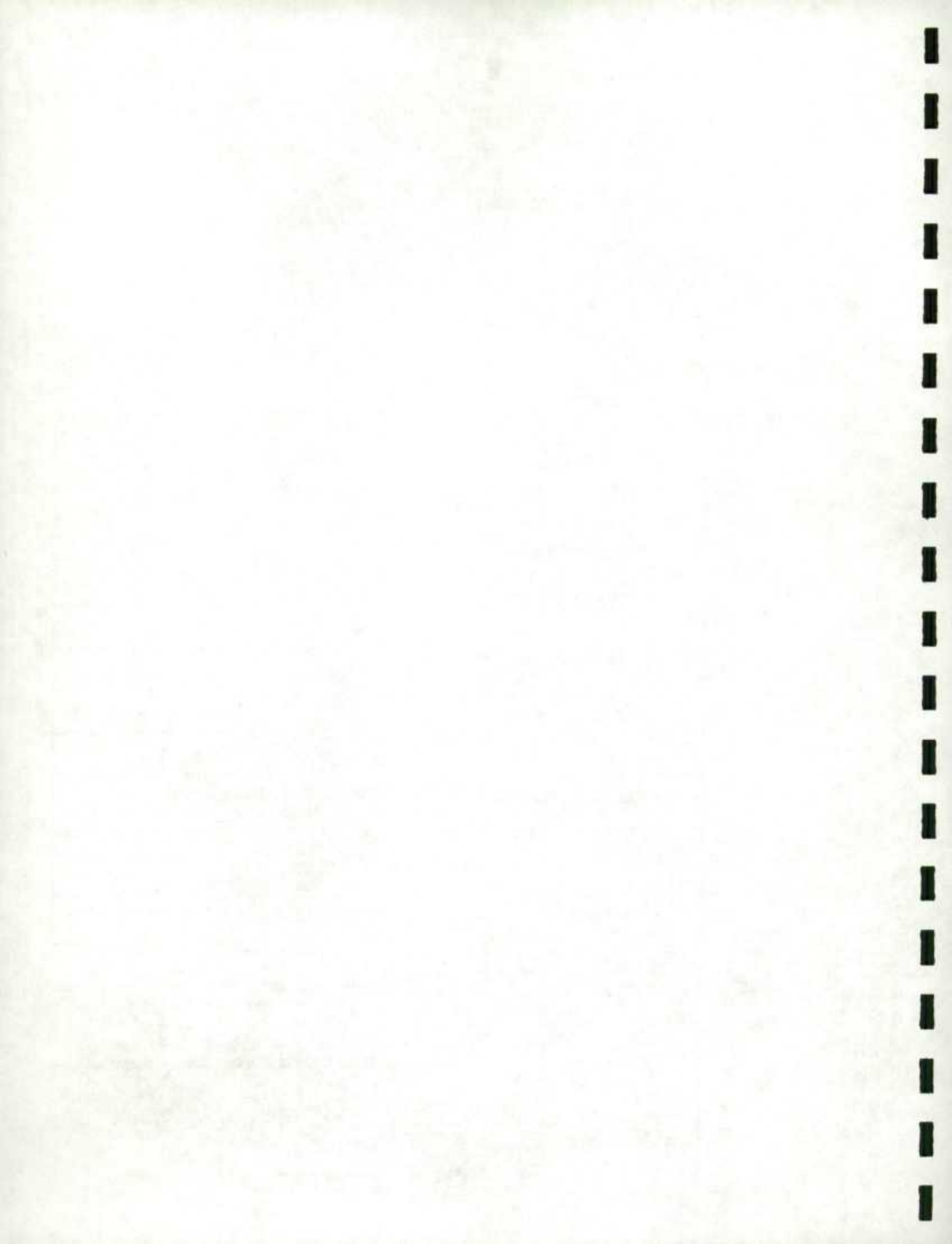
76 Main job No change Enter code

77 Other job No change Enter code go to 80

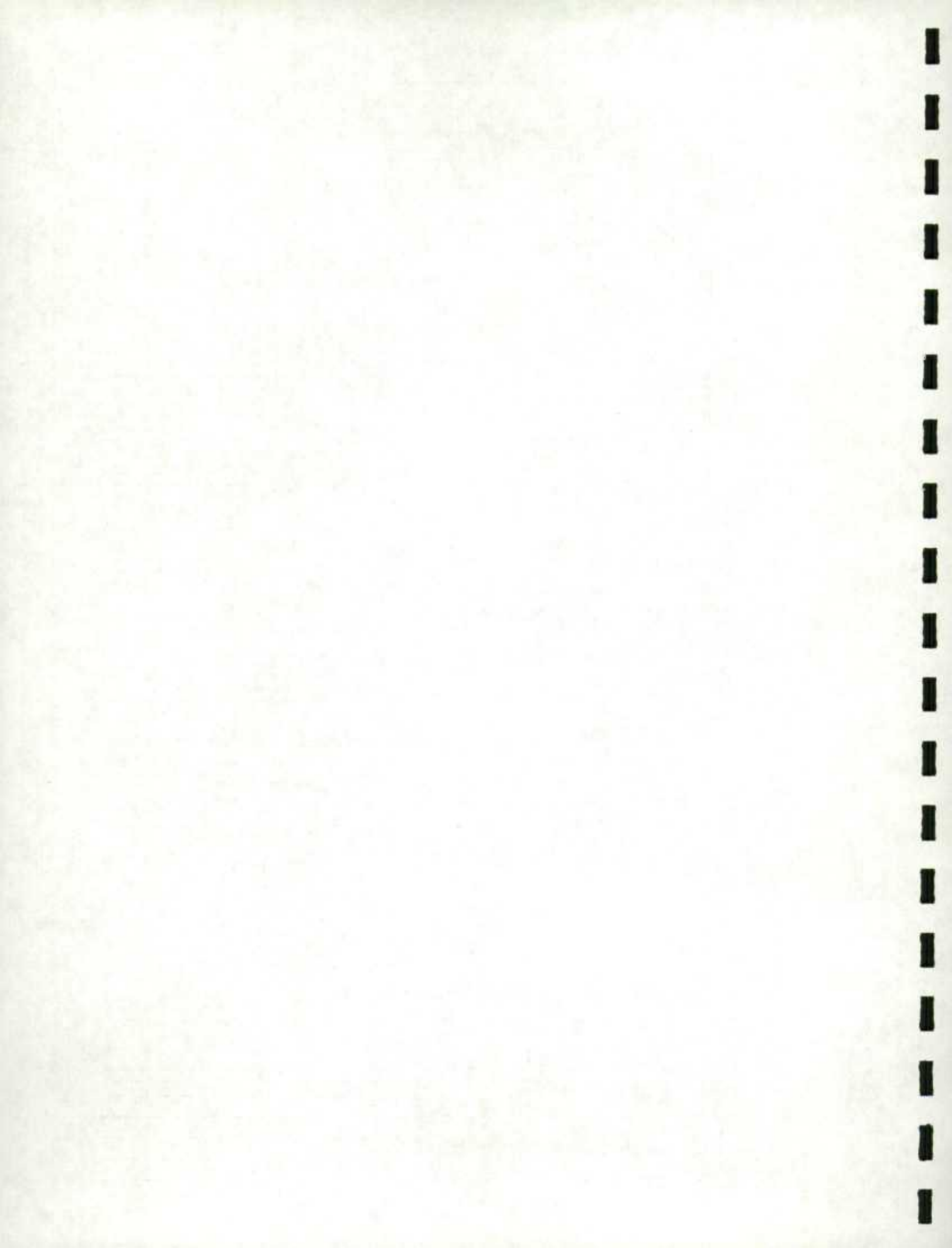
NOTES

EDUCATIONAL ACTIVITIES (If age 65 or over, go to 90)

90 INFORMATION SOURCE









2 N° du dossier  3 Date d'enquête  4 N° de tâche  5 N° de l'intervieweur désigné  6 Votre n° d'intervieweur

7 N° de renouvel.  8 Genre de logement

9 U.P.E.  Groupe  Groupe  10 Adresse de liste

11 À L'INTERVIEWEUR:  
S'agit-il de la première interviewe à ce logement ou d'un nouveau ménage depuis la dernière interviewe?  
Oui  Passez à 12 Non  Passez à 20

12 EST-CE QUE (liez l'adresse de liste au poste 10) EST VOTRE ADRESSE POSTALE EXACTE?  
Oui  Passez à 13 Non  Inscrivez l'adresse postale exacte sur la formule 23 et passez à 13

13 PREFEREZ-VOUS ÊTRE INTERVIEWÉ(E) EN FRANÇAIS OU EN ANGLAIS?  
Anglais  Français  L'un ou l'autre

14 À L'INTERVIEWEUR:  
Langue de l'interview.  
Anglais  Français  Autre  Passez à 15

15 VEUILLEZ NOMMER TOUTES LES PERSONNES QUI DEMEURENT ACTUELLEMENT ICI ET QUI N'ONT PAS DE RÉSIDENCE HABITUELLE AILLEURS.  
Inscrivez les noms à 32.

16 Y A-T-IL DES PERSONNES QUI SONT ABSENTES DU MÉNAGE PARCE QU'ELLES SONT AUX ÉTUDES, EN VISITE, EN VOYAGE OU À L'HÔPITAL, MAIS QUI DEMEURENT HABITUELLEMENT ICI?  
Oui  Inscrivez les noms à 32 et passez à 22 Non  Passez à 22

22 Y A-T-IL QUELQU'UN D'AUTRE QUI DEMEURE DANS CE LOGEMENT, PAR EXEMPLE UN PARENT, UN CHAMBREUR, UN PENSIONNAIRE OU UN EMPLOYÉ?  
Oui  Inscrivez les noms à 32 REMPLISSEZ les postes 33 à 40, puis passez à 42 Non

20 S'il s'agit d'une interview sur place  Passez à 21  
Autrement, demandez  
DEMEUREZ-VOUS ENCORE DANS LE MÊME LOGEMENT QUE LE MOIS DERNIER?  
Oui  Passez à 21 Non  Visitez sur place nécessaire

21 LES PERSONNES SUIVANTES DEMEURENT-ELLES ENCORE DANS CE LOGEMENT?  
Liez tous les noms inscrits à 32  
Inscrivez le code approprié au poste 40

20 INTERVIEW SUBSEQUENTE

| 31           | 32                         | 33  | 34          | 35     | 36                                | 37            | 38              | 40 | 50                                     |
|--------------|----------------------------|-----|-------------|--------|-----------------------------------|---------------|-----------------|----|----------------------------------------|
| DM<br>P<br>L | Noms des membres du ménage | Âge | S<br>e<br>x | E<br>m | L<br>e-<br>v<br>e<br>c<br>le<br>m | Niv<br>d'inst | Composi<br>tion |    | Réponses aux questions supplémentaires |
|              |                            |     |             |        |                                   |               |                 |    | L A B C D E F G H I J K L M            |
| 1            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 1                                      |
| 2            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 2                                      |
| 3            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 3                                      |
| 4            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 4                                      |
| 5            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 5                                      |
| 6            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 6                                      |
| 7            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 7                                      |
| 8            | Prenom<br>Nom de famille   |     |             |        |                                   |               |                 |    | 8                                      |

42 CE LOGEMENT APPARTIEN-T-IL À UN MEMBRE DE CE MÉNAGE?  
Oui  Passez directement aux FORMULES 05 et 06 Non  Remplissez la FORMULE 04

REPLISSEZ À LA FIN DE L'INTERVIEW

43 POUR TOUS LES MÉNAGES

N° de téléphone  → Permission d'interviewer par téléphone  
Accordée  Refusée  Passez à 44

Pas de téléphone 1  ou N° de téléphone 2 refusé  Passez à 44

44 Déterminez et inscrivez le meilleur moment pour contacter ce ménage.

45 CODE-RÉPONSE

Mois

Code

SI CODE "0" EXPLIQUEZ DANS LES NOTES

46 Cette interview a-t-elle été faite par téléphone?  
Oui  Non

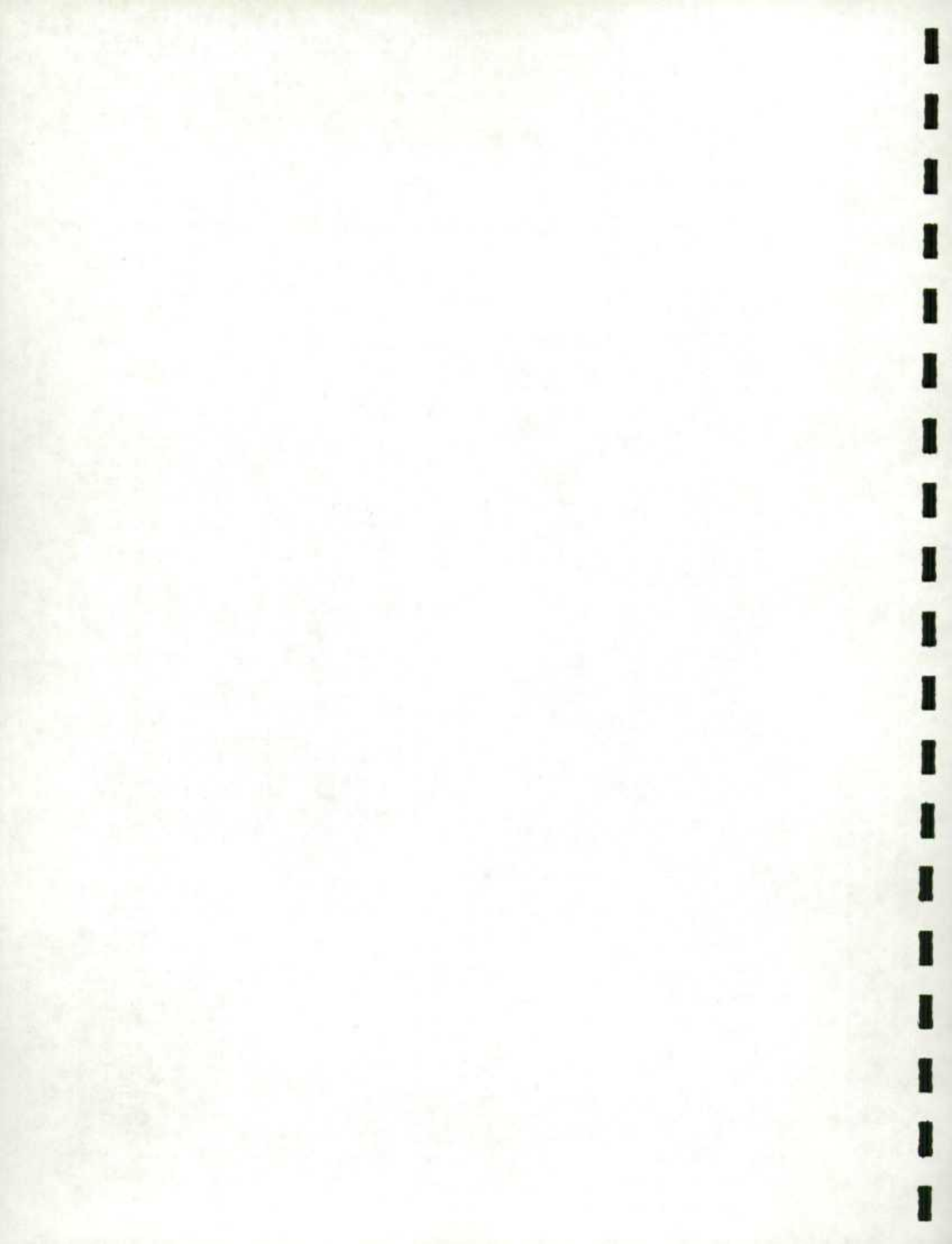
47 Contrôle des formules

|           |    |    |    |
|-----------|----|----|----|
| Formules  | 04 | 05 | 06 |
| Imprimées |    |    |    |
| Remplies  |    |    |    |

48 NOTES

Passez au verso pour NOTES additionnelles

| L | M | N° de ligne |  |
|---|---|-------------|--|
| 1 |   |             |  |
| 2 |   |             |  |
| 3 |   |             |  |
| 4 |   |             |  |
| 5 |   |             |  |
| 6 |   |             |  |
| 7 |   |             |  |
| 8 |   |             |  |



Form header with fields for 'N° de dossier', 'Date d'entrée', 'N° de bureau', '1 FORMULE 05', and 'N° de page'.

10 LA SEMAINE DERNIÈRE... A-T-IL(ELLE) TRAVAILLÉ À UN EMPLOI OU À UNE ENTREPRISE? (Pour indiquer le nombre d'heures.)

30 LA SEMAINE DERNIÈRE... A-T-IL(ELLE) UN EMPLOI OU UNE ENTREPRISE AUXQUELS IL(ELLE) N'A PAS TRAVAILLÉ?

50... A-T-IL(ELLE) DÉJÀ TRAVAILLÉ À UN EMPLOI OU À UNE ENTREPRISE? Ou 1 Non 2 Oui

11... A-T-IL(ELLE) PLUS D'UN EMPLOI OU PLUS D'UNE ENTREPRISE LA SEMAINE DERNIÈRE?

31 LA SEMAINE DERNIÈRE... A-T-IL(ELLE) UN EMPLOI DEVANT COMMENCER À UNE DATE FUTURE DÉTERMINÉE?

51 QUAND... A-T-IL(ELLE) TRAVAILLÉ À UN EMPLOI OU À UNE ENTREPRISE LA SEMAINE DERNIÈRE?

12 ÉTAIT-CE DU À UN CHANGEMENT D'EMPLOYEUR LA SEMAINE DERNIÈRE?

32 À PARTIR DE LA FIN DE SEMAINE DERNIÈRE, DANS COMBIEN DE SEMAINES... A-T-IL(ELLE) COMMENCÉ À TRAVAILLER À SON NOUVEAU EMPLOI?

52 À L'INTERVIEWER (1) Si la date à 51 est votre date (2) Si la date à 51 est le mois que vous ne pouvez pas...

13 COMBIEN D'HEURES PAR SEMAINE... TRAVAILLE-T-IL(ELLE) HABITUELLEMENT À SON EMPLOI (principal)?

33 POURQUOI... S'EST-IL(ELLE) ABSENTI(E) DU TRAVAIL LA SEMAINE DERNIÈRE?

53... TRAVAILLANT-IL(ELLE) HABITUELLEMENT 30 HEURES OU PLUS PAR SEMAINE?

14 POURQUOI... TRAVAILLE-T-IL(ELLE) HABITUELLEMENT MOINS DE 30 HEURES PAR SEMAINE?

34... A-T-IL(ELLE) PLUS D'UN EMPLOI OU PLUS D'UNE ENTREPRISE LA SEMAINE DERNIÈRE?

54 QUELLE EST LA RAISON PRINCIPALE POUR LAQUELLE... A LAISSÉ CET EMPLOI?

15 LA SEMAINE DERNIÈRE, COMBIEN D'HEURES SUPPLÉMENTAIRES... A-T-IL(ELLE) TRAVILLÉ?

35 COMBIEN D'HEURES PAR SEMAINE... TRAVAILLE-T-IL(ELLE) HABITUELLEMENT À SON EMPLOI (principal)?

55 À L'INTERVIEWER \* Si "travaillé partiellement" à 10 \* Autrement à 56

16 LA SEMAINE DERNIÈRE, COMBIEN D'HEURES... A-T-IL(ELLE) ÉTÉ ABSENTI(E) DU TRAVAIL POUR UNE RAISON QUELCONQUE?

36 POURQUOI... TRAVAILLE-T-IL(ELLE) HABITUELLEMENT MOINS DE 30 HEURES PAR SEMAINE?

56 AU COURS DES 6 DERNIERS MOIS... S'EST-IL(ELLE) CHERCHÉ DU TRAVAIL?

17 QUELLE ÉTAIT LA RAISON PRINCIPALE DE CETTE ABSENCE?

37 JUSQU'À LA FIN DE LA SEMAINE DERNIÈRE, PENDANT COMBIEN DE SEMAINES CONSÉCUTIVES... A-T-IL(ELLE) ÉTÉ ABSENTI(E) DU TRAVAIL?

57 AU COURS DES 4 DERNIÈRES SEMAINES, OUA FAIT... POUR SE TROUVER DU TRAVAIL? Autre toute méthode indiquée

18 COMBIEN D'HEURES... A-T-IL(ELLE) EFFECTIVEMENT TRAVAILLÉ LA SEMAINE DERNIÈRE À SON EMPLOI (principal)?

38... REÇOIT-IL(ELLE) UNE RÉMUNÉRATION DE SON EMPLOYEUR POUR SES ABSENCE DE LA SEMAINE DERNIÈRE?

58 JUSQU'À LA FIN DE LA SEMAINE DERNIÈRE, PENDANT COMBIEN DE SEMAINES... A-T-IL(ELLE) CHERCHÉ DU TRAVAIL? (Ne comptant pas les semaines travaillées.)

19 AU COURS DES 4 DERNIÈRES SEMAINES, S'EST-IL(ELLE) CHERCHÉ UN AUTRE EMPLOI?

39 À L'INTERVIEWER \* Si code 5 (voir à part) à 33 \* Autrement à 40

59 QUELLE ÉTAIT L'ACTIVITÉ PRINCIPALE DE... A-T-IL(ELLE) COMMENCÉ À SE CHERCHER DU TRAVAIL?

20... A-T-IL(ELLE) CHERCHÉ UN AUTRE EMPLOI?

40 AU COURS DES 4 DERNIÈRES SEMAINES, S'EST-IL(ELLE) CHERCHÉ UN AUTRE EMPLOI?

60... CHERCHÉ-T-IL(ELLE) UN EMPLOI DE PLUS DE 8 MOIS?

DESCRIPTION DE L'EMPLOI OU DE L'ENTREPRISE (activité principale): 72 POUR QUEL TRAVAILLE-T-IL(ELLE)? (Nom de l'entreprise, de l'organisme gouvernemental ou de la personne)

73 QUAND... A-T-IL(ELLE) COMMENCÉ À TRAVAILLER POUR CET EMPLOYEUR?

74 DE QUEL GENRE D'ENTREPRISE, D'INDUSTRIE OU DE SERVICE S'AGISSAIT-IL? (Donner une description complète, par ex., gouvernement fédéral, conserves, services postaux.)

61... CHERCHÉ-T-IL(ELLE) UN EMPLOI À TEMPS PLEIN OU UN EMPLOI À TEMPS PARTIEL?

75A QUEL GENRE DE TRAVAIL... FAISAIT-IL(ELLE)? (Par exemple, commis de bureau, vendeur(e) d'usine, technicienne) travailleur(e)s.

75B DANS CE TRAVAIL, QUELLES ÉTAIENT LES ACTIVITÉS OU FONCTIONS LES PLUS IMPORTANTES DE...? (Par ex., classement de documents, séchage de légumes, estimation travailleur.)

62 QUELLE EST LA RAISON PRINCIPALE POUR LAQUELLE... N'A PAS CHERCHÉ DE TRAVAIL LA SEMAINE DERNIÈRE?

76 Catégorie de travailleur: Emplois privés

77 Autres emplois

63 Y A-T-IL UNE RAISON QUI AURAIT EMPÊCHÉ... DE PRENDRE UN EMPLOI LA SEMAINE DERNIÈRE?

76A Catégorie de travailleur: Emplois privés

76B Catégorie de travailleur: Autres emplois

64 À L'INTERVIEWER \* Si "non" (autre réponse) à 50 \* Si "oui" à un "non" dans le cercle de haut à 52 \* Autrement à 72

76C Catégorie de travailleur: Autres emplois

76D Catégorie de travailleur: Autres emplois

65 ACTIVITÉ SCOLAIRE (à 65 ans et plus, passer à 93)

76E Catégorie de travailleur: Autres emplois

76F Catégorie de travailleur: Autres emplois

66 LA SEMAINE DERNIÈRE... FRÉQUENTAIT-IL(ELLE) UNE ÉCOLE, UN COLLÈGE OU UNE UNIVERSITÉ?

76G Catégorie de travailleur: Autres emplois

76H Catégorie de travailleur: Autres emplois

67... ÉTAIT-IL(ELLE) INSCRITE(É) COMME ÉTUDIANTE(É) À TEMPS PLEIN OU À TEMPS PARTIEL?

76I Catégorie de travailleur: Autres emplois

76J Catégorie de travailleur: Autres emplois

68 DE QUEL GENRE D'ÉCOLE S'AGIT-IL?

76K Catégorie de travailleur: Autres emplois

76L Catégorie de travailleur: Autres emplois

69 SOURCE DE RENSEIGNEMENTS

76M Catégorie de travailleur: Autres emplois

76N Catégorie de travailleur: Autres emplois

70 N° de page après le 01 de la personne qui a fourni les renseignements à classe

76O Catégorie de travailleur: Autres emplois

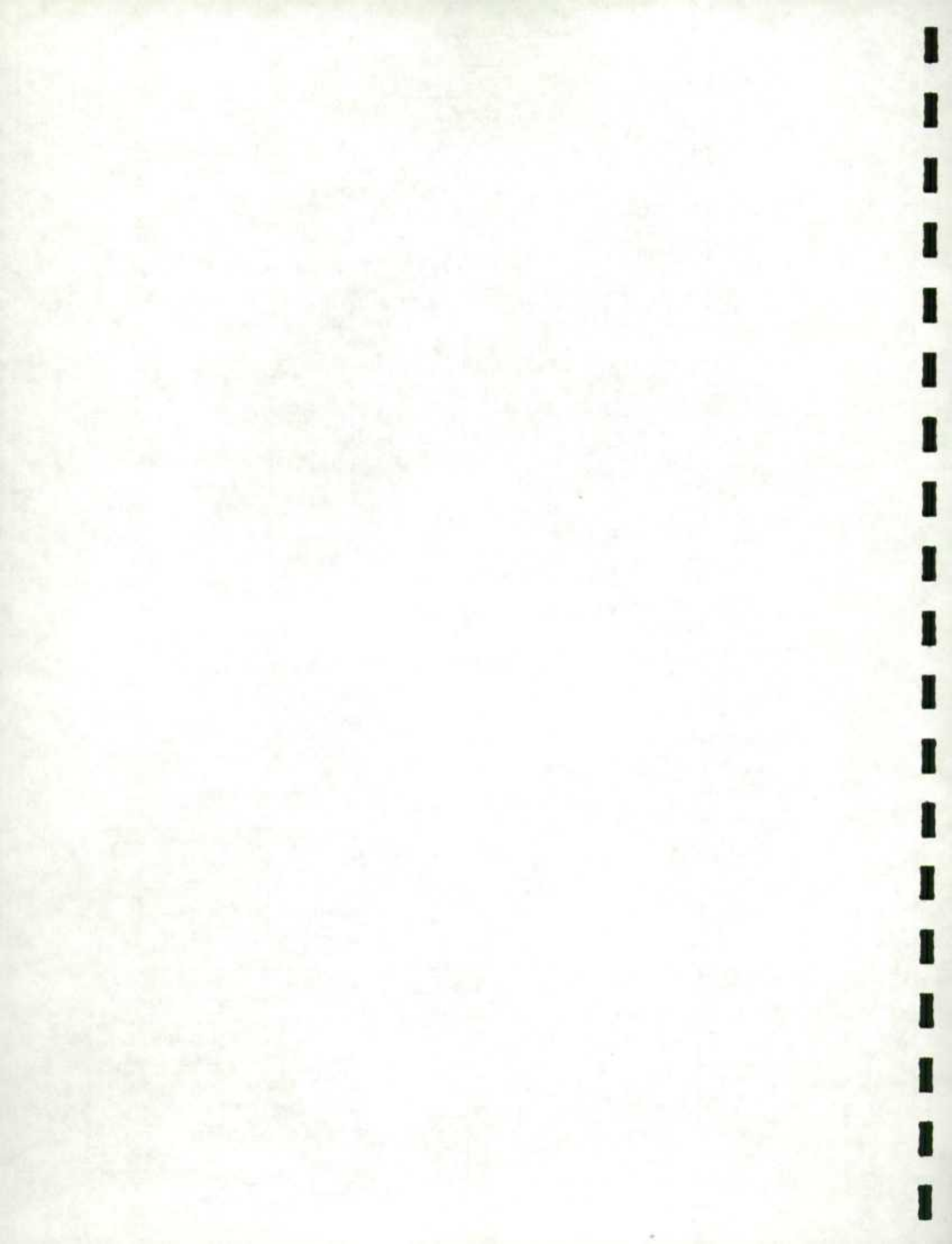
76P Catégorie de travailleur: Autres emplois

71 La semaine dernière, a-t-il travaillé à un emploi ou à une entreprise? (voir à part)

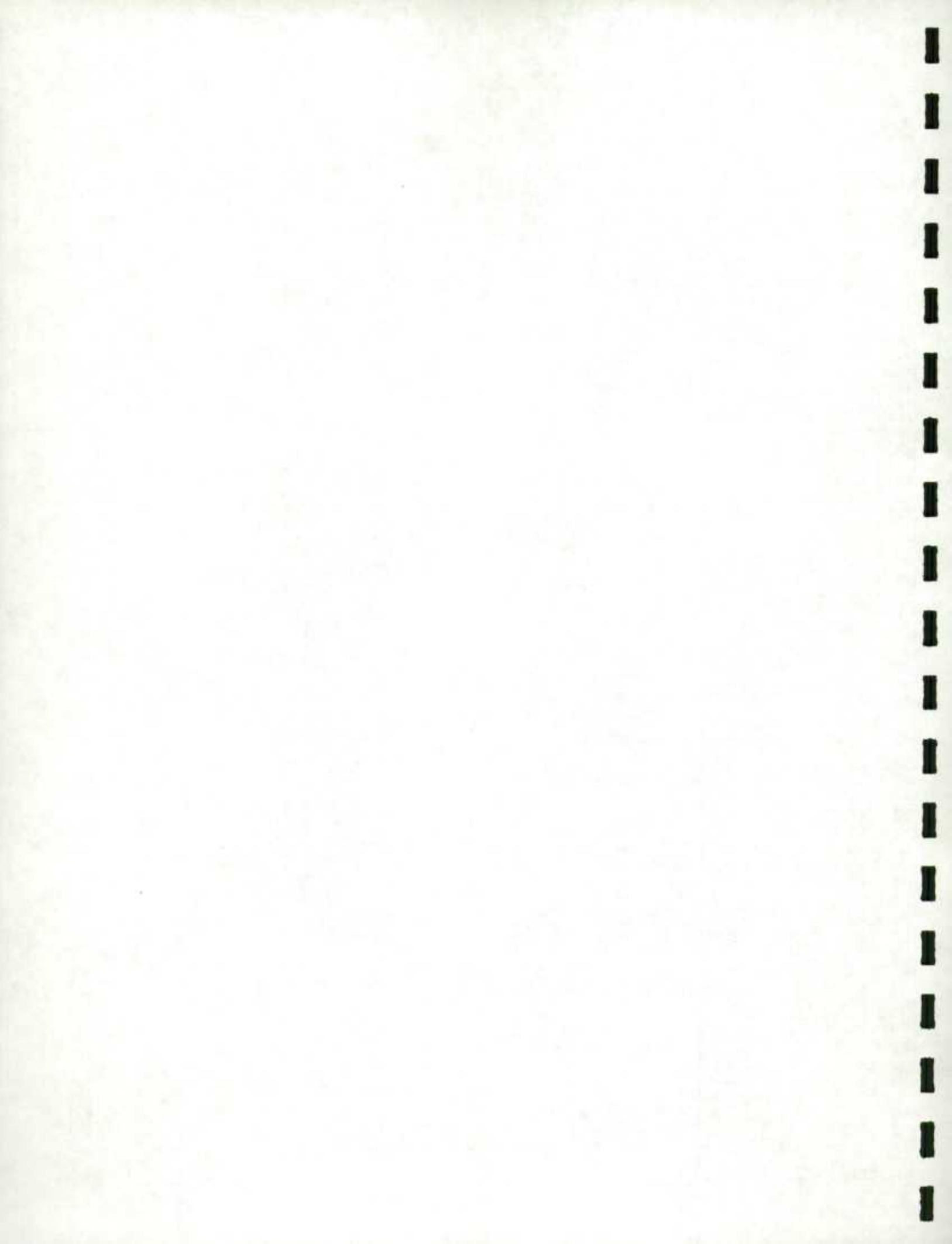
76Q Catégorie de travailleur: Autres emplois

76R Catégorie de travailleur: Autres emplois

72 DÉCLARATION ENQUÊTE EN VERTU DE LA LOI SUR LA STATISTIQUE, chapitre 15, Statuts du Canada de 1870-71-72



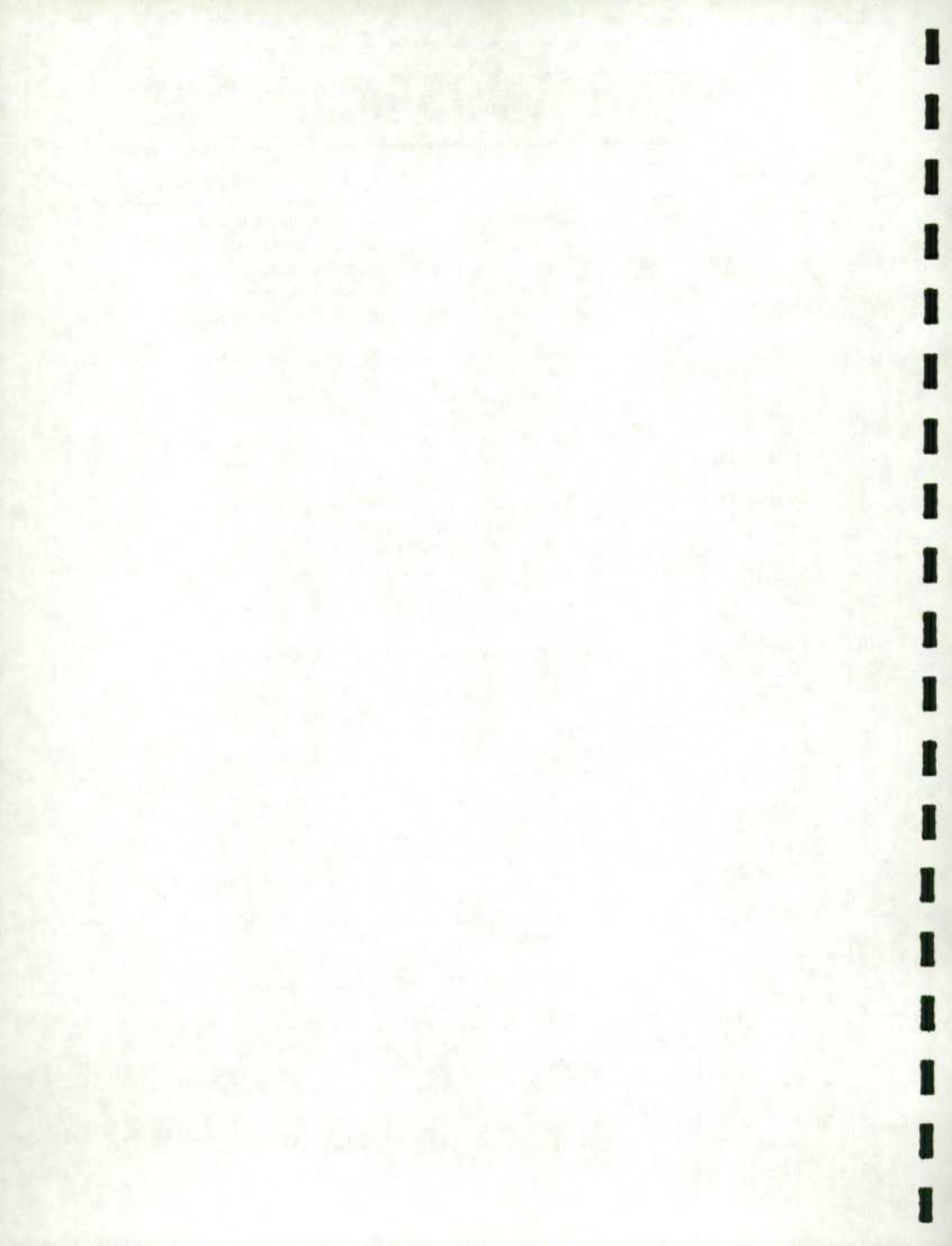






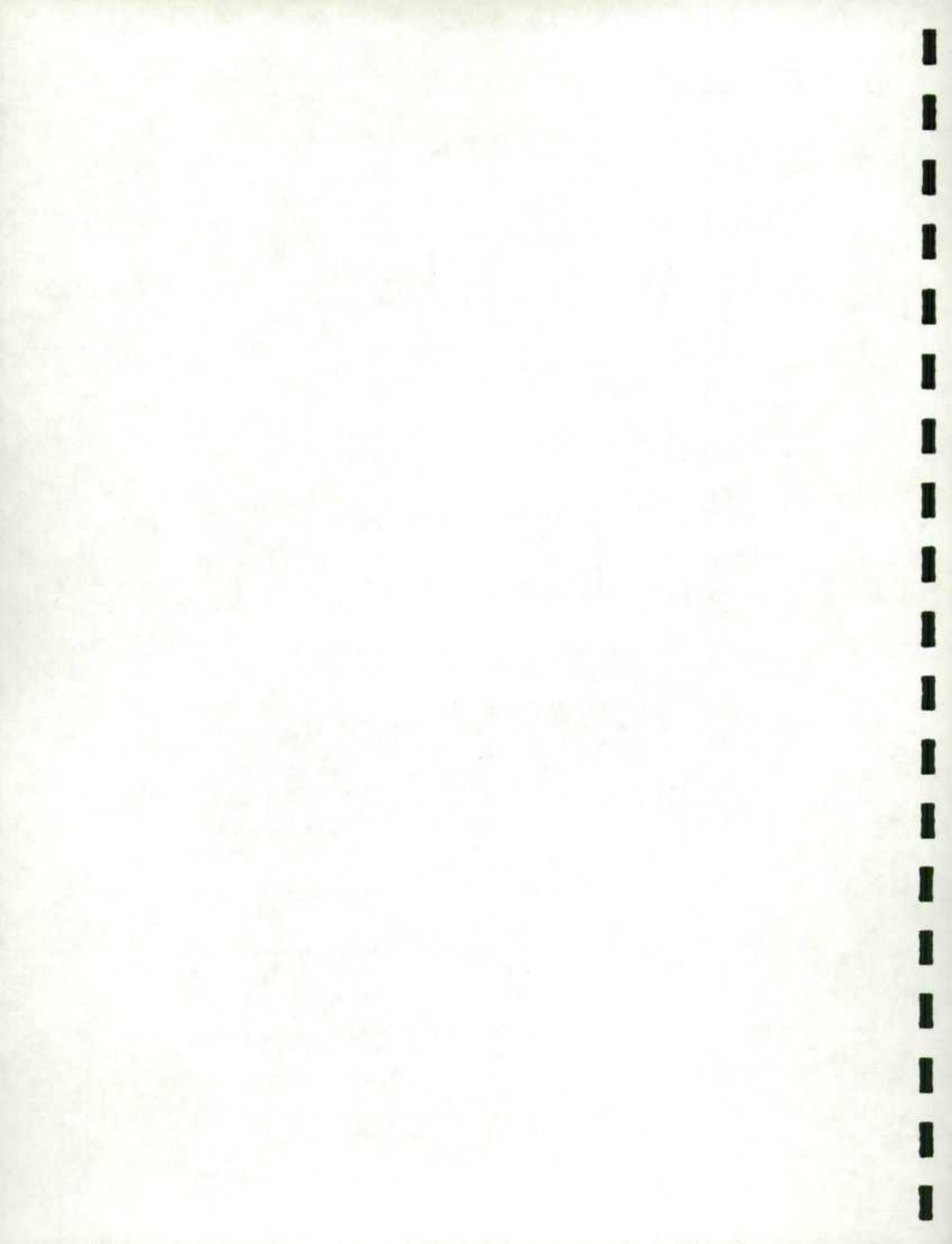
# Apprenticeship Trades

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

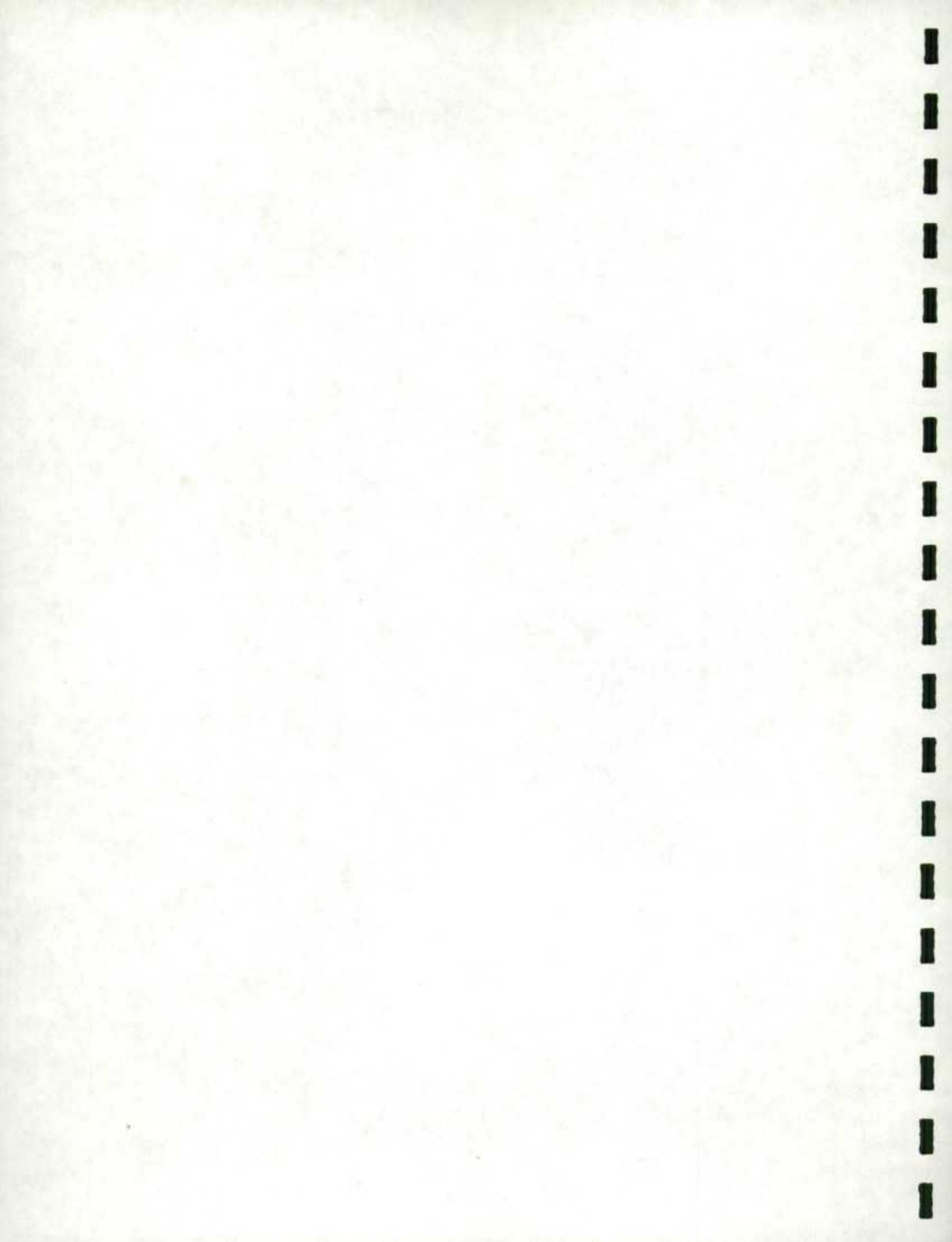




| <b>Code</b> | <b>Name of Trade</b>                | <b>Description</b>                                                                                                                              | <b>CODE SHEET</b> |
|-------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 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                                                                                                                                |                   |

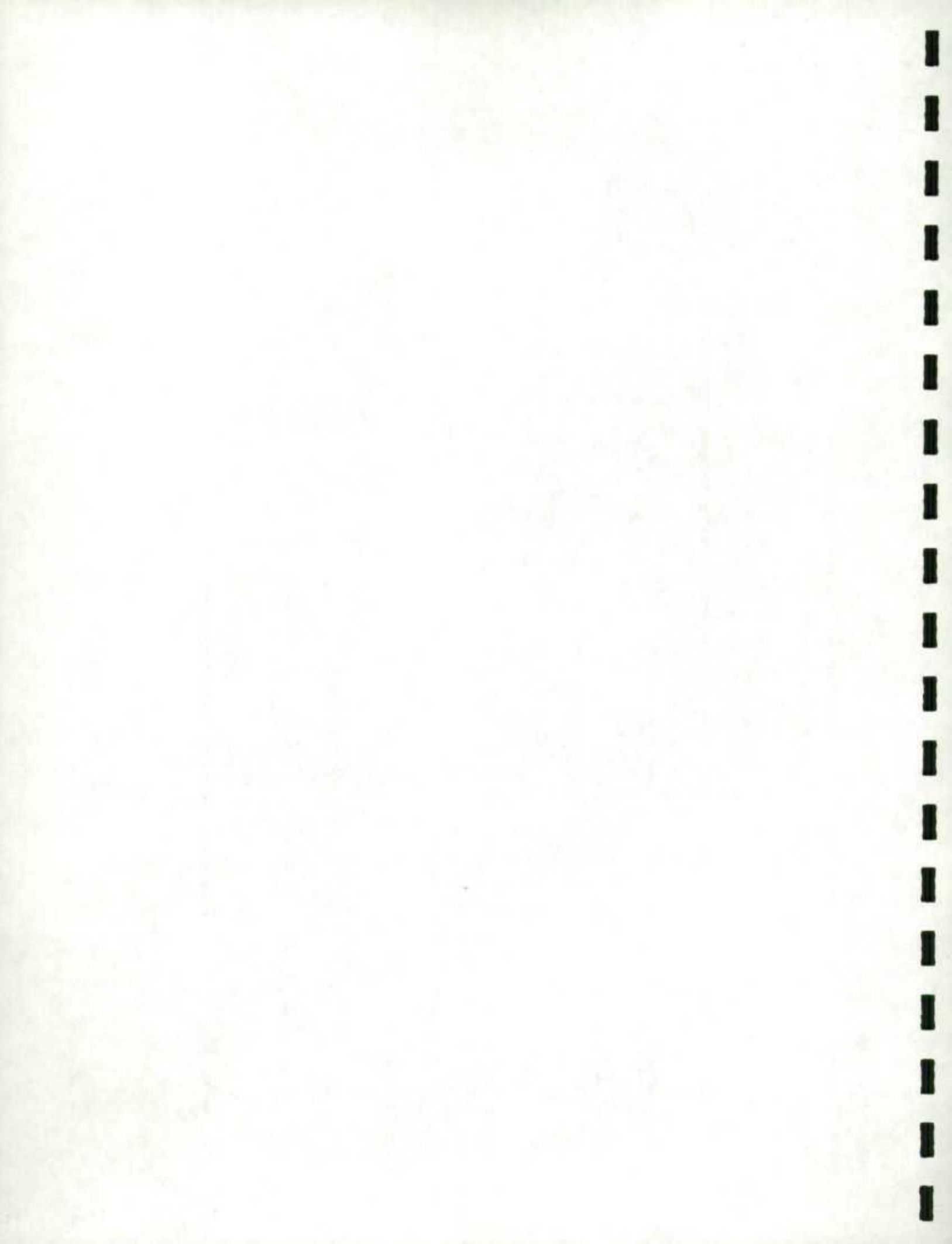


11. RECORD DESCRIPTION



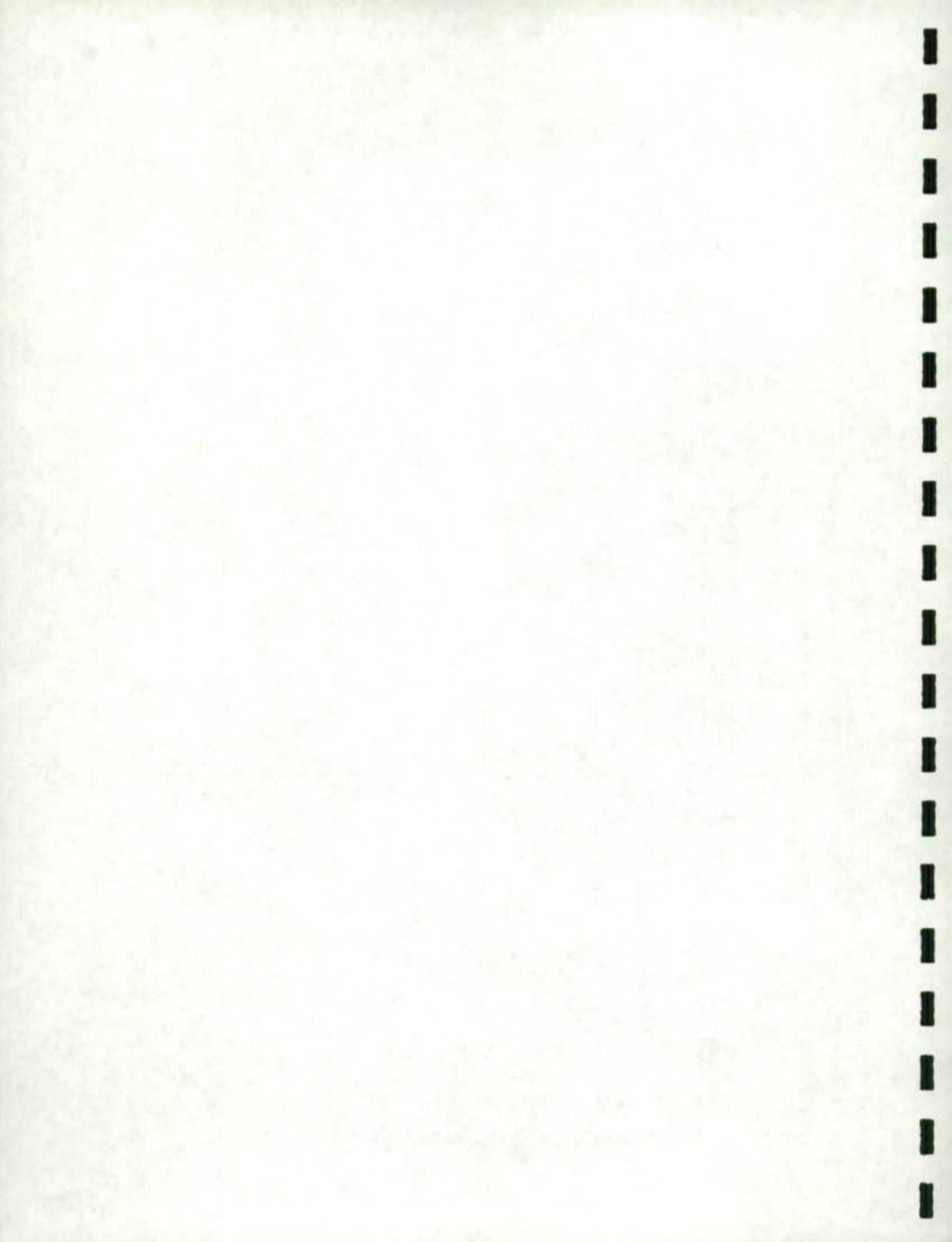
AUTOMATIC RECORD LAYOUT

| 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<br>01 AREA 1<br>02 AREA 2<br>03 AREA 3                                                                                           |      |   |
| 4     | FILLER   | 1      | 0013      | FILLER                                                                                                                                               |      |   |
| 5     | MARSTAT  | 1      | 0014      | MARITAL STATUS<br>1 MARRIED<br>2 SINGLE<br>3 OTHER                                                                                                   |      |   |
| 6     | RELHD    | 1      | 0015      | RELATIONSHIP TO HEAD OF FAMILY<br>1 HEAD<br>2 SPOUSE<br>3 SON-DAUGHTER<br>4 PARENT (IN-LAW)<br>5 SON-DAUGHTER (IN-LAW)<br>6 OTHER RELATIVE           |      |   |
| 7     | AGE      | 1      | 0016      | AGE GROUP<br>1 15-24 YEARS<br>2 25-44 YEARS<br>3 45-64 YEARS<br>4 65 YEARS AND OVER                                                                  |      |   |
| 8     | EDUCER   | 1      | 0017      | EDUCATION<br>1 NONE OR ELEMENTARY<br>2 HIGH SCHOOL (SOME OR COMPLETED)<br>3 SOME POST-SECONDARY<br>4 POST-SECONDARY CERT. OR DIPLOMA<br>5 UNIVERSITY |      |   |
| 9     | ACTIV    | 1      | 0018      | ACTIVITY IN REFERENCE WEEK<br>1 AT WORK<br>2 NOT AT WORK, HAS A JOB<br>3 NOT AT WORK, NO JOB<br>4 PERMANENTLY UNABLE TO WORK                         |      |   |
| 10    | MULTIJOB | 1      | 0019      | MULTIPLE JOB HOLDER<br>1 YES<br>2 NO                                                                                                                 |      |   |



AUTOMATIC RECORD LAYOUT

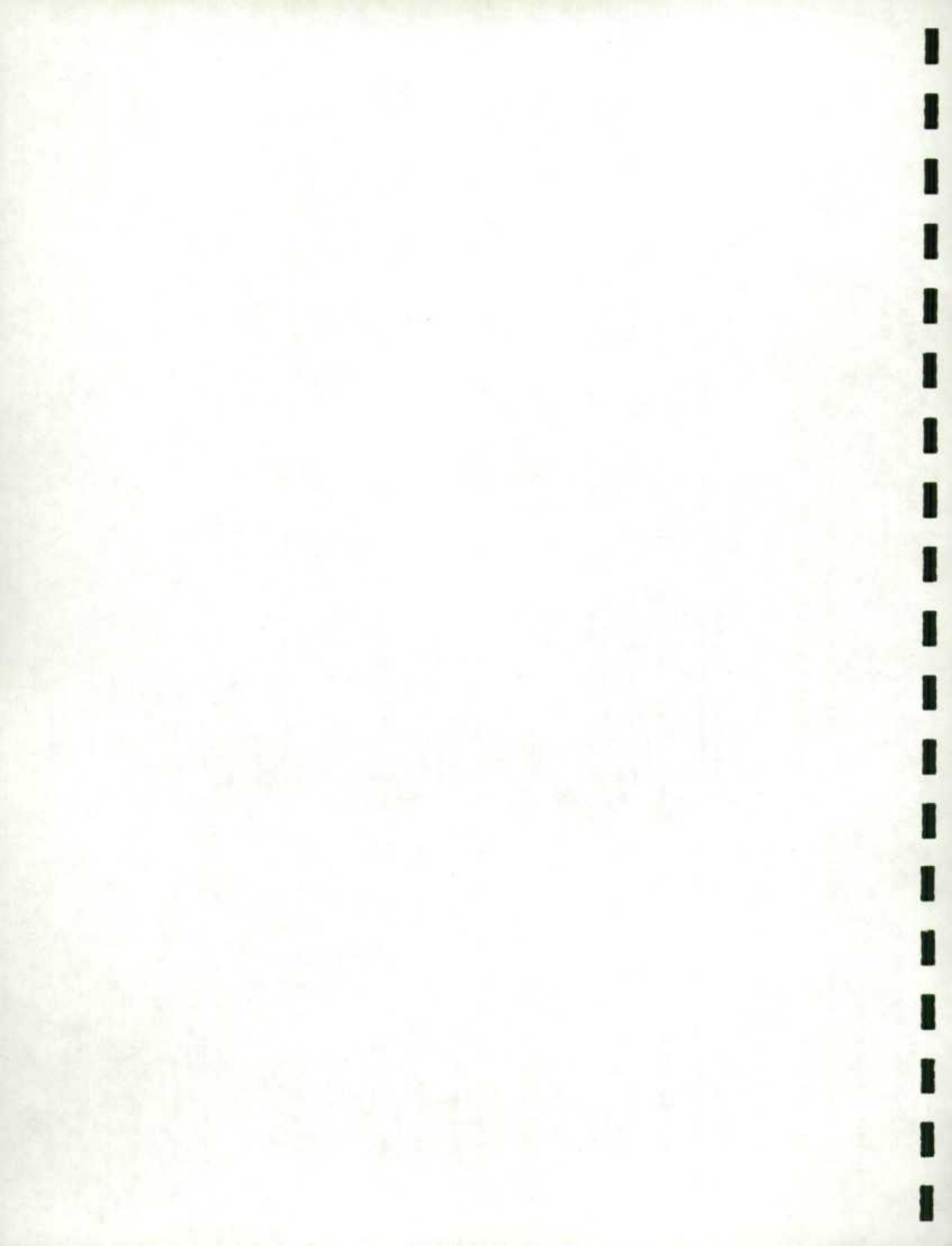
| FIELD | ACRONYM  | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                           | PAGE |
|-------|----------|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 11    | TOTHRSHK | 2      | 0020-0021 | TOTAL USUAL HOURS WORKED<br>00:65                                                                                                                                                            | 2    |
| 12    | WHYPT    | 1      | 0022      | REASON FOR PART-TIME WORK<br>BLANK<br>1 PERSONAL OR FAMILY RESPONSIBILITIES<br>2 GOING TO SCHOOL<br>3 COULD ONLY FIND PART-TIME WORK<br>4 DID NOT WANT FULL-TIME WORK<br>5 OTHER REASONS     |      |
| 13    | EXTRHRS  | 2      | 0023-0024 | EXTRA HOURS WORKED<br>BLANK<br>00:30                                                                                                                                                         |      |
| 14    | HRSLOST  | 2      | 0025-0026 | HOURS LOST<br>BLANK<br>00:41                                                                                                                                                                 |      |
| 15    | WHYLOSS  | 1      | 0027      | REASONS FOR TIME LOSS<br>BLANK<br>1 ILLNESS OR DISIBLITY OR PERSONAL<br>2 BAD WEATHER<br>3 LABOUR DISPUTE<br>4 LAYOFF<br>5 LOST JOB/NEW JOB<br>6 VACATION<br>7 WORKING SHORT-TIME<br>8 OTHER |      |
| 16    | STARTJOB | 2      | 0028-0029 | WEEKS UNTIL NEW JOB STARTS<br>BLANK<br>00:13                                                                                                                                                 |      |
| 17    | HRSWRKED | 2      | 0030-0031 | TOTAL ACTUAL HOURS WORKED<br>BLANK<br>00:65                                                                                                                                                  |      |
| 18    | PAIDOFF  | 1      | 0032      | WAGES OR SALARY FOR TIME OFF<br>BLANK<br>1 YES<br>2 NO                                                                                                                                       |      |
| 19    | WKSOFF   | 2      | 0033-0034 | WEEKS OF CONTINUOUS ABSENCE<br>BLANK<br>00:18                                                                                                                                                |      |





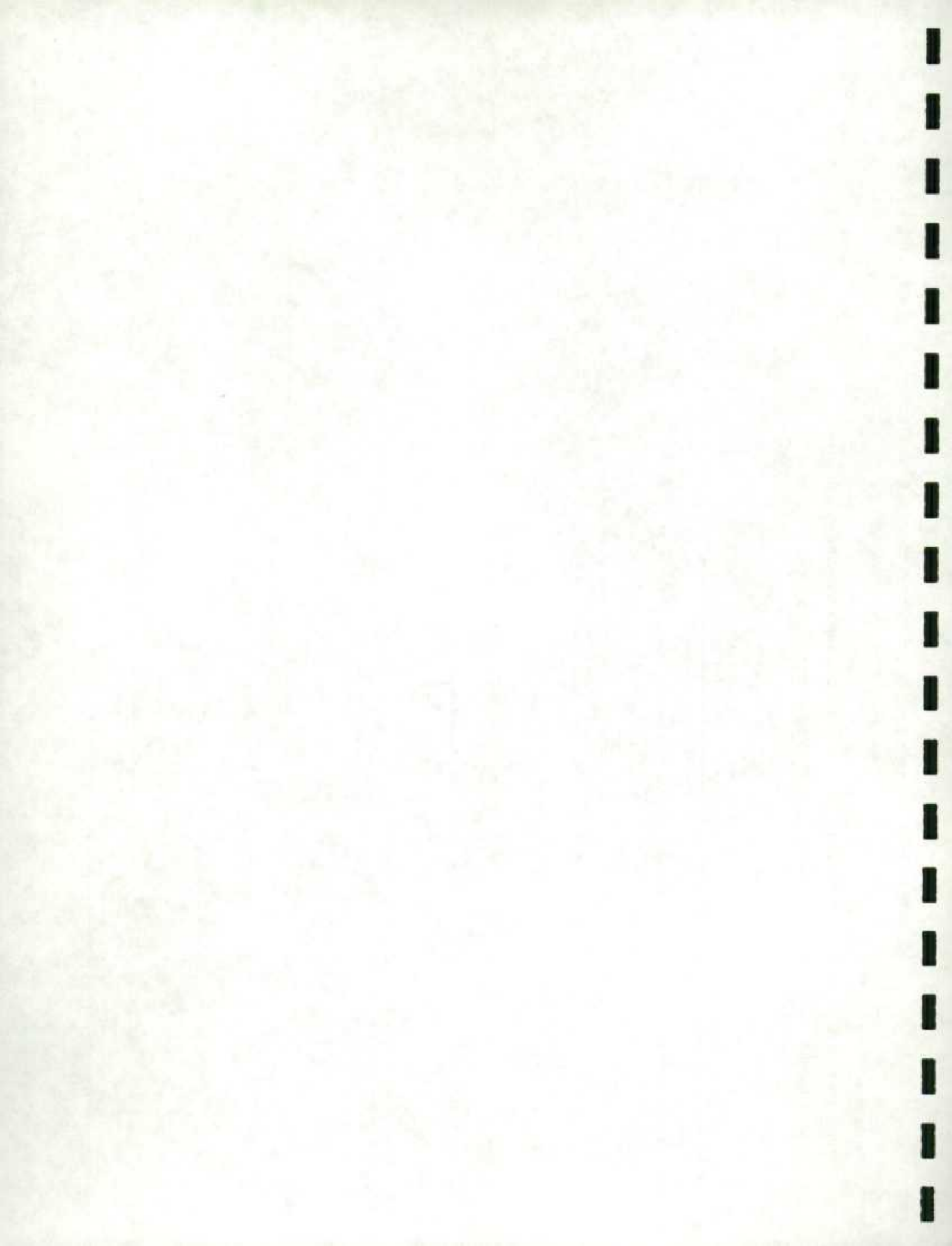
AUTOMATIC RECORD LAYOUT

| FIELD | ACRONYM  | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                                               | PAGE | 3 |
|-------|----------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|
| 20    | LOOKED6M | 1      | 0035      | LOOKED FOR WORK IN PAST SIX MONTHS<br>BLANK<br>1 YES<br>2 NO<br>3 N/A                                                                                                                                                                            |      |   |
| 21    | LOOKED4W | 1      | 0036      | LOOKED FOR WORK IN PAST FOUR WEEKS<br>1 YES<br>2 NO                                                                                                                                                                                              |      |   |
| 22    | HOWLOOK1 | 1      | 0037      | METHODS USED: CONTACTED EMPLOYERS<br>BLANK<br>1 YES<br>2 NO                                                                                                                                                                                      |      |   |
| 23    | HOWLOOK2 | 1      | 0038      | METHODS USED: USED PUBLIC EMPLOYMENT AGENCY<br>BLANK<br>1 YES<br>2 NO                                                                                                                                                                            |      |   |
| 24    | HOWLOOK3 | 1      | 0039      | METHODS USED: LOOKED AT ADS<br>BLANK<br>1 YES<br>2 NO                                                                                                                                                                                            |      |   |
| 25    | HOWLOOK4 | 1      | 0040      | METHODS USED: USED OTHER METHODS<br>BLANK<br>1 YES<br>2 NO                                                                                                                                                                                       |      |   |
| 26    | LOOKING  | 2      | 0041-0042 | WEEKS LOOKING FOR WORK<br>BLANK<br>01:39                                                                                                                                                                                                         |      |   |
| 27    | WHYLEAVE | 1      | 0043      | REASON FOR LEAVING LAST JOB<br>BLANK<br>1 ILLNESS OR DISABILITY<br>2 PERSONAL OR FAMILY RESPONSIBILITIES<br>3 GOING TO SCHOOL<br>4 LOST JOB OR LAID OFF<br>5 RETIRED<br>6 OTHER REASONS<br>7 LAST WORKED MORE THAN 5 YEARS AGO<br>8 NEVER WORKED |      |   |
| 28    | DOBEFORE | 1      | 0044      | ACTIVITY BEFORE STARTED LOOKING FOR WORK<br>BLANK<br>1 WORKING<br>2 KEEPING HOUSE<br>3 SCHOOL                                                                                                                                                    |      |   |



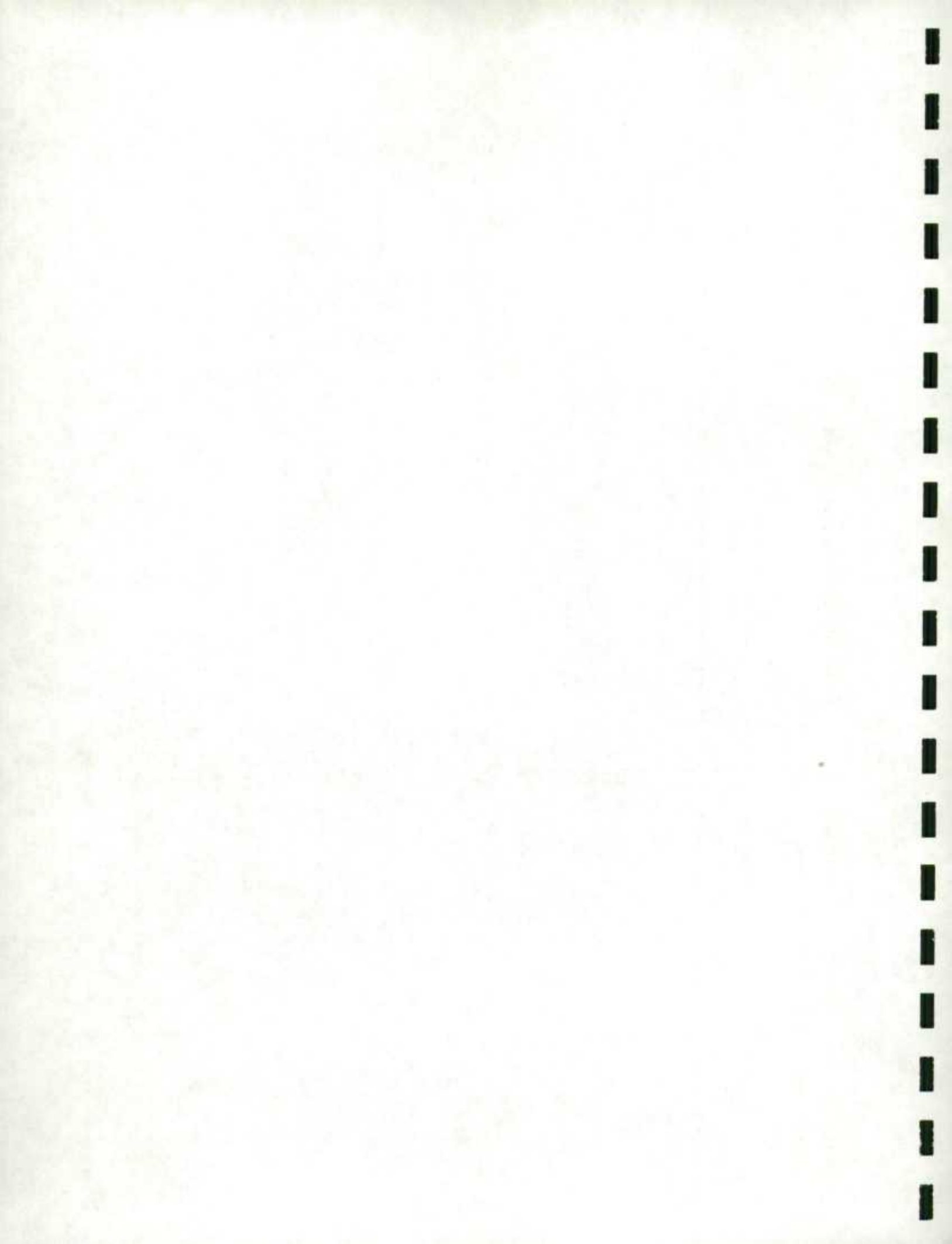
AUTOMATIC RECORD LAYOUT

| FIELD | ACRONYM  | LENGTH | POSITION | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                                          |
|-------|----------|--------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28    | DOBEFORE | 1      | 0044     | ACTIVITY BEFORE STARTED LOOKING FOR WORK<br>4 OTHER                                                                                                                                                                                         |
| 29    | HRKSGHT  | 1      | 0045     | TYPE OF WORK SOUGHT<br>BLANK<br>1 FULL-TIME, PERMANENT<br>2 FULL-TIME, TEMPORARY<br>3 PART-TIME, PERMANENT<br>4 PART-TIME, TEMPORARY                                                                                                        |
| 30    | WHYNOTLK | 1      | 0046     | REASON FOR NOT LOOKING IN REFERENCE WEEK<br>BLANK<br>1 ILLNESS OR PERSONAL RESPONSIBILITIES<br>2 AT SCHOOL<br>3 NO LONGER INTERESTED OR FOUND JOB<br>4 AWAITING RECALL OR REPLY<br>5 BELIEVES NO WORK AVAILABLE<br>6 OTHER REASONS          |
| 31    | AVAILMRK | 1      | 0047     | AVAILABILITY FOR WORK<br>BLANK<br>1 NOT AVAILABLE; GOING TO SCHOOL<br>2 NOT AVAILABLE; OTHER REASONS<br>3 AVAILABLE                                                                                                                         |
| 32    | INSCHOOL | 1      | 0048     | SCHOOL ENROLMENT<br>BLANK<br>1 NOT ENROLLED<br>2 PRIMARY OR SECONDARY<br>3 UNIVERSITY, FULL-TIME<br>4 UNIVERSITY, PART-TIME<br>5 COMMUNITY COLLEGE, FULL-TIME<br>6 COMMUNITY COLLEGE, PART-TIME<br>7 OTHER, FULL-TIME<br>8 OTHER, PART-TIME |
| 33    | FILLER   | 1      | 0049     | FILLER                                                                                                                                                                                                                                      |
| 34    | TYPJOB   | 1      | 0050     | TYPE OF JOB (PRESENT OR PREVIOUS)<br>1 FULL-TIME<br>2 PART-TIME<br>3 N/A                                                                                                                                                                    |
| 35    | LFSTATUS | 1      | 0051     | LABOUR FORCE STATUS<br>1 EMPLOYED<br>2 UNEMPLOYED<br>3 NOT IN LABOUR FORCE                                                                                                                                                                  |



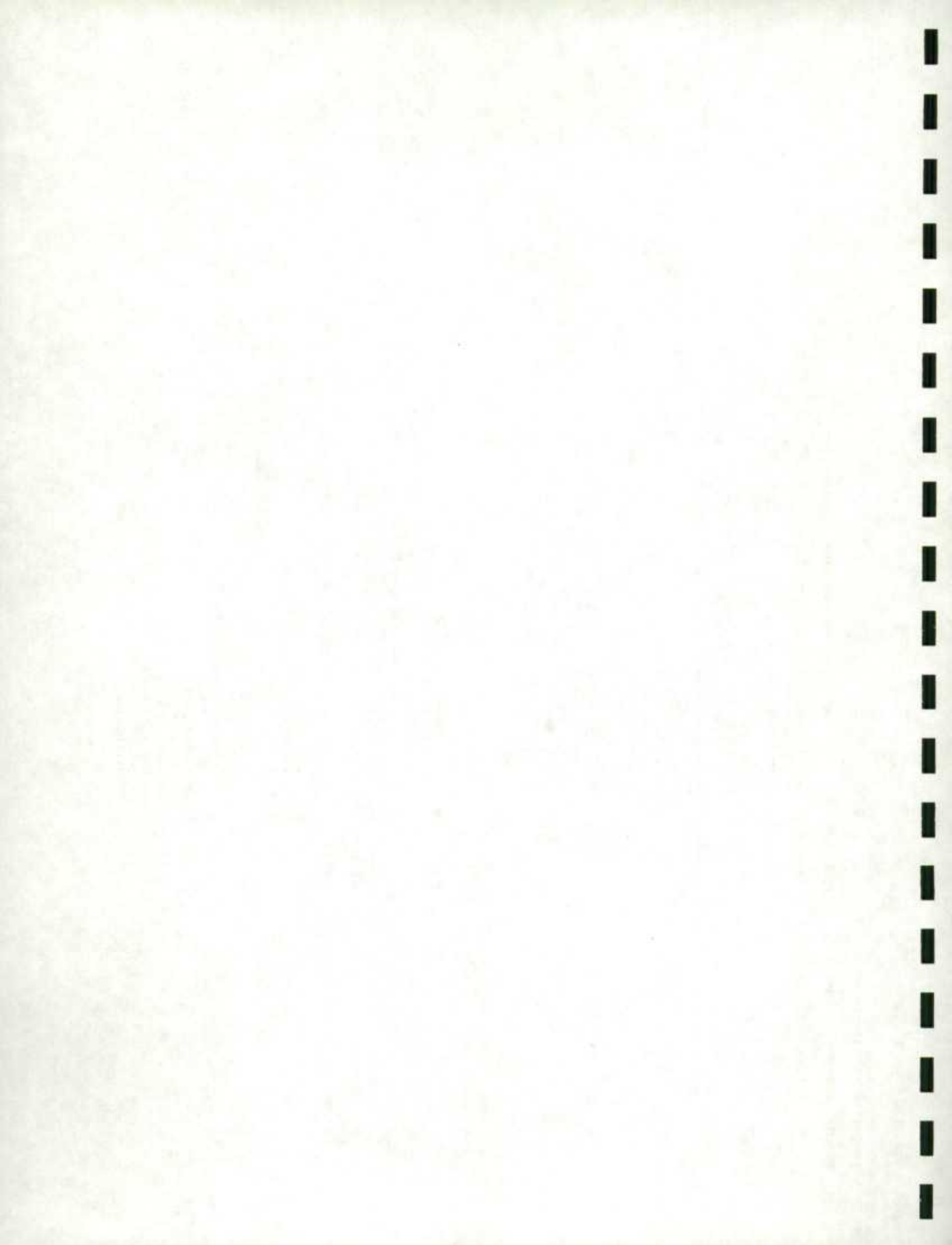
AUTOMATIC RECORD LAYOUT

| FIELD | ACRONYM  | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                                                                                                                                                                                                                                   | PAGE | 5 |
|-------|----------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|
| 36    | CLSHKER  | 1      | 0052      | CLASS OF WORKER<br>1 PAID<br>2 OTHER                                                                                                                                                                                                                                                                                                                                                                                                 |      |   |
| 37    | IND      | 2      | 0053-0054 | INDUSTRY<br>01 AGRICULTURE<br>02 OTHER PRIMARY<br>03 MANUFACTURING, NON-DURABLES<br>04 MANUFACTURING, DURABLES<br>05 CONSTRUCTION<br>06 TRANSPORTATION, ETC.<br>07 WHOLESALE TRADE<br>08 RETAIL TRADE<br>09 FINANCE, ETC.<br>10 COMMUNITY SERVICES<br>11 PERSONAL SERVICES<br>12 BUSINESS AND MISC. SERVICES<br>13 PUBLIC ADMINISTRATION<br>14 NEVER WORKED<br>15 LAST WORKED MORE THAN 5 YEARS AGD<br>16 PERMANENTLY UNABLE TO WORK |      |   |
| 38    | OCC      | 2      | 0055-0056 | OCCUPATION<br>01 MANAGERIAL<br>02 PROFESSIONAL<br>03 TEACHING<br>04 MEDICINE<br>05 CLERICAL<br>06 SALES<br>07 SERVICES<br>08 PRIMARY OCCUPATIONS<br>09 MINING, PROCESSING, MACHINING<br>10 FABRICATION<br>11 CONSTRUCTION<br>12 TRANSPORTATION, MATERIALS HANDLING,<br>OTHER CRAFTS<br>13 NEVER WORKED BEFORE<br>14 LAST WORKED MORE THAN 5 YEARS AGO, OR<br>PERMANENTLY UNABLE TO WORK                                              |      |   |
| 39    | DURUNEMP | 2      | 0057-0058 | DURATION OF UNEMPLOYMENT<br>BLANK<br>00:53                                                                                                                                                                                                                                                                                                                                                                                           |      |   |
| 40    | TENURE   | 1      | 0059      | JOB TENURE<br>BLANK<br>1 1-6 MONTHS<br>2 7-12 MONTHS<br>3 1-5 YEARS<br>4 6-10 YEARS                                                                                                                                                                                                                                                                                                                                                  |      |   |



AUTOMATIC RECORD LAYOUT

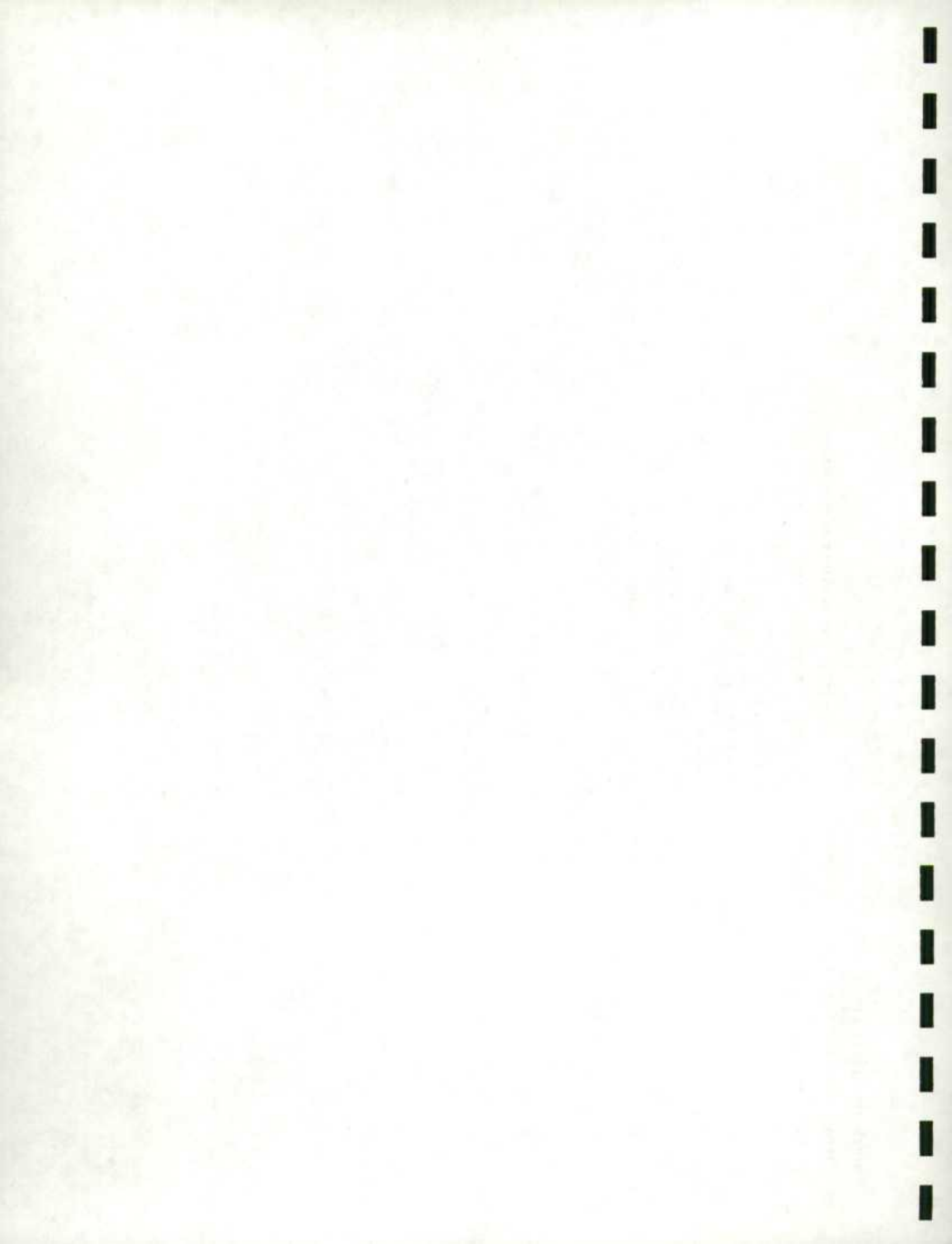
| FIELD | ACRONYM  | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                          | PAGE 6          |
|-------|----------|--------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 40    | TENURE   | 1      | 0059      | JOB TENURE<br>5 11-20 YEARS<br>6 OVER 20 YEARS                                                                                                                                                                              | ** CONTINUED ** |
| 41    | DURNOJOB | 1      | 0060      | DURATION OF JOBLESSNESS<br>BLANK<br>1 0-1 MONTH<br>2 1-3 MONTHS<br>3 4-6 MONTHS<br>4 7-12 MONTHS<br>5 13-24 MONTHS<br>6 2-5 YEARS<br>7 6-10 YEARS<br>8 OVER 10 YEARS                                                        |                 |
| 42    | DURLSTNK | 1      | 0061      | DURATION OF PREVIOUS JOB<br>BLANK<br>1 NEVER WORKED<br>2 1-3 MONTHS<br>3 4-6 MONTHS<br>4 7-12 MONTHS<br>5 1-5 YEARS<br>6 OVER 5 YEARS                                                                                       |                 |
| 43    | FLOWS    | 1      | 0062      | FLOWS INTO UNEMPLOYMENT<br>BLANK<br>1 JOB LOSERS<br>2 JOB LEAVERS<br>3 NEW ENTRANTS<br>4 RE-ENTRANTS-ONE YEAR OR LESS<br>5 RE-ENTRANTS-GREATER THAN 1 YEAR                                                                  |                 |
| 44    | FILLER   | 33     | 0063-0095 | FILLER                                                                                                                                                                                                                      |                 |
| 45    | Q10      | 1      | 0096      | IS ... A REGISTERED APPRENTICE IN ALBERTA?<br>1 YES<br>2 NO<br>0 NOT STATED<br>BLANK                                                                                                                                        |                 |
| 46    | Q11      | 2      | 0097-0098 | IN WHICH TRADE IS ... TAKING HIS/HER APPRENTISHIP?<br>01 CONSTRUCTION TRADE<br>02 ELECTRICAL TRADE<br>03 INDUSTRIAL TRADE<br>04 MECHANICAL TRADE<br>05 METAL TRADE<br>06 PIPING TRADE<br>07 SERVICE TRADE<br>08 OTHER TRADE |                 |





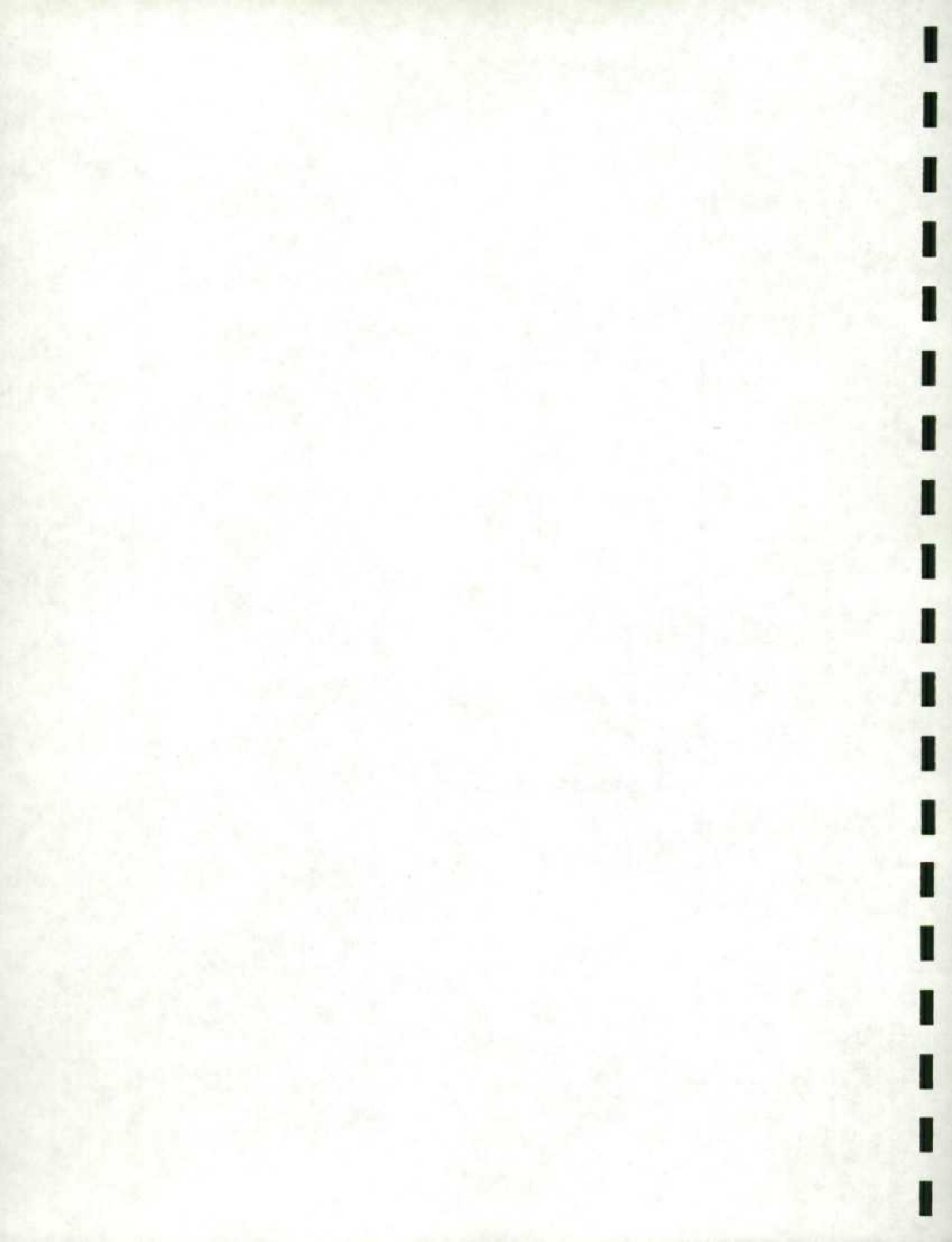
AUTOMATIC RECORD LAYOUT

| FIELD | ACRONYM | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PAGE 7          |
|-------|---------|--------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 46    | Q11     | 2      | 0097-0098 | IN WHICH TRADE IS ... TAKING HIS/HER<br>APPRENTISHIP?<br>09 NOT STATED<br>00 NOT APPLICABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ** CONTINUED ** |
| 47    | Q12     | 1      | 0099      | LAST WEEK DID ... WORK IN A "HANDS-ON"<br>CAPACITY IN THIS TRADE?<br>3 YES<br>4 NO<br>0 NOT STATED<br>BLANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |
| 48    | Q13     | 1      | 0100      | IS ... A JOURNEYMAN WITH AN ALBERTA TRADE<br>CERTIFICATE?<br>5 YES<br>6 NO<br>0 NOT STATED<br>BLANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |
| 49    | Q14     | 2      | 0101-0102 | IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE<br>CERTIFICATE?<br>01 AGRICULTURAL MECHANIC<br>02 APPLIANCE SERVICEMAN<br>03 AUTO BODY MECHANIC<br>04 BAKER<br>05 BARBER<br>06 BEAUTICIAN<br>07 BOILERMAKER<br>08 BRICKLAYER<br>09 CABINETMAKER<br>10 CARPENTER<br>11 CEMENT FINISHER<br>12 COMMUNICATION ELECTRICIAN<br>13 COOK<br>14 ELECTRICAL REWIND MECHANIC<br>15 ELECTRICIAN<br>16 ELECTRONIC TECHNICIAN<br>17 ELEVATOR CONSTRUCTOR<br>18 FLOORCOVERING MECHANIC<br>19 GASFITTER<br>20 GLASSWORKER<br>21 HEAVY DUTY MECHANIC<br>22 HEAVY EQUIPMENT OPERATOR<br>23 INSTRUMENT MECHANIC<br>24 INSULATOR<br>25 IRONWORKER<br>26 LANDSCAPE GARDENER<br>27 LATHER-INTERIOR SYSTEMS MECHANIC<br>28 MACHINIST<br>29 MILLWRIGHT |                 |



AUTOMATIC RECORD LAYOUT

| FIELD | ACRONYM | LENGTH | POSITION  | QUESTION AND VARIABLE DESCRIPTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PAGE            |
|-------|---------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 49    | Q14     | 2      | 0101-0102 | IN WHICH TRADE DOES ... HOLD AN ALBERTA TRADE<br>CERTIFICATE?<br>30 MOTORCYCLE MECHANIC<br>31 MOTOR MECHANIC<br>32 PAINTER AND DECORATOR<br>33 PARTSMAN<br>34 PLASTERER<br>35 PLUMBER<br>36 POWER LINEMAN<br>37 POWER SYSTEM ELECTRICIAN<br>38 PRINTING AND GRAPHIC ARTS CRAFTSMAN<br>39 RECREATION VEHICLE MECHANIC<br>40 REFRIGERATION MECHANIC<br>41 ROOFER<br>42 SAWFILER<br>43 SHEET METAL MECHANIC<br>44 SPRINKLER FITTER<br>45 STEAMFITTER-PIPEFITTER<br>46 STEEL FABRICATOR<br>47 TILESETTER<br>48 TOOL AND DIE MAKER<br>49 TRANSPORT REFRIGERATION MECHANIC<br>50 WATER WELL DRILLER<br>51 WELDER<br>52 OTHER TRADE<br>00 NOT STATED<br>53 NOT APPLICABLE | 8               |
|       |         |        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ** CONTINUED ** |
| 50    | Q15     | 1      | 0103      | LAST WEEK, DID ... WORK IN A "HANDS-ON" CAPACITY<br>APACITY IN THIS TRADE?<br>7 YES<br>8 NO<br>0 NOT STATED<br>BLANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |
| 51    | Q16     | 1      | 0104      | HAS ... WORKED IN A "HANDS-ON" CAPACITY IN<br>THIS TRADE AT ANY TIME IN THE PAST 12 MONTHS?<br>1 YES<br>2 NO<br>0 NOT STATED<br>BLANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |
| 52    | APPWGHT | 9      | 0105-0113 | APP WEIGHT (NNNNN.NNNN)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |



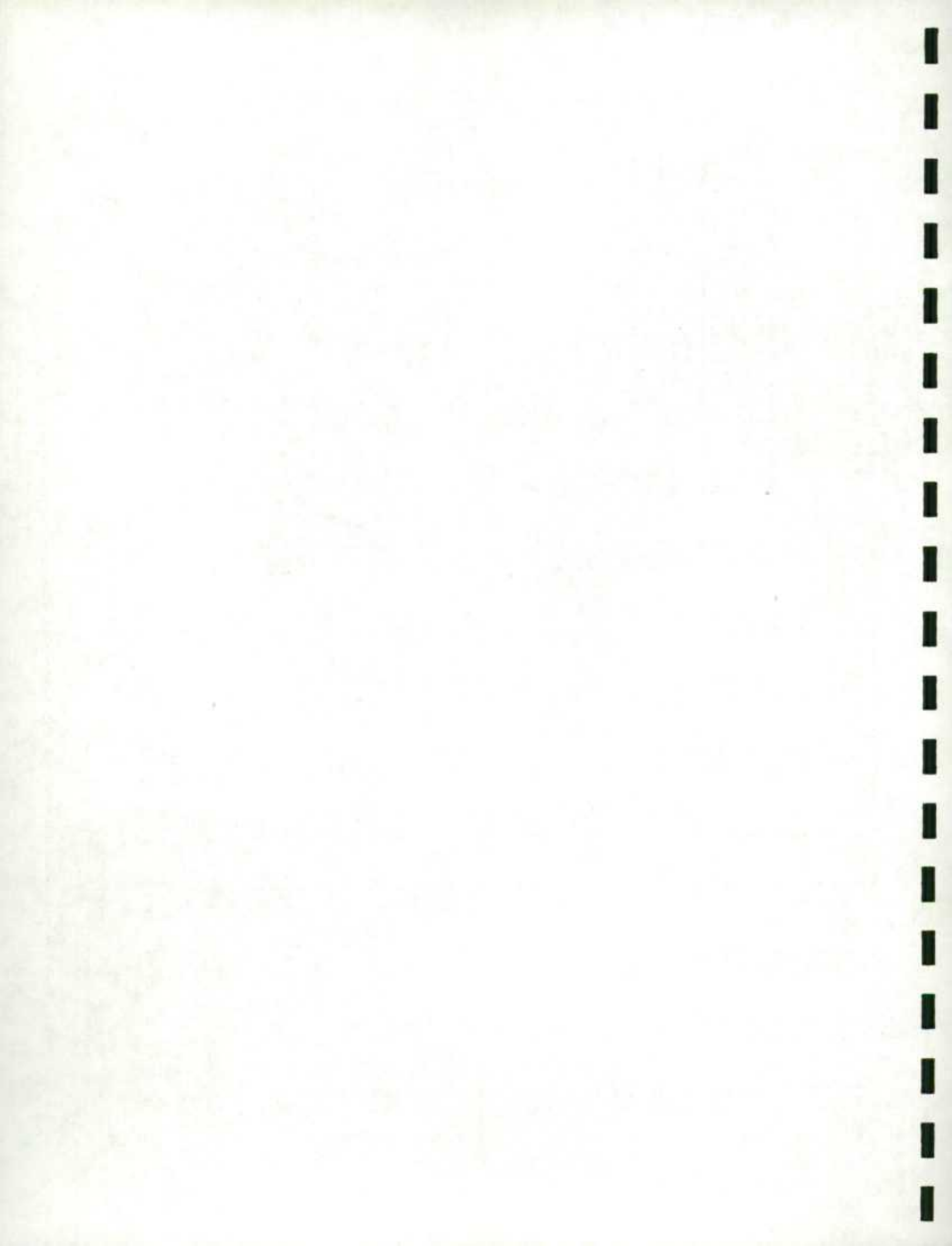
CRUDE SAMPLING VARIABILITY TABLES FOR SURVEY OF APPRENTICES AND JOURNEYMEN IN ALBERTA - OCT 1988

JOURNEYMEN

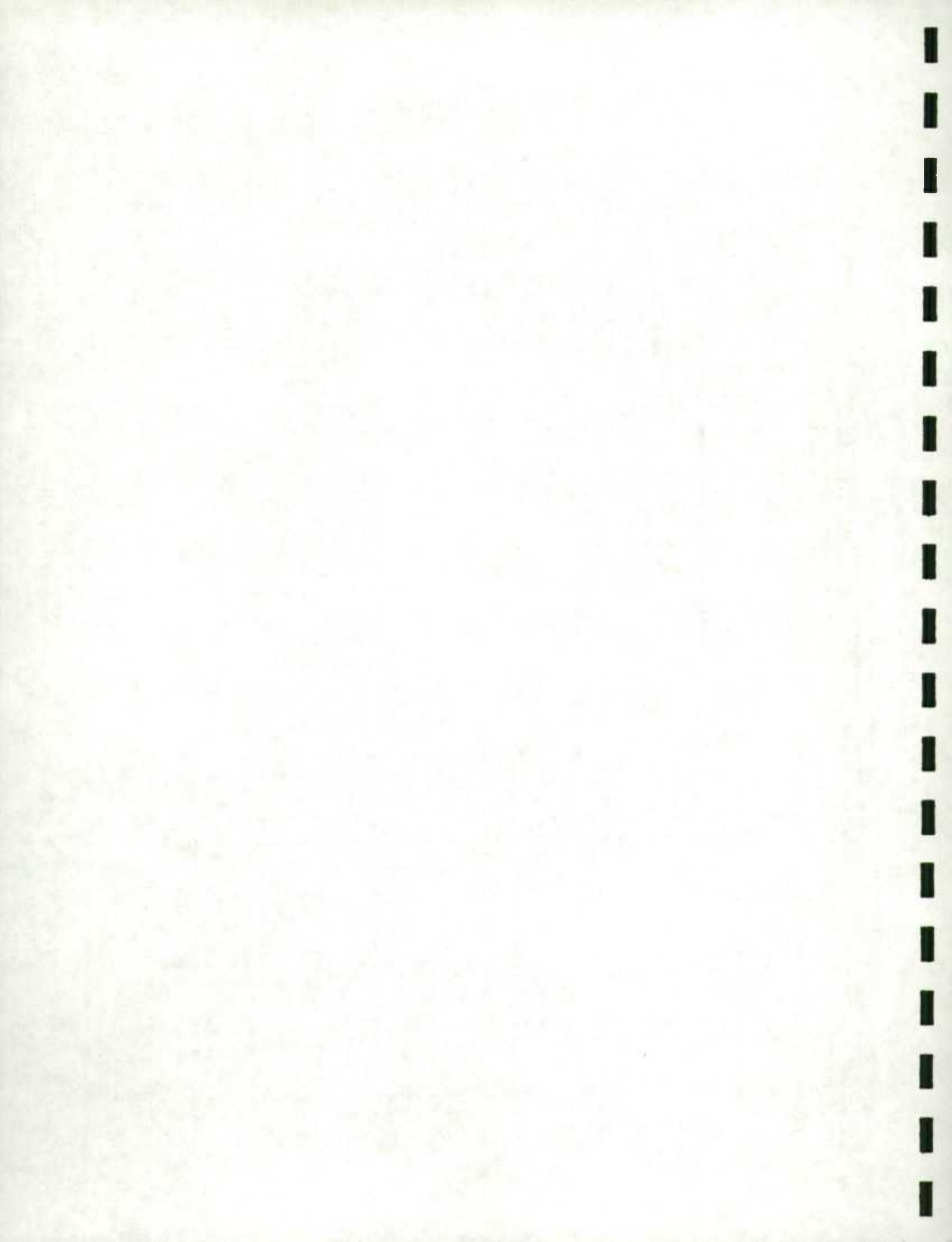
NUMERATOR OF  
PERCENTAGE  
( '000)

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  | 48.8  | 48.5  | 47.8  | 46.5  | 45.2  | 43.9  | 42.5  | 41.0  | 39.5  | 38.0  | 34.7  | 26.9  | 15.5  |
| 2    | ***** | 34.5  | 34.3  | 33.8  | 32.9  | 32.0  | 31.0  | 30.0  | 29.0  | 28.0  | 26.9  | 24.5  | 19.0  | 11.0  |
| 3    | ***** | 28.2  | 28.0  | 27.6  | 26.9  | 26.1  | 25.3  | 24.5  | 23.7  | 22.8  | 21.9  | 20.0  | 15.5  | 9.0   |
| 4    | ***** | 24.4  | 24.3  | 23.9  | 23.3  | 22.6  | 21.9  | 21.2  | 20.5  | 19.8  | 19.0  | 17.3  | 13.4  | 7.8   |
| 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  | 18.5  | 17.9  | 17.3  | 16.7  | 16.1  | 15.5  | 14.2  | 11.0  | 6.3   |
| 7    | ***** | 18.4  | 18.3  | 18.1  | 17.6  | 17.1  | 16.6  | 16.1  | 15.5  | 14.9  | 14.4  | 13.1  | 10.2  | 5.9   |
| 8    | ***** | 17.2  | 17.2  | 16.9  | 16.4  | 16.0  | 15.5  | 15.0  | 14.5  | 14.0  | 13.4  | 12.3  | 9.5   | 5.5   |
| 9    | ***** | 16.3  | 16.2  | 15.9  | 15.5  | 15.1  | 14.6  | 14.2  | 13.7  | 13.2  | 12.7  | 11.6  | 9.0   | 5.2   |
| 10   | ***** | 15.4  | 15.4  | 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  | 11.5  | 10.5  | 8.1   | 4.7   |
| 12   | ***** | 14.1  | 14.0  | 13.8  | 13.4  | 13.1  | 12.7  | 12.3  | 11.8  | 11.4  | 11.0  | 10.0  | 7.8   | 4.5   |
| 13   | ***** | 13.5  | 13.5  | 13.3  | 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  | 10.2  | 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   | 9.0   | 6.9   | 4.0   |
| 16   | ***** | ***** | 12.1  | 11.9  | 11.6  | 11.3  | 11.0  | 10.6  | 10.3  | 9.9   | 9.5   | 8.7   | 6.7   | 3.9   |
| 17   | ***** | ***** | 11.8  | 11.6  | 11.3  | 11.0  | 10.6  | 10.3  | 10.0  | 9.6   | 9.2   | 8.4   | 6.5   | 3.8   |
| 18   | ***** | ***** | 11.4  | 11.3  | 11.0  | 10.7  | 10.3  | 10.0  | 9.7   | 9.3   | 9.0   | 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   | 8.0   | 6.2   | 3.6   |
| 20   | ***** | ***** | 10.9  | 10.7  | 10.4  | 10.1  | 9.8   | 9.5   | 9.2   | 8.8   | 8.5   | 7.8   | 6.0   | 3.5   |
| 21   | ***** | ***** | 10.6  | 10.4  | 10.2  | 9.9   | 9.6   | 9.3   | 9.0   | 8.6   | 8.3   | 7.6   | 5.9   | 3.4   |
| 22   | ***** | ***** | 10.3  | 10.2  | 9.9   | 9.6   | 9.4   | 9.1   | 8.7   | 8.4   | 8.1   | 7.4   | 5.7   | 3.3   |
| 23   | ***** | ***** | 10.1  | 10.0  | 9.7   | 9.4   | 9.1   | 8.9   | 8.6   | 8.2   | 7.9   | 7.2   | 5.6   | 3.2   |
| 24   | ***** | ***** | 9.9   | 9.8   | 9.5   | 9.2   | 9.0   | 8.7   | 8.4   | 8.1   | 7.8   | 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   | 8.3   | 8.0   | 7.8   | 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   | 7.4   | 7.1   | 6.9   | 6.7   | 6.5   | 6.3   | 6.0   | 5.5   | 4.2   | 2.5   |
| 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  | ***** | ***** | ***** | ***** | 4.7   | 4.5   | 4.4   | 4.2   | 4.1   | 4.0   | 3.8   | 3.5   | 2.7   | 1.6   |
| 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   | 2.5   | 1.9   | 1.1   |
| 250  | ***** | ***** | ***** | ***** | ***** | ***** | 2.8   | 2.7   | 2.6   | 2.5   | 2.4   | 2.2   | 1.7   | 1.0   |
| 300  | ***** | ***** | ***** | ***** | ***** | ***** | 2.5   | 2.5   | 2.4   | 2.3   | 2.2   | 2.0   | 1.6   | 0.9   |
| 350  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.3   | 2.2   | 2.1   | 2.0   | 1.9   | 1.4   | 0.8   |
| 400  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 2.1   | 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   | 1.6   | 1.2   | 0.7   |
| 750  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 1.3   | 1.0   | 0.6   |
| 1000 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | 0.8   | 0.5   |



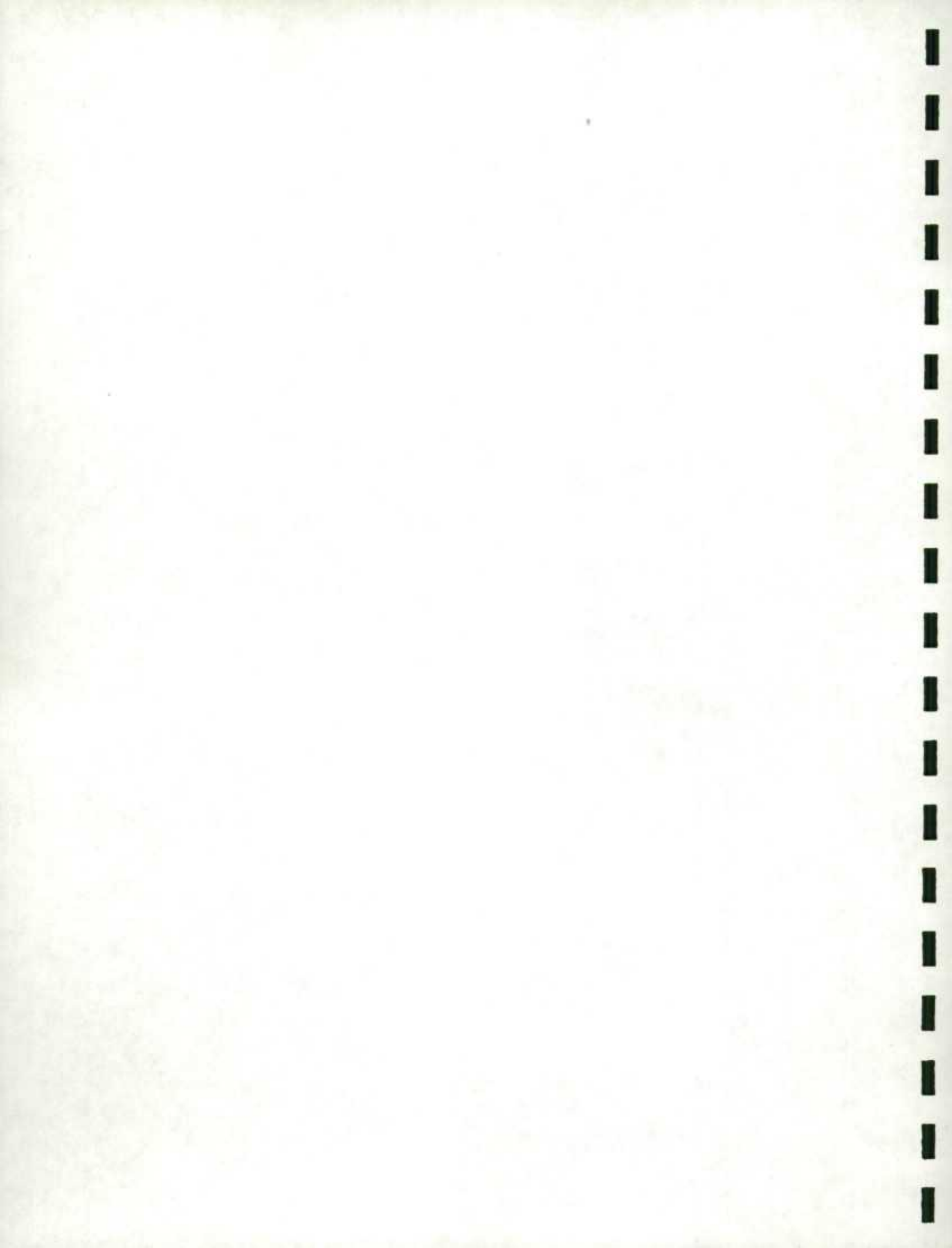




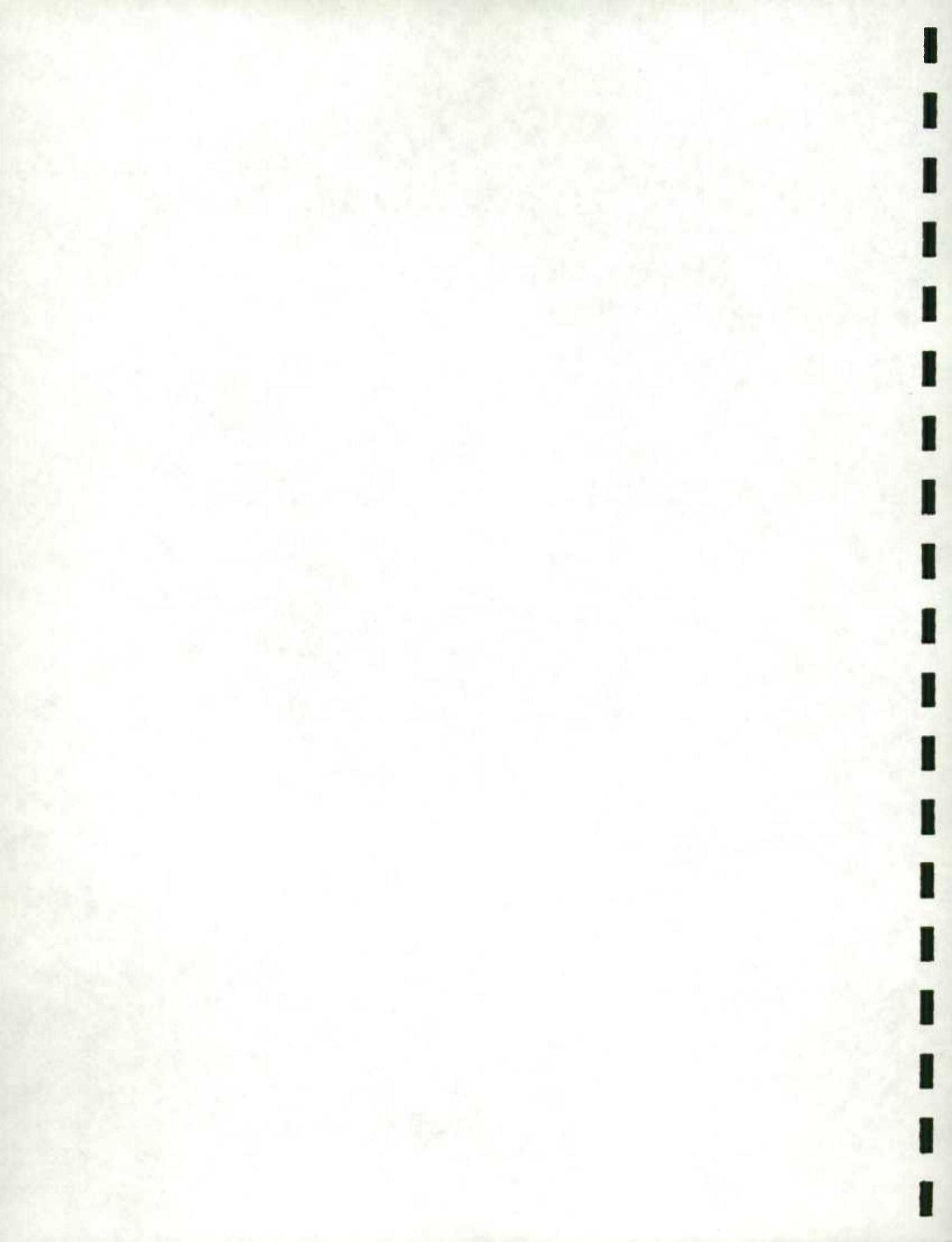


NOTES:

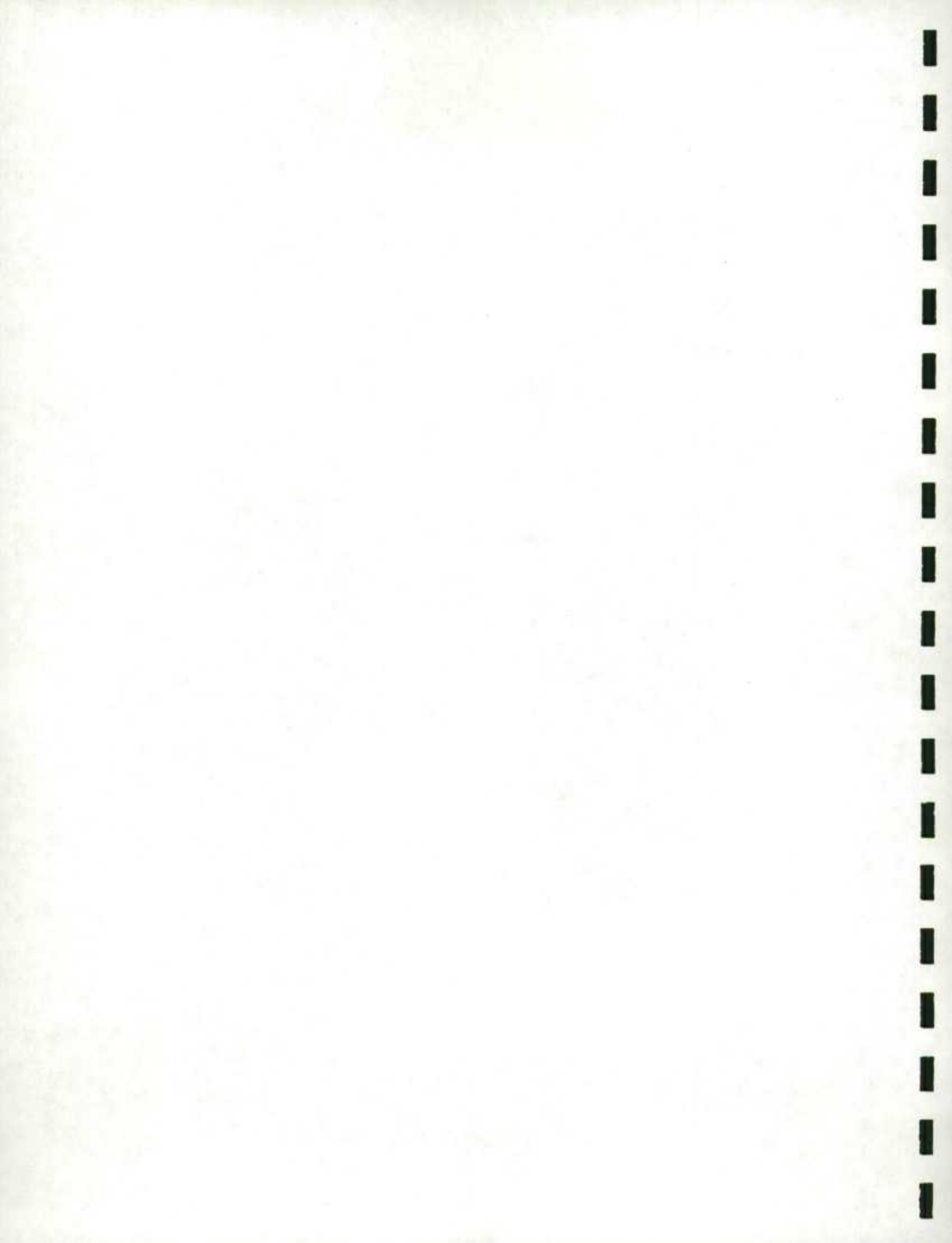
- (1) SAMPLING VARIABILITIES (COEFFICIENTS OF VARIATION) ARE IN PERCENTS. 00610000
- (2) TO DETERMINE SAMPLING VARIABILITIES FOR ESTIMATES OF TOTALS, LOCATE 00620000  
THE ROW CLOSEST TO THE ESTIMATED TOTAL. THE LEFT-MOST COLUMN GIVES 00630000  
THE SAMPLING VARIABILITY. 00640000
- (3) TO DETERMINE SAMPLING VARIABILITIES FOR ESTIMATES OF PERCENTAGES, 00650000  
USE THE ROW CLOSEST TO THE NUMERATOR OF THE PERCENTAGE AND THE 00660000  
COLUMN CLOSEST TO THE PERCENTAGE. 00670000
- (4) SAMPLING VARIABILITIES IN THIS TABLE ARE CRUDE INDICATORS AND IN 00680000  
GENERAL ARE HIGHER THAN THOSE THAT WOULD BE OBTAINED USING MORE 00690000  
EXACT TECHNIQUES. UNDER NO CIRCUMSTANCES ARE THEY OFFICIAL. 00700000



12. SAMPLING VARIABILITY TABLES



13. TECHNICAL SPECIFICATIONS



Dataset Name: Spec.APP8610

Volume Serial Number:----NT

Record Length: 113

Blocksize:

Recording Density: 1600 BPI

Label: Standard IBM

STATISTICS CANADA LIBRARY  
BIBLIOTHEQUE STATISTIQUE CANADA



1010143634