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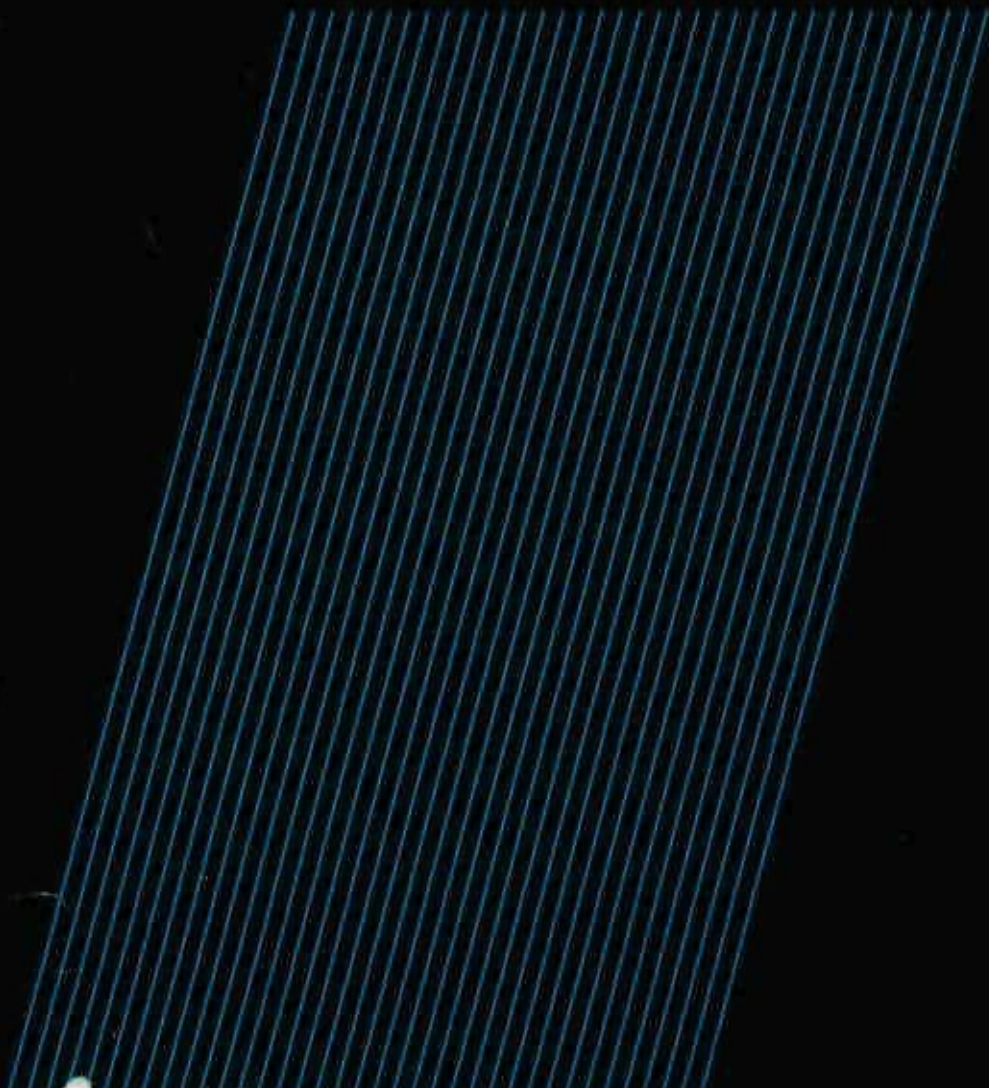
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## Canada 1986

USER'S GUIDE  
TO  
1986 CENSUS DATA  
ON  
INDUSTRY







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Reference

# USER'S GUIDE TO 1986 CENSUS DATA ON INDUSTRY

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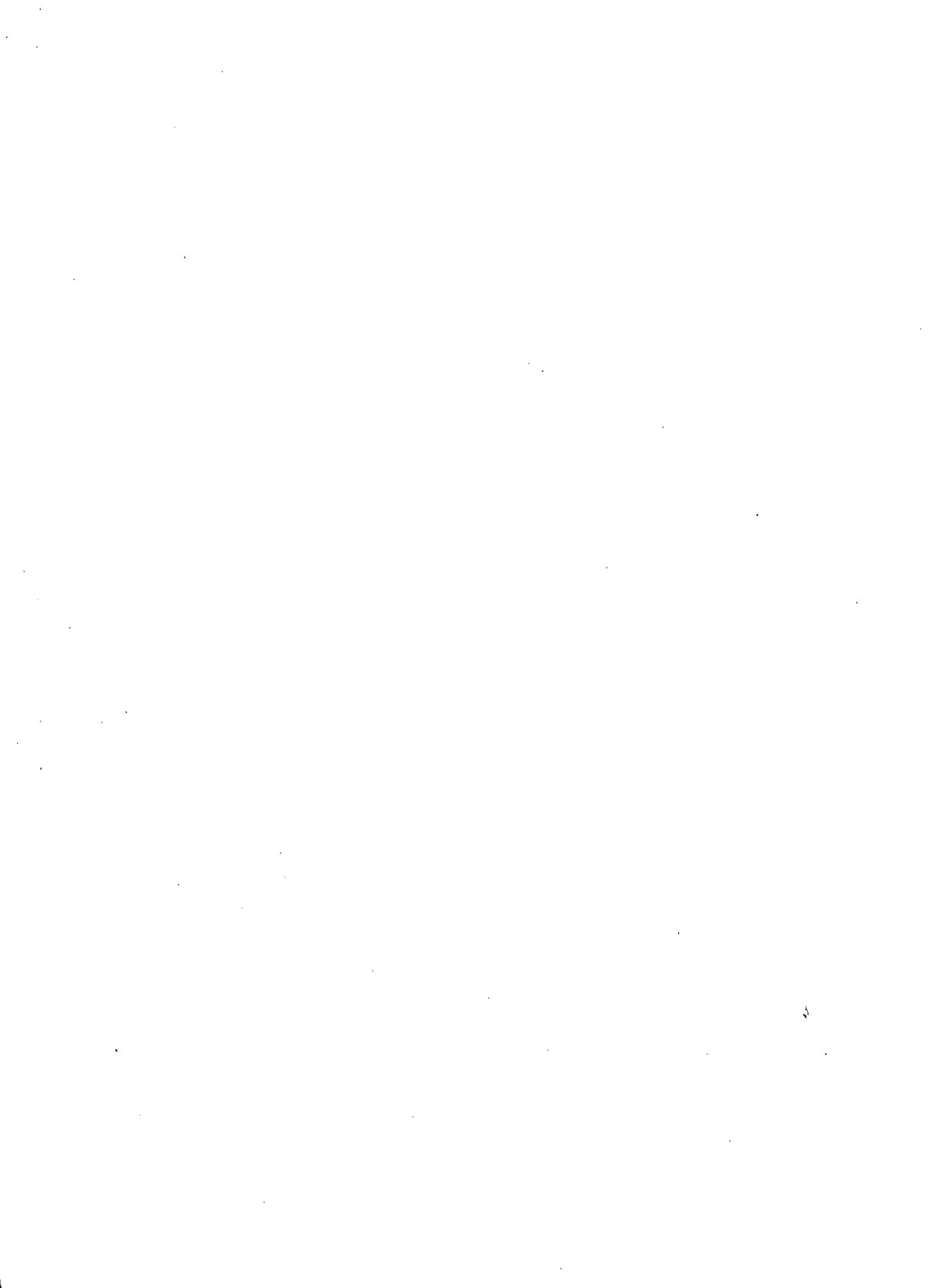


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## I. INTRODUCTION

For purposes of the 1986 Census, there are two industry variables, industry based on the 1980 Standard Industrial Classification (SIC) and industry based on the 1970 SIC.

The standard definition for these variables is:

### **Industry**

Refers to the general nature of the business carried out in the establishment where the person worked, as indicated by the name of the employer and the kind of business, industry or service. Data are available for persons 15 years of age and over, excluding institutional residents. If not employed in the week prior to enumeration, the information relates to the job of longest duration since January 1, 1985. Persons with two or more jobs were to report the information for the job at which they worked the most hours.

Census industry data based on the 1980 Standard Industrial Classification have three levels of aggregation. There are 18 divisions (labelled A to R) which are subdivided into 75 major groups which are, in turn, subdivided into 296 detailed groups.

Census industry data based on the 1970 Standard Industrial Classification also have three levels of aggregation. There are 12 divisions which are subdivided into 55 major groups which are, in turn, subdivided into 286 detailed classes.

After a review of the industry processing cycle, the structure of this report follows the pattern of an outline of issues not specific to either SIC classification, followed by individual examination of industry based on the 1980 SIC and industry based on the 1970 SIC. The final chapter examines considerations required in historical comparisons of census industry data.

Much of the emphasis in this report will be on potential inconsistencies between census data and other data sources, as well as the identification of problems and solutions that were required in verifying the quality of the responses, coding and processing of the industry variable in the 1986 Census. Despite this critical approach, it should be noted that, in general, the quality of the 1986 industry data compares favourably with other census years and other data sources. Particularly for comparison of data sources for relatively small counts, i.e. less than 20,000 weighted responses, it should be remembered that the census sample of 1 in 5 is significantly larger than that of the other sources which were examined. For example, the Labour Force Survey sample of 1 in 300-400 leads to such weighting and sampling variability for these smaller counts that these results should be treated with caution. As expected, minor processing and data quality problems did arise from the increased coding detail required to obtain data based on the 1980 SIC and the need to use an intermediate coding structure in order to later recreate the two industry variables. The problems and difficulties which occurred as a consequence of this extra detail and more complex processing are offset by the availability of two industry variables (one comparable to historical industry data, the other comparable to more current data sources).

The following actions were taken before release of the 1986 industry data.

For industry based on the 1970 SIC, the data were released with the combination of two classes, 822 - Related health care institutions and 828 - Welfare organizations, into one Class 822/828 - Related health care institutions and welfare services. This combining of classes was required because of the miscoding of a number of nursing homes (with and without personal health care) and old age homes. Further detail is given in Chapter VI, Summary of Issues Specific to Industry Data Based on the 1970 SIC.

For Industry based on the 1980 SIC, the combining of groups was done in three places:

Groups 091 - Service industries incidental to crude petroleum and natural gas and 092 - Service industries incidental to mining were combined into Group 091/092 - Service Industries Incidental to Mineral Extraction. This was required because of miscodes of companies in one of the Regional Office processing coding manuals (i.e. the List of Establishments). The error was particularly noticeable in Alberta.

Groups 401 - Residential building and development and 402 - Non-residential building and development were combined into Group 401/402 - Building, Developing and General Contracting Industries. This action was based on inconsistencies in the Labour Force Survey, 1986 Census and 1981 Census counts, as well as comments from coding consultants and Assistant Regional Processing Managers (ARPMs). The problem stemmed from the difficulty in coding to a level of precision higher than the degree of detail given by respondents.

An attempt to code government services to the full 3-digit group level was found to be unsuccessful. Seventeen 3-digit government codes were collapsed into five groups. This is the same level of coding that is done by the Labour Force Survey and is equivalent to the level of 1981 Census coding.

It should be noted that in these three instances where combining was required, these groups are equivalent to 1981 Census classes. In all cases, the level of detail of the responses given was not sufficient to provide good data.

More detailed information on these changes can be found in Chapter IV, Summary of Issues Specific to Industry Data Based on the 1980 SIC.

In addition to these points, Chapter III, Summary of Non-specific Data Quality Issues discusses some quality problems which did not require action (i.e. special notes or data manipulation) but which will be studied more fully before 1991.

## II. OVERVIEW OF THE INDUSTRY PROCESSING CYCLE

This chapter is designed to give the reader some background on the steps involved in processing the industry variables in the 1986 Census. Besides summarizing some of the required stages, it will also identify several areas that needed analysis in a data quality context.

### A. Regional Office Processing

#### 1. Coding Structure

It was in Regional Office processing (ROP) that respondent information given on census questionnaires was translated into industry codes. There are two industry variables by which 1986 Census data are published (i.e. industry based on the 1970 Standard Industrial Classification (SIC) and industry based on the 1980 Standard Industrial Classification). However, in order to avoid double coding of industry responses, it was decided to use an intermediate coding structure and later reassign the coded data to the 1970 SIC or 1980 SIC as applicable. This often involved the creation of new codes which were in neither classification system, but which were added to real codes in both systems when the data were reorganized. This approach had been taken successfully with the occupation variable in 1981 and was repeated again for the occupation variable in 1986. The 1980 SIC was taken as the basis for preparing the intermediate classification but, because of the extreme differences between the 1970 and 1980 SICs, it was also necessary to modify the classification with the insertion of extra classes, in order to provide some continuity and structure. The new classification is usually referred to as the ICM classification, the name being taken from the Industrial Coding Manual (ICM), the principal ROP coding tool. To illustrate the increased level of detail and complexity, the total number of codes increased from 330 to 563 from 1981 to 1986.

#### 2. Industrial Coding Manual (ICM)

The ICM was arranged in the same format as a SIC manual, with the classified index followed by a more descriptive analytical section and finally an alphabetical listing of all industry descriptions. Coders were instructed to search for descriptions in the analytical section rather than rely on the alphabetical list, since it contained cautions and instructions on industry coding. However, it was likely that many coders made more extensive use of the detailed alphabetical list than was recommended. In addition to these sections, which were similar to the SIC manuals, there was another section in the ICM which contained item descriptions for "comparison" codes or "dummy" codes. These were codes which did not fit into the structure of the ICM classification, but were required in order to recreate the 1970 and 1980 SICs. Unless specified by a particular ROP instruction, coders were expected to use other sections of the ICM in preference to these comparison codes, and to make use of these codes only when there was a direct or near direct word by word match. The tendency to use or not use these comparison codes was eventually a source of some error, since there was often a regional bias (supported by a particular coding consultant, Assistant Regional Processing Manager or coding supervisor). The overall usage of more codes, including comparison codes, will return as an issue several times in the examination of possible data quality problems, particularly in regard to coding. The second principal coding manual (i.e. the List of Establishments) also

generated data quality problems, although these were often of a different nature and were based on actual coding errors in the List.

### **3. List of Establishments (LOE)**

This coding manual was based on exactly the same ICM codes as the Industrial Coding Manual and was created from a larger list of companies in Canada stored on the Business Register Master File. The LOE was the first manual searched by coders and, if an exact address and company name match was found, the code was entered on the questionnaire without using any other manuals. Of the major data files of industry data at Statistics Canada, the census is the only one which so thoroughly combines the two varieties of coding as is represented by the ICM (i.e. coding of individual responses to **kind of business**) and the LOE (i.e. coding of individual responses to **name of company** of employment). As will be seen, this mixed methodology leads to difficulty in finding data sources for comparison purposes. For example, the Survey of Employment, Payrolls and Hours (SEPH) is based on a survey of establishments and the information available to SEPH coders includes more complete financial information on sales of products and services of the same type than is available to the business register coders who produce the List of Establishments. On the other hand, Labour Force Survey coders base their coding primarily on descriptions of **kind of business**. It will be noted throughout the report that the combination of the two sources as used in the census has both advantages and disadvantages. Because the LOE leads to several coding errors that required "fixing" the data, there may be a tendency to emphasize the negative aspects, but the principal benefit (consistency and accuracy of coding) should not be overlooked. If possible, a full evaluation of the use of the LOE as a coding device will be undertaken before 1991 ROP procedures are finalized.

### **4. Consultants and ROP Debriefing**

The introduction of coding consultants from Employment and Immigration Canada appeared to be a significant aid in the quality of ROP coding. In particular, the debriefing of the coding consultants and the Assistant Regional Processing Managers in Ottawa at the end of the ROP cycle led to some valuable insights into possible coding difficulties. Again, reference will be made throughout the document to cautions expressed by the consultants, and this additional information was often the extra factor which led to an adjustment of the data (e.g., combining classes to mask data quality problems at the class level). The technical communiqués requesting help in the solution of difficult cases were also a source of information when the quality of data was questioned. These communiqués were sent when coding consultants or Assistant Regional Processing Managers had exhausted all possible measures in attempting to code a response without the aid of Head Office staff, or when there appeared to be inconsistencies or errors in processing instructions or manuals.

### **B. Edit and Imputation (E & I)**

At the E & I processing stage, industry data that had been transferred to magnetic tapes were processed to give complete "clean" data which were stored on a data base linking all household and person responses. For industry purposes, the process involved three main procedures. They were:

- the actual transfer (loading) of the unedited values from magnetic tapes to a data base;

- the provision of representative industry values to those respondents who should have answered the industry questions but did not;
- the editing of the data in order to avoid conflicting responses from the economic variables.

### 1. Loading the Data Base

As the data were loaded onto an E & I data base, we had our first opportunity to look at aggregate counts for the different codes assigned in ROP processing. In examining the data, several inconsistencies were identified and investigated, and the original questionnaires were searched as required. A problem with Service industries incidental to mining was identified but action was delayed until a later processing stage. There were two errors which required data adjustment at this stage and a summary of the actions taken are given here.

#### **Code I0102 - House Raising and Moving**

Counts for this industry code were found to be surprisingly high and further investigation revealed that many respondents who had been employed in the transportation of household furniture (i.e. respondents said they were "moving houses") had been erroneously classified in I0102, an industry code concerned with the actual movement of a house or cottage from one location to another.

The data were adjusted by changing the industry code to 4562 - Used goods, moving and storage, if the respondent had not given his occupation as one of several construction-related occupations.

#### **Code I0120 - Co-axial Cable System for Closed Circuit Transmission**

Problems with this code stemmed from inaccuracies in the List of Establishments, as well as some miscoding. The specific problems were:

- misentering of digits by the coders of code I0120 instead of the frequently occurring code I1020 - Fish products;
- mistaken entries in the LOE for Northern Ontario and Eastern Canada of some telephone companies as I0120 instead of I4820;
- mistakes in the LOE where Telesat Canada was incorrectly coded to I0120 instead of I0118.

These data were readjusted depending upon the occupations of the respondents (e.g., fish canner, lineman) in relationship with the area of the country (e.g., Northern Ontario).

After readjustment, there were no inconsistencies in the data for either problem, although the results would have been slightly different if they had been subject to no coding errors.

## **Other**

In addition to these miscodes, there were several other instances of a minor nature that were noted. For instance, it was typical to find miscodes of some frequently occurring codes like I1020 in some less common codes with similar digits, e.g., I0120. The I0120 miscodes were changed because, as noted previously, it was necessary to look at all I0120 codes for more substantial coding problems. However, in general, these miscodes were evaluated but no further action was taken because the counts were relatively low.

## **2. Imputation**

The second major E & I stage, as it applies to the industry variable, is the imputation (creation) of industry responses for those workers who were identified from other economic questions as having worked, but whose industry response was blank, not codable or "invalid". The imputation procedure (named CANEDIT) assigned respondents to an industry major group by matching with another respondent on the data base with a similar profile and assigning the respondent with a blank or invalid industry code the industry major group of the "donor". Table 1 shows the relative distribution of the major groups with and without these imputed records, as well as a relative distribution of the imputed codes. It can be noted that in no case does the relative distribution after addition of the imputed codes change more than 0.1%. There is slightly more variety in the distribution of the imputed codes themselves (e.g., in MG 92 - Food and Beverage Service Industries, the imputed distribution is 6.3% as against a before imputation distribution of 4.9%) but, on the whole, the results look very reasonable at the aggregate level. Of course, greater disparity would be found if the table was cross-classified by other variables such as age and/or sex.

## **3. Edit**

The last major E & I process which affects the industry variable is the editing of the industry, occupation and class of worker variables in order to guarantee internal consistency, e.g., that a person whose occupation is "Elementary or secondary school teacher" has been coded to a teaching or related industry. This is the last stage where adjustments to the data can be made and, in fact, the problems identified in the loading stage were corrected in this edit step.

## **C. Retrieval Data Base Creation**

After the industry variable has been processed through E & I, the data are in their final form. In the retrieval data base creation step, the two variables that will be made available to the output program are created, IND80 (based on the 1980 SIC) and IND70 (based on the 1970 SIC). These new variables are created by reordering the final E & I industry variable into the appropriate groupings.

### III. SUMMARY OF NON-SPECIFIC DATA QUALITY ISSUES

There are two major areas with data quality problems that were not specific to the use of either of the two classification systems (i.e. 1970 or 1980 SIC), but were found in whatever classification system was selected. Neither of the problems required data adjustment or special notes, but both will be outlined here and could provide the subject for further data quality evaluation during the 1988-1991 period. The two problems were:

- the difficulty in correctly assigning a response to the retail or wholesale sector, when this sector is not specifically stated;
- undercoverage of reporting certain labour market activity in comparison with the Labour Force Survey data.

#### A. Differentiation of the Retail/Wholesale Economic Sector

The difficulty in code assignments in the trade sector had been mentioned by both coding consultants and Assistant Regional Processing Managers as a source of possible error. For an incomplete response, in the absence of further information (e.g., local knowledge), or when the company name could not be found in the LOE, it was often a case of making one assignment to retail trade and the next to wholesale trade. This problem would apply equally to the Labour Force Survey data as well, where there is the advantage of the interview but the disadvantage of not making extensive use of the LOE as a coding tool. In any case, it was seen in the evaluation of IND80 that although there was often a poor "fit" between census and survey results for the retail (or wholesale) sale of a product, when the wholesale and retail parts were combined, the results were found to be much better. For example, in MG 55 - Motor Vehicle, Parts and Accessories Industries, Wholesale, the census is 40% (18,000 persons) higher than the LFS, in MG 63 - Automotive Vehicles, Parts and Accessories Industries, Sales and Service, the census is 10% (41,000 persons) lower than the LFS. There are other, less dramatic instances of the same type of reverse difference in LFS - census comparisons. It is difficult to judge if there is a "right" or "wrong" to the results. No special note was issued since, whenever it was possible to check the figures with 1981 LFS and census data, the results were found to be very much the same. This would be an interesting topic for future study, and might yield benefits to both the LFS and the census.

#### B. Industry Variable Undercoverage

**Note:** Industry will be discussed in terms of the 1980 SIC but there are equivalent problems for the data grouped in the 1970 SIC as well.

Overall, when 1986 Census counts have been adjusted to the 1986 Labour Force Survey universe, there is still a shortfall of 2.8% (400,000 workers) when we are dealing with the largest "applicable" universe in census terms, i.e. anyone who had worked since January 1, 1985. Although there may be other methodological factors which contribute to this difference, there is one point which returns again and again, i.e. the better coverage of the marginal worker by the survey. This marginal worker was identified throughout the analysis of the industry variable. A female in Private households (e.g., baby-sitting or cleaning), a male in Direct sellers (e.g., newspaper boy), a female in Direct sellers (e.g., news delivery or door-to-door catalogue sales), a male in Services to buildings and dwellings (e.g., janitor or cleaner).

In all these cases, we are dealing with workers who may alternate periods of employment and unemployment, workers who may not consider what they do to be "working" and, in many of the cases, workers whose information will be reported by another person (e.g., a parent or other household maintainer). These marginal workers tend to be much better reported by the survey interview than the census mail-back. In 1981, the undercount in Private households was noted in the industry certification report. This was found to be true in 1986 as well. In fact, the undercount for females in Private households (182,000) is larger than the total undercoverage of all females (167,000). It is possible that the LFS count is high (e.g., some baby-sitters who work in their own home who should be coded to 979 - Other personal and household services may have been coded to 974), but it is certain that there is a significant undercoverage here from the census point of view. In addition to 974 - Private households, it is evident that there is census undercoverage in 692 - Direct sellers and 995 - Services to buildings and dwellings.

In examining the 1981 Labour Force Survey and 1981 Census data, the same problems can be identified (e.g., newspaper delivery is in 699 - Other retail, and this is higher in the LFS than in the census). Since we are missing perhaps as many as 400,000 marginal workers from our census industry coverage, 1986 data rearranged and displayed on the basis of the 1970 SIC would also be missing these respondents. However, since the 1986 LFS data can only be retrieved in the form of industry based on the 1980 SIC, no direct comparisons of where this undercoverage falls can be made.

The following table illustrates the breakdown for paid workers and the self-employed of some selected industries where it was thought that this undercount of marginal workers was most likely to be present. Other industries where the LFS - census difference was larger in either absolute or relative terms were not included, but it is very possible that there are other cases where there is a strong influence of this marginal worker undercoverage.

As can be calculated from this table, these four categories account for almost 70% of the undercoverage for all workers and almost 60% of the undercoverage for the self-employed.

If time permits, it may be possible to create a profile of these marginal workers that are being missed by the census in order to more efficiently process census data in 1991.

No special note or data adjustment to industry was issued before data release, particularly since the principal component of the undercount (i.e. 974 - Private households) had already been identified in 1981, but also because this problem affects all economic variables.



COMPARISON OF THE PAID WORKER AND SELF-EMPLOYED CATEGORIES IN THE LABOUR FORCE SURVEY(1) AND THE CENSUS FOR SELECTED INDUSTRIES, BY SEX, FOR CANADA, 1986

INDUSTRY	ALL CLASSES OF WORKER(2)		PAID WORKERS				SELF-EMPLOYED			
	BOTH SEXES				TOTAL		INCORPORATED		UNINCORPORATED	
	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS
ALL INDUSTRIES	14,076,000	13,676,210	12,188,000	12,294,020	1,767,000	1,283,285	506,000	398,745	1,261,000	884,540
MG 40 - BUILD.DEVEL. & GEN.CONTRACTING	233,000	204,585	181,000	163,950	52,000	39,760	27,000	17,510	25,000	22,250
692 - DIRECT SELLERS	66,000	38,755	0	26,545	62,000	12,000	0	1,675	62,000	10,325
974 - PRIVATE HHLDS	271,000	86,205	76,000	80,820	195,000	5,045	0	265	195,000	4,780
995 - SERVICE TO BLDGS & DWELLINGS	122,000	88,380	83,000	77,060	39,000	10,675	3,000	3,075	36,000	7,600

INDUSTRY	ALL CLASSES OF WORKER(1)		PAID WORKERS				SELF-EMPLOYED			
	MALES				TOTAL		INCORPORATED		UNINCORPORATED	
	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS
ALL INDUSTRIES	7,863,000	7,629,980	6,590,000	6,615,890	1,243,000	989,495	416,000	317,940	827,000	671,555
MG 40 - BUILD.DEVEL. & GEN.CONTRACTING	210,000	181,750	160,000	143,830	49,000	37,630	25,000	16,245	24,000	21,385
692 - DIRECT SELLERS	40,000	20,920	0	13,580	39,000	7,310	0	1,160	38,000	6,150
974 - PRIVATE HHLDS	14,000	10,775	6,000	9,000	9,000	1,205	0	100	9,000	1,105
995 - SERVICE TO BLDGS & DWELLINGS	75,000	50,240	43,000	42,000	32,136	7,765	0	2,340	30,000	5,425

INDUSTRY	ALL CLASSES OF WORKER(1)		PAID WORKERS				SELF-EMPLOYED			
	FEMALES				TOTAL		INCORPORATED		UNINCORPORATED	
	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS	LFS	CENSUS
ALL INDUSTRIES	6,213,000	6,046,230	5,598,000	5,678,125	523,000	293,785	90,000	80,800	434,000	212,985
MG 40 - BUILD.DEVEL. & GEN.CONTRACTING	23,000	22,830	21,000	20,115	0	2,130	0	1,265	0	865
692 - DIRECT SELLERS	26,000	17,835	0	12,960	24,000	4,695	0	520	24,000	4,175
974 - PRIVATE HHLDS	257,000	75,435	70,000	71,345	186,000	3,845	0	170	186,000	3,675
995 - SERVICE TO BLDGS & DWELLINGS	47,000	38,140	40,000	34,750	7,000	2,905	0	730	6,000	2,175

(1) ROUNDED TO THOUSANDS AND COUNTS LESS THAN 4,000 SUPPRESSED, FOR LFS ONLY

(2) INCLUDES UNPAID FAMILY WORKERS



#### **IV. SUMMARY OF ISSUES SPECIFIC TO INDUSTRY DATA BASED ON THE 1980 SIC**

##### **A. Data Quality**

There were some data quality problems for industry in the form of the 1980 classification caused by the increase in the level of coding detail required for specific portions of the classification. This was particularly evident in Government Service Industries, where the data were combined and released at the major group level, and in Construction Industries, where codes were collapsed into one major group.

In the case of Government Service Industries, there was an expansion to 17 codes at the 3-digit level in the 1980 SIC against five in the 1970 SIC. For Construction Industries, there were 14 1980 SIC 3-digit codes versus four 1970 SIC 3-digit codes.

The third instance where collapsing of codes for data release was required was the Mining Industries, where a problem specific to Service industries incidental to mining was a reflection of an attempt to code to a detailed level, compounded by some miscodes in one of the principal coding tools (i.e. the List of Establishments). There were other problems which were not considered serious enough to require combining groups or issuing cautionary notes. Further detail on these problems can be found in Chapter V, 1980 SIC - Detailed Examination. All data were examined at the group level and, if comparisons of data sources indicated there was the possibility of a quality problem, this investigation was carried further.

The three major data quality problems with the 1980 SIC will be discussed here in some detail.

##### **1. Government Service Industries**

In 1981, data for this division were collected in five categories, i.e. Defence services, Other federal administration, Provincial administration, Local administration and Other government offices. In the 1980 SIC, there is a much more detailed breakdown at the 3-digit level to which we attempted to code in 1986, e.g., Other federal government was broken down into:

- (a) Protective services;
- (b) Labour, employment and immigration services;
- (c) Foreign affairs and international assistance;
- (d) General administrative services;
- (e) Human resource administration;
- (f) Economic services administration.

There are similar, slightly less detailed, breakdowns for Provincial and territorial and Local governments.

In practice, it was found that for Quebec, in particular, there was a tendency to code to the General administration code at the expense of the more specific

codes. Excluding the territories, Quebec was the province which had the highest proportion of responses coded to General administration for Federal, Provincial and territorial and Local governments. A detailed breakdown of Government Service Industries by Canada, the provinces and territories is shown in Table 2, but a short excerpt of the table is shown here to illustrate the problem. The data shown are for Canada, Quebec and Ontario for Local government service industries.

	CANADA		QUEBEC		ONTARIO	
	#	%	#	%	#	%
MG 83 - Local government service industries	299,745	100.0	76,000	100.0	110,975	100.0
8320 Protect.	64,160	21.4	14,895	19.6	29,025	26.2
8350 General	143,520	47.9	48,405	63.7	40,555	36.5
8360 Human res.	62,080	20.7	7,180	9.4	28,980	26.1
8370 Economic	18,275	6.1	2,495	3.3	8,630	7.8
Respondents imputed into major group 83	11,715	3.9	3,035	4.0	3,795	3.4

It can be easily seen that the distributions for Ontario and Quebec are not at all similar and that the Canada level data are somewhere in between the results for the two provinces (a reasonable outcome when dealing with the two largest provinces). Accepting the fact that there are provincial differences in municipal administration, the variations in the data are not acceptable at this level (in particular, note the difference in the general administrative category, 63.7% versus 36.5%).

The local government example was chosen because it shows the largest distortion in comparing the distributions. However, the effect is found to a lesser degree in the provincial and territorial and federal breakdowns.

For the release of industry data, codes were collapsed to the major group level which is equivalent to the level of detail in the 1981 Census and is equal to the level of data collected by the Labour Force Survey since they have converted to the 1980 SIC.

The problem that would have occurred in presenting the data if no collapsing had been done can be seen in the examination of code 8360 - Human resources. The data before collapsing would imply that there were four times as many workers in Ontario as in Quebec providing these services, which is unlikely.

## 2. Major Group 40 in Construction Industries Division

Major Group 40 is Building, Developing and General Contracting Industries. It is composed of two Groups at the 3-digit level, i.e. Group 401 - Residential building and development and Group 402 - Non-residential building and development. Problems were expected in this major group since we had been advised by the Regional Office coding consultants that it was very difficult to differentiate these groups from respondent-provided information (particularly if the company name with its associated SIC code was not found in the List of Establishments). A summary table shows the data at the Canada level, comparing the 1986 Labour Force Survey and the 1986 Census.

	1986 LFS	% dist.	1986 Census	% dist.	% diff. LFS- Census (1986)
401	195,000	83.8	153,710	78.1	-21.3
402	38,000	16.2	42,985	21.9	13.1
Total	233,000	100.0	196,695	100.0	-15.6
MG total including respondents imputed	233,000		204,580		-12.2

More detailed data are available in Table 3, showing 1981 Census recoded data, 1986 Labour Force Survey data and 1986 Census data for Canada.

The undercount of the census in comparison with the Labour Force Survey is an illustration of the better coverage and definition of the "marginal" worker by the Labour Force Survey interview collection method.

The combination of (a) cautions from the coding consultants, (b) undercoverage for the major group as a whole, (c) the disparity in the census-survey differences for the two classes, and (d) the difficulty expected in the assignment of codes for establishments engaged in this industrial activity by business register coders (the source for our List of Establishments code books), all lead to the recommendation of combining these two classes and publishing at the major group level only.

It should be noted that the 1981 recoded data that was used in comparisons based on the 1980 SIC were not at all similar to the 1986 data (i.e. Group 402 was three times as large as Group 401), and although this appeared to be a data quality problem with the 1981 data, it was a final factor in the decision to recommend the collapsing of classes in 1986.

### 3. Services Incidental to Mineral Extraction

This major group contains two groups:

091 - Service industries incidental to crude petroleum and natural gas;

092 - Service industries incidental to mining.

In investigating some significant differences in Canada-level comparisons between the 1981 Census, 1986 Labour Force Survey and 1986 Census, for these groups, it was found that the results were very poor for the province of Alberta, where 60% of the responses for major group 09 were found.

The results are summarized here:

Industry	1981 Census (recode)	1986 LFS	1986 Census	% change 1981-1986 (Census)	% diff. LFS-Census (1986)
Canada					
091	30,420	39,000	28,050	-7.8	-28.1
092	12,150	9,000	16,080	32.3	78.7
<b>MG Total</b> (excluding imputed codes for 1986 Census)	42,570	48,000	44,130	3.7	-8.1
Alberta					
091	23,740	29,000	20,305	-14.5	-30.0
092	2,700	-	5,995	122.0	over 2,800% before suppression
<b>MG Total</b> (excluding imputed codes for 1986 Census)	26,440	29,000	26,300	-0.5	-9.3

Occupation distributions for these industries were examined and a significant number of occupations related to "drilling" were found for industry Group 092 - Service industries incidental to mining, which would be typical of industry Group 091 - Service industries incidental to crude petroleum and natural gas. A sample of individual questionnaires from Alberta was examined and from the description of the industry given by the respondents (e.g., drilling or related activities), it was found that several Alberta companies had been coded to industry Group 092 instead of to Group 091.

This research took place before the industry variable had been processed through the E & I system and an investigation was made to fix the data in the E & I process. No method of adjusting the data seemed feasible, e.g., the drilling occupations were not specific enough to Group 091 to allow the data adjustment to be made by a global change of all respondents with a specific occupation. It was decided at that time that combining the groups at the major group level seemed appropriate. The coding for Alberta (and to a lesser extent Saskatchewan) was almost certainly wrong and since this represents a large proportion of the data for Canada, the groups were collapsed.

For the industry variable in the form of the 1970 SIC, there is one class which includes both these 1980 SIC groups and, for that reason, this data quality problem was not an issue in this classification.

**B. Level of Detail Available in 1986 Industry Data Based on the 1980 Standard Industrial Classification**

**Note:** Although some of these points are discussed elsewhere in this document at greater length, they are summarized here for those users whose principal concern is data availability.

Industry from the 1986 Census is available at the 3-digit level based on the 1980 SIC with the following exceptions:

**Division A - Agricultural and Related Service Industries**

**Major Group 09 - Service Industries Incidental to Mineral Extraction**

**Major Group 40 - Building, Developing and General Contracting Industries**

**Division K - Finance and Insurance Industries**

**Division N - Government Service Industries (although one 3-digit code, 811 - Defence services, is available)**

Explanations for the restriction of these categories to the 2-digit major group level are given in the following discussion.

**Division A - Agricultural and Related Service Industries**

There are two major groups in this division. For the first major group in particular, i.e. Agricultural Industries, census respondents do not give sufficient detail in their responses to effectively assign farms to the different categories that would be required to code at the 3-digit level, e.g., livestock farms as opposed to field crop farms.

**Major Group 09 - Service Industries Incidental to Mineral Extraction**

As noted in Services Incidental to Mineral Extraction under **Data Quality** in this chapter.

**Major Group 40 - Building, Developing and General Contracting Industries**

As noted in Major Group 40 in Construction Industries Division under **Data Quality** in this chapter.

**Division K - Finance and Insurance Industries**

This was another instance where the level of detail of information given by census respondents was expected to be insufficient to code to the 3-digit level. This is a very difficult division to code when we do not have access to financial statements or records. As an example, there is one 3-digit SIC code for Deposit accepting mortgage companies (Group 704) and there is another SIC code in a different major group for Mortgage companies (Group 722), commercial mortgage companies are in Group 712 and mortgage brokers are in Group 742. A further example would be the difficulty in differentiating Group 711 - Consumer Loan Companies and Group 712 - Business Financing

Companies. In the absence of a trained enumerator who could elicit further detail, the census responses were expected to be too vague to allow for coding to the 3-digit level in this division.

There were two other factors which contributed to this decision:

- (1) The List of Establishments as prepared by Business Register Division does not cover financial institutions very well and this meant our coders would, for the most part, be operating without the aid of one of our two main coding manuals.
- (2) The level of detail of the 1980 SIC at the 2-digit level (i.e. 5 codes) is the same as the level of detail of the 1970 SIC at the 3-digit level. In other words, coding at the 2-digit level in 1986 was equivalent to coding at the 3-digit level in 1981. To illustrate this point, a table of near-equivalent 1980 and 1970 SIC codes for finance industries follows, with the counts for the experienced labour force shown for each code.

There are several factors to note before examining these data. They are:

- (1) The 1980 SIC data are based on a **current (1986)** definition of the labour force.
- (2) The 1970 SIC data are based on a **1971-adjusted** definition of the labour force.
- (3) Although these categories are nearly equivalent, they are not exactly equivalent. There are some industries that were moved from one category to another in the conversion from the 1970 to the 1980 SIC. Only in Insurance Industries (i.e. 1980 SIC 730, 1970 SIC 721) is this a major change, since this involved the addition of Workman's Compensation Boards and the Unemployment Insurance Commission to these categories in the 1980 SIC whereas, in the 1970 SIC, they were classified in Public Administration.

#### 1986 DATA

1980 SIC 700	265,120
1970 SIC 701	265,220
1980 SIC 710	13,860
1970 SIC 703	14,150
1980 SIC 720	25,295
1970 SIC 707	23,265
1980 SIC 730	121,230
1970 SIC 721	113,405
1980 SIC 740	26,855
1970 SIC 705	27,290

#### Division N - Government Service Industries

As noted in Government Service Industries under **Data Quality** in this chapter.



## V. 1980 SIC - DETAILED EXAMINATION

In this chapter, the data for each individual division and major group based on the 1980 SIC are separately analysed in comparison to alternative data sources. Often, there is nothing significant to report. In other cases the analysis is taken further to the group level.

Principal sources are:

- May 1986 Labour Force Survey (in all cases LFS data are rounded to 1,000 and suppressed LT 4,000);
- 1981 Census industry recoded (a recode which was done after the 1981 Census from a selected sample);
- 1986 Census industry data.

The universe for all tabulations was restricted to the Labour Force Survey universe as far as possible and was based on all workers who had worked since January 1 of the previous year (1980 or 1985 as applicable). In 1981, the LFS used the 1970 SIC and for that reason comparisons of 1981-1986 growth for the LFS and the census will be done only occasionally, where conversion from one classification to another did not pose significant problems.

**Note:** The Labour Force Survey universe differs from the census universe in its exclusion of the Yukon and Northwest Territories, households of Canadians outside Canada (e.g., embassies), full-time members of the Armed Forces and Indian reserves.

### Division A - Agricultural and Related Service Industries

1981 Census	529,725
LFS	599,000
1986 Census	566,435

1981-1986	6.9%
LFS-1986 Census	-5.4%

The census increase for this division is virtually the same as the increase in the total for the selected universe (6.1%). The variance with the LFS (census -5.4%) is understandable in this division where marginal workers would be better identified by the LFS.

### MG 01 - Agricultural Industries

1981 Census	Only available at the division level in the recode
LFS	571,000
1986 Census	542,630

LFS-1986 Census	-5.0%
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There is nothing significant to note for Major Group 01 in a data quality context. Data were not collected at the group level for this major group, since census respondents do not give enough detail to differentiate the types of farm (e.g., livestock versus field crop).

### **MG 02 - Service Industries Incidental to Agriculture**

1981 Census	Not available
LFS	27,000
1986 Census	23,805
LFS-1986 Census	-11.8%

From examination of the data of the equivalent major group as classified under the 1970 SIC, it can be seen that trends for both the LFS and census were increases in the 1981-1986 period, with the LFS gain being larger. Census results appear reasonable.

### **Division B - Fishing and Trapping Industries**

1981 Census	42,650
LFS	56,000
1986 Census	51,950
1981-1986	21.8%
LFS-1986 Census	-7.2%

The 1981-1986 increase of 21.8% is significant, and welcome, since this was noted in the Industry Certification Report in 1981 as being a problem area (particularly in Newfoundland). In 1981, the discrepancy between the LFS and census for the employed labour force was -17%. This census, the difference is -7.2% (for all workers for which industry was applicable). Once again the discrepancy in Newfoundland is high (-30.8), although much less than it was in 1981 (-58.5%).

### **MG 03 - Fishing and Trapping Industries**

The results for this major group are the same as division results.

It should be noted that in this major group, the Group 031 - Fishing industries shows a disparity of -15.7% in comparing the census and the survey. Again (as with agriculture), there is the continuing census difficulty of covering part-time, part-year, seasonal, minimum-hours workers.

### **Division C - Logging and Forestry Industries**

1981 Census	108,015
LFS	117,000
1986 Census	121,610
1981-1986	12.6%
LFS-1986 Census	3.9%

There is a specific problem with Major Group 05 - Forestry Services Industry.

#### **MG 04 - Logging Industry**

1981 Census	83,465
LFS	92,000
1986 Census	84,205
1981-1986	0.9%
LFS-1986 Census	-8.5%

This major group follows the pattern seen in other primary industries (undercounts as against the LFS).

#### **MG 05 - Forestry Services Industry**

1981 Census	24,555
LFS	24,000
1986 Census	37,405
1981-1986	52.3%
LFS-1986 Census	55.9%

This major group was closely examined because of the discrepancy (census 55.9% higher than LFS) in the LFS-census counts as well as the large growth for 1981-1986. Two factors were noted.

- In observing occupation distributions for this industry major group, it seems likely that some logging operations were reported here rather than in the Logging industry. This is true, in part, to an ambiguous introduction that is found in the ICM (as well as the 1980 SIC), which implies that this major group included all "forestry" activities, whereas it should cover only some marginal activities.
- "Reforestation services" are included here, and the growth in this activity seems strong, particularly in Quebec and British Columbia.

In the end, it was decided that no action was warranted, although rewording of the introduction in the appropriate manuals will be done before these code books are used for another application.

#### **Division D - Mining (Including Milling), Quarrying and Oil Well Industries**

1981 Census	216,175
LFS	221,000
1986 Census	200,690
1981-1986	-7.2%
LFS-1986 Census	-9.2%

Two of the four major groups required closer examination (i.e. MG 06 and MG 09).

**MG 06 - Mining Industries**

1981 Census	112,360
LFS	103,000
1986 Census	81,660
1981-1986	-27.3%
LFS-1986 Census	-20.7%

The LFS-census difference here is almost entirely accounted for by the difference in Metal mines (25,000 difference -34.1%). In investigating Metal mines in the more detailed 1970 classification (where Metal mines is a major group not a group), all trends (i.e. LFS, Survey of Employment Payroll and Hours (SEPH) and census) seem to be in the same direction (i.e. gold up, other metal mines down). The figure, despite the discrepancy, is acceptable. This is a case where establishment coding (i.e. from company name lists with associated SIC codes) would yield quite different results from coding from respondents' descriptions of their company's kind of business (since an individual respondent may not be aware of his mining company's main economic activity, particularly when several minerals or products are taken from the same mine). Results are consistent throughout all provinces.

**MG 07 - Crude Petroleum and Natural Gas Industries**

1981 Census	51,580
LFS	58,000
1986 Census	61,315
1981-1986	18.9%
LFS-1986 Census	5.7%

All trends, i.e. LFS and SEPH in the 1970 classification and the census in the 1980 classification, show an increase indicating the recovery of this industry from 1983 low points.

**MG 08 - Quarry and Sand Pit Industries**

1981 Census	9,670
LFS	12,000
1986 Census	11,980
1981-1986	23.9%
LFS-1986 Census	-0.2%

The results seem reasonable, with a good match.

**MG 09 - Service Industries Incidental to Mineral Extraction**

1981 Census	42,570
LFS	48,000
1986 Census	45,735
1981-1986	7.4%
LFS-1986 Census	-4.7%

The major group results were fine but the two individual groups in this major group were a problem source.

In particular, there was an overcount in Group 092 of respondents who should have been coded to Group 091. This was most evident in Alberta where there was a 2,800% difference between the LFS and census results.

Group 091 - Service industries incidental to crude petroleum and natural gas includes many "drilling" type occupations. In examining the occupational distribution for Group 092 - Service industries incidental to mining, many respondents were seen with these "drilling" occupations. As well, an examination of a sample of questionnaires for respondents in Alberta showed that the companies for which they worked had been erroneously classified to 092 rather than 091 in the List of Establishments.

Groups 091 and 092 were collapsed into one Group 091/092. This was not required in the 1970 classification, since there was one code, 099, to which both these industrial activities were classified. The results are discussed more fully in Chapter IV, Summary of Issues Specific to Industry Data Based on the 1980 SIC.

**Division E - Manufacturing Industries**

1981 Census	2,337,725
LFS	2,366,000
1986 Census	2,338,105
1981-1986	0.0%
LFS-1986 Census	-1.2%

There is virtually no difference at the division level.

**MG 10 - Food Industries**

1981 Census	266,475
LFS	273,000
1986 Census	277,075
1981-1986	4.0%
LFS-1986 Census	1.5%

Results are quite consistent at the major group level. At the group level, there was a significant LFS-census difference for Group 107, Bakery products industries. This underlines the difficulty in coding bakeries where goods are sold on the premises (which are coded to retail) as against establishments where the emphasis is baking only. In any case, the census results appear to be reasonable.

#### **MG 11 - Beverage Industries**

1981 Census	44,985
LFS	40,000
1986 Census	40,570
1981-1986	-9.8%
LFS-1986 Census	1.4%

There is no problem at the major group level. There are some differences of up to 20% between the LFS and census at some group levels but nothing significant.

#### **MG 12 - Tobacco Products Industries**

1981 Census	8,760
LFS	10,000
1986 Census	8,255
1981-1986	-5.8%
LFS-1986 Census	-17.4%

There are no differences that cannot be explained by weighting and sampling in the Labour Force Survey (e.g., the total LFS sample is less than 50 persons).

#### **MG 15 - Rubber Products Industries**

1981 Census	28,855
LFS	26,000
1986 Census	26,600
1981-1986	-7.8%
LFS-1986 Census	2.3%

There is no problem at the major group level. At the group level, there are inconsistencies, but the counts are too low for further analysis.

### **MG 16 - Plastic Products Industries**

1981 Census	44,820
LFS	68,000
1986 Census	54,060
1981-1986	20.6%
LFS-1986 Census	-20.5%

Trends for SEPH, LFS and census, for MG 15 - Rubber Products Industries (down) and MG 16 - Plastic Products Industries (up) are all the same, but the LFS increase is much larger than the census counts.

At the group level for Plastic Products Industries, there is a much smaller residual group (i.e. Group 169, Other plastic products industries) for the census in comparison with the survey and these counts are distributed throughout the other groups.

### **MG 17 - Leather and Allied Products Industries**

1981 Census	34,290
LFS	36,000
1986 Census	31,010
1981-1986	-9.6%
LFS-1986 Census	-13.9%

Major group results (which are the same as the group in this case) are reasonable.

### **MG 18 - Primary Textile Industries**

1981 Census	46,320
LFS	26,000
1986 Census	28,535
1981-1986	-38.4%
LFS-1986 Census	9.7%

The drop in the Primary Textile Industries is very well demonstrated by all groups in this major group with consistent LFS-census results much lower than 1981 Census results.

**MG 19 - Textile Products Industries**

1981 Census	50,715
LFS	45,000
1986 Census	44,280
1981-1986	-12.7%
LFS-1986 Census	-1.6%

Results are consistent with the Primary Textile Industries as well.

**MG 24 - Clothing Industries**

1981 Census	151,520
LFS	170,000
1986 Census	159,110
1981-1986	5.0%
LFS-1986 Census	-6.4%

There is no problem at the major group level. This is a case, as is noted also in the 1970 classification, where there was too high a level of detail in the coding (i.e. 14 codes collapsed to make the four groups in Major Group 24). In addition to this, there is the difficulty in differentiating between establishments which make up Group 244, Women's clothing, from those which make up Group 243 - Men's and boy's clothing. Many firms make both. The result of these combined problems is a large group, i.e. Group 249 - Other clothing and apparel industries, which shows an increase of 66.1% over 1981 and is 23.7% higher than the LFS estimate. In any case, the results are consistent in each coding region and province and were not collapsed or regrouped.

**MG 25 - Wood Industries**

1981 Census	154,330
LFS	152,000
1986 Census	149,015
1981-1986	-3.4%
LFS-1986 Census	-2.0%

There is no problem at the major group level. The only area that required examination is Group 254 - Sash, door and other millwork industries, where census results are 20% lower than the LFS. No apparent explanation is available.



**MG 26 - Furniture and Fixture Industries**

1981 Census	63,365
LFS	68,000
1986 Census	70,515
1981-1986	11.3%
LFS-1986 Census	3.7%

There is no problem at the major group level. In examining the individual groups, the 1986 Census has a much higher residual Group 269, Other furniture and fixture industries, than the LFS (although even this is a decrease from 1981). The difference seems to come completely from Group 261 - Household furniture industries. At the provincial level and the level of coding (i.e. regional) the results were consistently the same across Canada.

**MG 27 - Paper and Allied Products Industries**

1981 Census	151,350
LFS	127,000
1986 Census	136,880
1981-1986	-9.6%
LFS-1986 Census	7.8%

There is no evident problem at the major group or group level.

**MG 28 - Printing, Publishing and Allied Industries**

1981 Census	158,760
LFS	186,000
1986 Census	177,395
1981-1986	11.7%
LFS-1986 Census	-4.6%

There is no problem at the major group level. Group 283 - Publishing industries, may be slightly off (-22.2% compared to LFS) because of the difficulty in differentiating this group from Group 284 - Combined publishing and printing industries. If the establishment is not in the List of Establishments, it is almost impossible to get this level of detail from the respondent's answer (e.g., a typical response would be "newspaper"). This was noted by coding consultants to be a particularly difficult coding decision.

**MG 29 - Primary Metal Industries**

1981 Census	144,585
LFS	137,000
1986 Census	131,410
1981-1986	-9.1%
LFS-1986 Census	-4.1%

There is no problem at the major group level. However, there are two areas that require examination.

Results for Groups 295 - Non-ferrous metal smelting and refining industries and 296 - Aluminum rolling, casting and extruding industry, have been collapsed since 1971, because there is some difficulty in differentiating between the two groups. This does not appear to be required in 1986, with the results consistent with SEPH and LFS ratios of one group to the other (e.g., for the ratio 295 to 296, the 1986 Census is 3.7 to 1, 1986 LFS Census is 2.6 to 1, 1986 SEPH is 3.8 to 1).

There is a significant 1981-1986 decrease in Group 291 -Primary steel industries (-20.6%) and this figure is substantially lower than the LFS figure (-29.3%). The LFS trend is also down from 1981 to 1986. The SEPH 1983-1986 result did not change, while the LFS 1981-1983 result is a 13% decrease (these are 1970 SIC results). The LFS 1984-1986 trend has not changed. The direction of the trend in the early 1980s is clear (a decrease), it is the magnitude of the change that seems to vary.

**MG 30 - Fabricated Metal Products Industries (Except Machinery and Transportation Equipment Industries)**

1981 Census	200,560
LFS	164,000
1986 Census	181,090
1981-1986	-9.7%
LFS-1986 Census	10.4%

There is no problem at the major group level. At the group level, it is only the smaller groups (LT 20,000) which exhibit large percentage differences.

**MG 31 - Machinery Industries (Except Electrical Machinery)**

1981 Census	103,450
LFS	80,000
1986 Census	89,565
1981-1986	-13.4%
LFS-1986 Census	12.0%

The major group continues the trend with the metal industries (i.e. significant declines but LFS figures remain higher than census). In this instance, there are some discrepancies at the group level caused by higher counts by the census in the residual Group 319 - Other machinery and equipment industries.

**MG 32 - Transportation Equipment Industries**

1981 Census	221,095
LFS	265,000
1986 Census	253,065
1981-1986	14.5%
LFS-1986 Census	-4.5%

There is no problem at the major group level and a good result at the group level. Only the smaller groups show wider divergences. The LFS is higher in the residual group for this major group.

**MG 33 - Electrical and Electronic Products Industries**

1981 Census	166,900
LFS	195,000
1986 Census	173,480
1981-1986	3.9%
LFS-1986 Census	-11.0%

These results are not as close as could be expected. The major group is not "too bad" but the groups differ noticeably. Part of this problem may be the different coding methodologies, particularly the use of the LOE by the census. Often an establishment dealing in this type of product will cross group boundaries in the type of product manufactured and results can be very different if we compare respondent responses to more complete financial information (which is used by the Business Register Division in their coding and consequently in the List of Establishments).

**MG 35 - Non-Metallic Mineral Products Industries**

1981 Census	72,920
LFS	68,000
1986 Census	65,055
1981-1986	-10.8%
LFS-1986 Census	-4.3%

There is no problem at the major group or group level.

**MG 36 - Refined Petroleum and Coal Products Industries**

1981 Census	28,000
LFS	27,000
1986 Census	26,790
1981-1986	-4.3%
LFS-1986 Census	-0.8%

There is no problem at the major group or group level.

**MG 37 - Chemical and Chemical Products Industries**

1981 Census	101,690
LFS	110,000
1986 Census	110,150
1981-1986	8.3%
LFS-1986 Census	0.1%

There is no problem at the major group level. Many of the groups are small so it is difficult to discuss these results in terms of LFS-census comparisons. The only difference here of any significance is the -34.6% disparity between the 1986 Census and the LFS for Group 374 - Pharmaceutical and medicine industry. It should be noted, however, that in 1981, the LFS was also higher than the census, so in that respect the differences are consistent.

**MG 39 - Other Manufacturing Industries**

1981 Census	93,985
LFS	95,000
1986 Census	104,190
1981-1986	10.9%
LFS-1986 Census	9.7%

There is no problem at the major group level. There are some inconsistencies at the group level, but this is to be expected when examining some of these residual categories.

**Division F - Construction Industries**

1981 Census	797,040
LFS	839,000
1986 Census	804,420
1981-1986	0.9%
LFS-1986 Census	-4.1%

The LFS-census undercount for this division is more (-4.1) than the LFS-census undercount in total (-2.8) and reflects the ability of the survey to better cover marginal workers who may only be working in construction for a short period of time. It should be noted that the 1981-1986 Census trend under the 1970 classification is a negative not a plus as is seen here. In general, there appear to be some problems of undercounting by the census in Major Group 40, and some inconsistencies in Major Group 42.

**MG 40 - Building, Developing and General Contracting Industries**

1981 Census	189,435
LFS	233,000
1986 Census	204,580
1981-1986	8.0%
LFS-1986 Census	-12.2%

In terms of both number and percentage differences, there are some significant differences in this major group. There are even larger differences at the group level.

		LFS	1986 Census	
401	Residential building and development	195,000	153,710	-21.2
402	Non-residential building and development	38,000	42,985	13.1

The undercount for the major group as a whole, which in large part describes the undercount at the division level, can be partially explained by the better enumeration by interviewer methodology of marginal workers (the large proportion of which would be found in this major group for general construction). The difficulty in assigning workers to either of the two categories (i.e. residential versus non-residential) had already been raised as a difficult coding decision by our Regional Office coding consultants. This type of differentiation would also be difficult in the LFS coding methodology.

Provincially, the distribution of "residential" to "non-residential" was consistent in all provinces and coding regions except British Columbia.

In view of the LFS-census inconsistencies and the identified problems at the Regional Office stage, the two groups were collapsed to Major Group 40. These results are discussed more fully in Chapter IV, Summary of Issues Specific to Industry Data Based on the 1980 SIC.

**MG 41 - Industrial and Heavy (Engineering) Construction Industries**

1981 Census	132,640
LFS	101,000
1986 Census	105,535
1981-1986	-20.6%
LFS-1986 Census	4.3%

The major group and individual groups are reasonably consistent.

#### **MG 42 - Trade Contracting Industries**

1981 Census	462,250
LFS	495,000
1986 Census	481,715
1981-1986	4.2%
LFS-1986 Census	-2.7%

There is no problem at the major group level. At the group level, the most significant differences are an overcount in the census for Group 422 - Structural and related work in comparison to the LFS (41.4%) and an undercount in Group 427 - Interior and finishing work (-13.5%) and Group 429 - Other trade work (-64.7%).

Collapsing was not recommended for this major group, in particular because the LFS is so much higher in the residual Group 429 - Other trade work (57,000 as against 20,095 for the 1986 Census).

It should be noted that here and throughout the Construction Industries Division, the 1981 recode values suffer from their own data quality problems (e.g., there is a 139,685 count for Group 429 - Other trade work in comparison to 20,095 for the 1986 Census).

#### **MG 44 - Service Industries Incidental to Construction**

1981 Census	12,720
LFS	10,000
1986 Census	12,790
1981-1986	0.6%
LFS-1986 Census	27.9%

This is a small major group. The larger group in this group matches well in a LFS-census comparison.

#### **Division G - Transportation and Storage Industries**

1981 Census	547,540
LFS	584,000
1986 Census	598,245
1981-1986	9.3%
LFS-1986 Census	2.4%

There is no problem at the division and major group level, but there are some minor discrepancies at the group level.

**MG 45 - Transportation Industries**

1981 Census	516,965
LFS	564,000
1986 Census	572,080
1981-1986	10.7%
LFS-1986 Census	1.4%

The LFS-census match at the major group level is excellent. At the group level for those groups with more than 20,000, there is an LFS-census undercount by the census of -25.0% for Group 454 - Water transport industries and -14.5% for Group 458 - Other transportation industries, and a distinct overcount, in Group 459 - Other service industries incidental to transportation, of 59.4%. Two of these large discrepancies are in residual categories. No adjustment or collapsing of data was required.

**MG 46 - Pipeline Transport Industries**

1981 Census	6,835
LFS	5,000
1986 Census	8,110
1981-1986	18.7%
LFS-1986 Census	62.2%

These counts are too small to be effectively analysed.

**MG 47 - Storage and Warehousing Industries**

1981 Census	23,740
LFS	16,000
1986 Census	18,055
1981-1986	-23.9%
LFS-1986 Census	12.8%

These counts are too small to be effectively analysed.

**Division H - Communication and Other Utility Industries**

**MG 48 - Communication Industries**

1981 Census	276,295
LFS	305,000
1986 Census	289,380
1981-1986	4.7%
LFS-1986 Census	-5.1%

There is no problem at the major group level and for all large groups.

**MG 49 - Other Utility Industries**

1981 Census	135,595
LFS	141,000
1986 Census	142,780
1981-1986	5.3%
LFS-1986 Census	1.3%

There is no problem at the major group level. There are several inconsistencies at the group level, but nothing where adjustments were required. The residual Group 499 - Other utility industries, n.e.c. is higher in the census than the LFS (27.5%).

**Division I - Wholesale Trade Industries**

1981 Census	592,230
LFS	643,000
1986 Census	619,360
1981-1986	4.6%
LFS-1986 Census	-3.7%

Coding consultants had expressed some difficulties in assigning respondents to the wholesale or retail sector and this can be noted in comparing the total wholesale and retail sales for a particular product type. The total often gives a better match than the individual retail or wholesale breakdown. A more complete analysis of this trend is found in Chapter III, Summary of Non-specific Data Quality Issues.

It should be noted that Wholesale trade was only a major group in the 1970 classification and raising it to the level of a division has created nine major groups at a lower level.

**MG 50 - Farm Products Industries, Wholesale**

1981 Census	11,165
LFS	16,000
1986 Census	15,895
1981-1986	42.4%
LFS-1986 Census	-0.7%

There is no problem at the major group level, and there is only one group.



**MG 51 - Petroleum Products Industries, Wholesale**

1981 Census	33,825
LFS	31,000
1986 Census	28,185
1981-1986	-16.7%
LFS-1986 Census	-9.1%

There is a reasonable match at the major group level and only one group.

**MG 52 - Food, Beverage, Drug and Tobacco Industries, Wholesale**

1981 Census	75,990
LFS	110,000
1986 Census	92,375
1981-1986	21.6%
LFS-1986 Census	-16.0%

There is not a good match at the major group or group level between the census and the LFS. In comparing the 1981 Census and the 1981 LFS, the same differences were found (although they were not as large). In all cases the trends were the same for each group. The census was originally higher or lower and the gap between the census and the LFS increased.

The difference is particularly noticeable in Group 521 - Food, wholesale.

LFS	84,000
1986 Census	65,430
% diff.	-22.1%

**MG 53 - Apparel and Dry Goods Industries, Wholesale**

1981 Census	18,650
LFS	23,000
1986 Census	20,140
1981-1986	8.0%
LFS-1986 Census	-12.4%

There is a reasonable match, with small counts, at the major group and group levels.

**MG 54 - Household Goods Industries, Wholesale**

1981 Census	22,840
LFS	23,000
1986 Census	21,680
1981-1986	-5.1%
LFS-1986 Census	-5.7%

There is no problem at the major group or group level.

**MG 55 - Motor Vehicle, Parts and Accessories Industries, Wholesale**

1981 Census	42,925
LFS	45,000
1986 Census	62,845
1981-1986	46.4%
LFS-1986 Census	39.7%

This is a very bad LFS-census match at the major group and group level. The reverse of this mismatch of results is found in Major Group 63 - Automotive Vehicles, Parts and Accessories Industries, Sales and Service where census counts are proportionally lower than the LFS.

This difference was even more pronounced (on a percentage basis) in 1981 when census counts were 70% higher than the LFS.

It is difficult to isolate a single cause of these discrepancies in LFS and census coding, but I would expect it to be related to companies having been assigned codes in the wholesale sector by Business Register Division coders and these codes being accepted by census coders when no wholesale/retail differentiation was clear.

Due partly to the historical difference in the counts, no adjustment of the data was done.

**MG 56 - Metals, Hardware, Plumbing, Heating and Building Materials Industries, Wholesale**

1981 Census	107,465
LFS	108,000
1986 Census	102,725
1981-1986	-4.4%
LFS-1986 Census	-4.9%

There is no problem at the major group level. There are substantial differences at the group level (note the LFS-census difference of -18.6% in Group 563 - Lumber and building materials, wholesale) but these are comparable to 1981.

**MG 57 - Machinery, Equipment and Supplies Industries, Wholesale**

1981 Census	172,795
LFS	179,000
1986 Census	177,190
1981-1986	2.5%
LFS-1986 Census	-1.0%

There is a good match at the major group level and at the group level with the exception of higher counts for the LFS in the residual Group 579 - Other machinery, equipment and supplies, wholesale.

**MG 59 - Other Products Industries, Wholesale**

1981 Census	106,565
LFS	107,000
1986 Census	98,330
1981-1986	-7.7%
LFS-1986 Census	-8.1%

The major group total matches quite well. There is a wide variance for the individual group responses, but this is to be expected in a residual major group, particularly when many of the groups have small counts.

**Division J - Retail Trade Industries**

1981 Census	1,560,535
LFS	1,852,000
1986 Census	1,759,535
1981-1986	12.8%
LFS-1986 Census	-5.0%

As noted in discussing wholesale trade, coding consultants noted difficulties in differentiating between wholesale and retail trade and there is often more agreement for a total of the wholesale and retail components of a product's sale than the individual wholesale and retail parts. In this division, there is one particular problem that should be noted. There is an undercount by the census in Group 692 - Direct sellers, in which the LFS coverage of marginal workers (e.g., paperboys) is much better than the census.

**MG 60 - Food, Beverage and Drug Industries, Retail**

1981 Census	396,890
LFS	477,000
1986 Census	493,060
1981-1986	24.2%
LFS-1986 Census	3.4%

There is an excellent LFS-census match at the major group and group level.

**MG 61 - Shoe, Apparel, Fabric and Yarn Industries, Retail**

1981 Census	147,695
LFS	181,000
1986 Census	174,420
1981-1986	18.1%
LFS-1986 Census	-3.6%

Comparisons are reasonable at the major group level but inconsistent at the group level, particularly Group 614 - Clothing stores, n.e.c., where the census count is down -21.9% from the LFS. This is partially compensated in percentage terms by a 27.7% increase in Group 612 - Men's Clothing Stores.

**MG 62 - Household Furniture, Appliances and Furnishings Industries, Retail**

1981 Census	77,675
LFS	125,000
1986 Census	110,100
1981-1986	41.7%
LFS-1986 Census	-11.9%

The LFS-census comparison at the major group level is not that bad, but there are two group values, Group 622 - Appliance, television, radio and stereo stores and Group 623 - Household furnishings stores in which the census is -25%. These changes are consistent throughout the provinces and coding regions. The 1981 figures are not in a form which is easily comparable, so it is difficult to judge if this difference is historically consistent. A possible explanation is that the List of Establishments coding by the census would tend to code these respondents to a company level if they indicate just a department for their Kind of business, whereas the LFS would tend to code these people to the Kind of business description, even if this was only the department description.

In other words, respondents working in furniture departments of larger establishments would be coded to the larger establishment (e.g., department store) by LOE coding but may be coded only as a furniture store if the coding was done by the Kind of business description.

**MG 63 - Automotive Vehicles, Parts and Accessories Industries, Sales and Service**

1981 Census	343,810
LFS	419,000
1986 Census	377,925
1981-1986	9.9%
LFS-1986 Census	-9.8%

As noted in the discussion for Major Group 55 - Motor Vehicle, Parts and Accessories Industries, Wholesale, there are some significant LFS-census discrepancies here at the group level. This is illustrated in Group 634 - Automotive parts and accessories stores (i.e. census down 28,000) where the difference can be found in the wholesale part of these products. As noted, this is the same type of difference that can be found in 1981 Census-LFS comparisons.

**MG 64 - General Retail Merchandising Industries**

1981 Census	329,885
LFS	298,000
1986 Census	303,685
1981-1986	-7.9%
LFS-1986 Census	1.9%

An excellent LFS-census match at the major group level. There is only one group in this major group.

**MG 65 - Other Retail Store Industries**

1981 Census	237,440
LFS	281,000
1986 Census	255,140
1981-1986	7.5%
LFS-1986 Census	-9.2%

In this major group we find some of the variety to be expected when examining a residual major group. The significant LFS-census differences in Group 651 - Book and stationery stores (-22.3%) and Group 658 - Toy, hobby, novelty and souvenir stores (-26.8%) are consistent throughout all provinces and coding regions and, in the case of Group 651, are supported by a similar trend in 1981.

As with the difference in Major Group 62, it is probably helpful for the census to be coding, at least in part, with the aid of the LOE, thus avoiding coding respondents to "departments" of larger companies.

**MG 69 - Non-Store Retail Industries**

1981 Census	27,135
LFS	71,000
1986 Census	45,205
1981-1986	66.6%
LFS-1986 Census	-36.3%

As noted, there is a significant undercount by the census in Group 692 - Direct sellers (including paperboys and similar occupations). This is due, in part, to the greater ability to identify marginal workers in an interview than by mail-back questionnaire.

**Division K - Finance and Insurance Industries**

1981 Census	455,535
LFS	491,000
1986 Census	490,740
1981-1986	7.7%
LFS-1986 Census	-0.1%

Coding was only done to the major group level for this industry. The census division totals agree well with LFS figures. At the major group level, there are several LFS-census differences, which serve to point out the difficulty of coding financial institutions and give support to the decision not to code this division to the 3-digit level. It should be noted that there may be some undercounting of Major Group 73 - Insurance Industries, at the expense of Major Group 76 - Insurance and Real Estate Agent Industries (Division L).

**MG 70 - Deposit Accepting Intermediary Industries**

1981 Census	270,280
LFS	275,000
1986 Census	287,165
1981-1986	6.2%
LFS-1986 Census	4.4%

There is a quite reasonable agreement for this large major group (mostly banks).

**MG 71 - Consumer and Business Financing Intermediary Industries**

1981 Census	17,215
LFS	18,000
1986 Census	15,055
1981-1986	-12.5%
LFS-1986 Census	-16.4%

There is more of a variance than could be hoped for, but it is difficult to further analyse counts less than 20,000.

**MG 72 - Investment Intermediary Industries**

1981 Census	30,155
LFS	15,000
1986 Census	28,140
1981-1986	-6.7%
LFS-1986 Census	87.6%

This is a very large difference. The only (partial) explanation is the opposite shift in Major Group 74 - Other Financial Intermediary Industries, a residual category in which the LFS is 6,000 higher than the census. Again, these are difficult entries to code, even at the major group level, and the results were accepted. The 1981 Census-LFS results had an even larger gap.

**MG 73 - Insurance Industries**

1981 Census	114,985
LFS	148,000
1986 Census	131,245
1981-1986	14.1%
LFS-1986 Census	-11.3%

As noted, there may be somewhat of an undercount here in comparison with Major Group 76 - Insurance and Real Estate Agent Industries. This major group (73) contains "insurance companies" in comparison with Group 76, which contains only "independent insurance and real estate agents".

**MG 74 - Other Financial Intermediary Industries**

1981 Census	22,895
LFS	35,000
1986 Census	29,130
1981-1986	27.2%
LFS-1986 Census	-16.8%

As mentioned previously, codes in this residual major group may have been used by the LFS coders in preference to codes in Investment Intermediary Industries (MG 72).

**Division L - Real Estate Operator and Insurance Agent Industries**

1981 Census	199,645
LFS	228,000
1986 Census	244,375
1981-1986	22.4%
LFS-1986 Census	7.2%

Results are reasonable throughout the division, with the exception of a possible overcount in "insurance agents" (MG 76).

**MG 75 - Real Estate Operator Industries (Except Developers)**

1981 Census	80,365
LFS	93,000
1986 Census	88,285
1981-1986	9.9%
LFS-1986 Census	-5.1%

The LFS-census match is reasonable (particularly with the imputed codes added into the major group). The difference in Group 751 - Operators of buildings and dwellings is a bit larger than could be hoped.

**MG 76 - Insurance and Real Estate Agent Industries**

1981 Census	119,285
LFS	135,000
1986 Census	156,090
1981-1986	30.9%
LFS-1986 Census	15.6%



As noted in discussing Major Group 73, coders have difficulty in coding the general entry "insurance" and it appears that in 1986, there may be an overcount in "insurance and real estate agents" which are the independent operators, at the expense of "insurance companies" which are classed in Major Group 73.

It can be seen that the coding for Major Group 73 and Major Group 76 is consistent throughout Canada, with the exception of Ontario which has 17,000 of the total difference of 22,000 in the 1986 LFS Census results. No collapsing of codes was recommended for the two major groups, in part because the 1981 Census-LFS results were similar.

#### **Division M - Business Service Industries**

1981 Census	511,645
LFS	619,000
1986 Census	637,610
1981-1986	24.6%
LFS-1986 Census	3.0%

There is a good match at the division level, but for the individual groups, responses vary and there is not a good LFS-census match. In general, the groups in this division have exhibited a consistent 25% growth from 1981 to 1986.

#### **Division N - Government Service Industries**

1981 Census	864,265
LFS	952,000
1986 Census	944,265
1981-1986	9.3%
LFS-1986 Census	-0.8%

There are reasonable results at the division and major group level. The group results are discussed in Chapter IV, Summary of Issues Specific to Industry Data Based on the 1980 SIC. A table of 3-digit values is shown in Appendix A.

#### **MG 81 - Federal Government Service Industries**

1981 Census	332,025
LFS	319,000
1986 Census	358,035
1981-1986	7.8%
LFS-1986 Census	12.2%

These counts are deceptive because of the restriction to the LFS universe. Almost all the increase in this division comes from Defence services and those respondents imputed into the major group. This can be seen in the examination of the industry variable based on the 1970 SIC which includes a SEPH comparison.

**MG 82 - Provincial and Territorial Government Service Industries**

1981 Census	280,750
LFS	316,000
1986 Census	301,855
1981-1986	7.5%
LFS-1986 Census	-4.5%

These results are consistent with 1981-1986, LFS-1986 Census and SEPH.

**MG 83 - Local Government Service Industries**

1981 Census	249,355
LFS	314,000
1986 Census	282,585
1981-1986	13.3%
LFS-1986 Census	-10.0%

These are reasonable results at the major group level.

**MG 84 - International and Other Extra-Territorial Government Service Industries**

1981 Census	2,135
LFS	suppressed
1986 Census	1,790
1981-1986	-16.2%
LFS-1986 Census	not applicable

These counts are too small to analyse.

**Division O - Educational Service Industries**

These counts are the same as Major Group 85, which follows.

**MG 85 - Educational Service Industries**

1981 Census	810,265
LFS	902,000
1986 Census	898,795
1981-1986	10.9%
LFS-1986 Census	-0.4%

There is a good match at the major group level and in all groups except Group 852 - Post-secondary non-university education which is down -16.2%. There is no apparent reason for the difference.

**Division P - Health and Social Service Industries**

These counts are the same as Major Group 86, which follows.

**MG 86 - Health and Social Service Industries**

1981 Census	957,275
LFS	1,120,000
1986 Census	1,119,145
1981-1986	16.9%
LFS-1986 Census	-0.1%

There is a good LFS-census match at the division level, but there are some inconsistencies with Group 863 - Non-institutional health services and Group 864 - Non-institutional social services. A problem of a more extreme nature for industry based on the 1970 SIC required collapsing, but it was not required here.

**Division Q - Accommodation, Food and Beverage Service Industries**

1981 Census	768,650
LFS	925,000
1986 Census	924,600
1981-1986	20.3%
LFS-1986 Census	-0.0%

There is a good LFS-census match at the division level, but some inconsistencies at the major group and group level.

**MG 91 - Accommodation Service Industries**

1981 Census	233,140
LFS	221,000
1986 Census	244,980
1981-1986	5.1%
LFS-1986 Census	10.9%

In terms of the LFS-census comparison, the major group total does not match that well, but the individual groups are not that unreasonable.

**MG 92 - Food and Beverage Service Industries**

1981 Census	535,510
LFS	704,000
1986 Census	679,620
1981-1986	26.9%
LFS-1986 Census	-3.5%

The major group match is reasonable (i.e. with imputed codes added in), but the variation in groups is a little more than expected. Possibly some of the additional counts in Group 911 - Hotels, motels and tourist courts, should have been coded into this major group in Group 921 - Food services or Group 922 - Taverns, bars and night - clubs.

**Division R - Other Service Industries**

1981 Census	698,395
LFS	1,116,000
1986 Census	924,165
1981-1986	32.3%
LFS-1986 Census	-17.2%

There is a significant census undercoverage here (i.e. in Group 974 - Private households) but when this difference (185,000) is accounted for, the results for the rest of the division match quite well.

**MG 96 - Amusement and Recreational Service Industries**

1981 Census	156,870
LFS	218,000
1986 Census	185,885
1981-1986	18.5%
LFS-1986 Census	-14.7%

This is not a good LFS-census match, at the major group or group level. The residual Group 969 - Other amusement and recreational services is markedly different (i.e. census -42.5% compared to the LFS). No additional data manipulation or collapsing was recommended.

**MG 97 - Personal and Household Service Industries**

1981 Census	186,825
LFS	474,000
1986 Census	309,495
1981-1986	65.7%
LFS-1986 Census	-34.7%

There is a census undercoverage problem in Group 974 - Private households (including such activities as baby-sitting and housekeeping) which are better covered by the LFS interviewer-collection process. In addition to this known problem, there are the high census results for the residual Group 979 - Other personal and household services. In other census years, no note had been added to output products to explain the Group 974 undercoverage and this approach was followed this time as well. The differences will be noted in any certification reports, data evaluations, and user guides prepared. A more complete explanation of the coverage difficulties in Groups 974 and 979 is given in Chapter III, Summary of Non-specific Data Quality Issues.

**MG 98 - Membership Organization Industries**

1981 Census	98,170
LFS	152,000
1986 Census	157,440
1981-1986	60.4%
LFS-1986 Census	3.6%

The major group total is fine. The individual groups vary considerably (particularly those with smaller counts). For the two groups with the largest counts, Group 981 - Religious organizations (-11.6%) and Group 986 - Civic and fraternal organizations (-8.9%), the variance was not that large.

**MG 99 - Other Service Industries**

1981 Census	256,525
LFS	271,000
1986 Census	271,350
1981-1986	5.8%
LFS-1986 Census	0.1%

There is a perfect match at the major group level, which is surprising for a residual major group. There are two significant disagreements at the group level:

- census down by 34,000 for Group 995 - Service to buildings and dwellings;
- census higher by 20,000 for Group 999 - Other services, n.e.c.

Although classification changes from 1981 to 1986 do not allow for direct comparisons of the data, examination of equivalent 1970 SIC classes indicate the same type of differences for the 1981 Census and 1981 LFS data.

- 1981 Census was down 13,000 for Class 898 - Services to buildings and dwellings.
- 1981 Census was higher by 24,000 for Class 899 - Miscellaneous services, n.e.s.

The 1986 difference for Group 995 is another example of the census undercoverage of marginal workers (in this case "cleaners"). Given the similarity of differences in 1981 and 1986, no further data adjustment was taken.

**VI. SUMMARY OF ISSUES SPECIFIC TO INDUSTRY DATA BASED ON THE 1970 SIC**

Use of an intermediate classification which was reordered into a 1970 and 1980 SIC caused some coding problems. This was noted in the Clothing Industries major group (where 14 different intermediate codes were reassigned to six 1970 SIC codes). In this major group, a 125% increase for 1981-1986 in Class 249 - Miscellaneous clothing industries seems to be due in large measure to this problem of too much coding detail. In this case, no action (i.e. collapsing of codes) was taken.

In a second instance, the major group for Health and Welfare Services in Division 10 - Community, Business and Personal Service Industries, further action was required. Coders were given 15 codes arranged on the basis of the 1980 SIC and these 15 codes were later reordered into eight codes in the 1970 SIC. There was a great deal of difficulty in the assignment of codes in this major group (e.g., "nursing homes with personal nursing care" were assigned a different 1970 code than "nursing homes without personal care" and this level of detail is seldom given by the respondent). The overall effect of these difficulties in coding was that different Regional Offices took different approaches to this coding application and, although the Canada-level figures are reasonable, there was no consistency of coding and regional differences were acute. A short table of Quebec and Ontario differences as they compare to Canada totals are shown here to identify the problem for three classes.

		Canada	Quebec	Ontario
821	1981	515,180	158,185	160,925
Hospitals	1986	527,660	159,960	170,355
	% diff.	2.4	1.1	5.9
822				
Related	1981	71,270	6,615	33,090
health care	1986	80,015	19,945	19,340
institutions	% diff.	12.3	201.5	- 41.6
828	1981	182,510	52,300	57,555
Welfare	1986	239,035	56,065	93,275
organizations	% diff.	31.0	7.2	62.1

The solution adopted was to combine Class 822 and Class 828 which places the problem codes in one class. This is done in the 1980 SIC by the natural grouping of industries in this classification.

**New class numbers after regrouping Class 822 and Class 828**

		Canada	Quebec	Ontario
822/828				
Related health	1981	253,780	58,915	90,645
care institutions	1986	319,050	76,010	112,615
and welfare	% diff.	25.7	29.0	24.2
organizations				

In addition to the required collapsing of Classes 822 and 828, which was done for all retrievals, there is a further collapsing of codes required when 1986 data are compared to other census years. A detailed discussion of which codes have to be collapsed, and in which instances, is discussed fully in Chapter VIII, Historical Considerations Regarding Census Industry Data.

There is one final data quality problem which is not readily identifiable in comparison between 1981 and 1986 Census figures but which is isolated and identified in verifying 1986 results in the form of the 1980 SIC. On the basis of the 1980 SIC, there is one group, Group 692 - Direct sellers, which appears to be undercounted by 25,000 by the census. The responses for this group on the basis of the 1970 SIC fall in Class 699 - Retail stores, n.e.s., however, there is no 1986 Labour Force Survey data available to compare to Class 699 (and the 1981-1986 Census increase 154,905 to 179,355, 15.8% appears quite reasonable). The only way in which to identify a shortfall is to compare 1981 Census and 1981 Labour Force Survey results. These differed by almost 40,000 (154,905 to 193,990) and from the results as shown by 1986 Census data on the basis of the 1980 SIC, Class 699 has suffered a similar undercount in this census. The problem is the superior coverage of marginal workers (e.g., newspaper carriers or door-to-door sales) by the enumerator-interview technique as practiced by the survey.

A similar undercount is seen for "baby-sitters" in Class 873 - Private households, and this is also discussed more fully in Chapter III, Summary of Non-specific Data Quality Issues.

As expected, the occupations "newspaper vendor" and "baby-sitter" as found in occupation classifications are also subject to this undercount.



## VII. 1970 SIC - DETAILED EXAMINATION

In this chapter the data for each individual division and major group based on the 1970 SIC are analysed separately in comparison to alternative data sources. As with the results in Chapter V, analysis was taken to a lower level if anything significant was found.

The principal data sources used to verify the data based on the 1970 SIC were:

- 1981 Census data;
- Survey of Employment, Payroll and Hours (SEPH) data from 1983 to 1986;
- Labour Force Survey data based on the 1970 SIC from 1981 to 1983;
- where comparable, Labour Force Survey data based on the 1980 SIC from 1984-1986.

Being given that the only directly comparable data source to 1986 Census data based on the 1970 SIC was the 1986 SEPH data, the emphasis in analysing the data was based on trends of growth and decline over the 5-year period from both LFS and SEPH as they could be applied to the 1981 Census data. It was thought that because of the extreme differences in coverage and methodology of the SEPH and census data (i.e. SEPH is an "establishment" as against a "household" survey), reliance on analysis of trends for the different industry divisions, major groups and classes would be more realistic. While the historical LFS and SEPH data sources are available, only references to a percentage increase or final 1986 data figure will be given in this document. A 1981-1986 LFS trend is shown occasionally, for industries in which there are few changes in the presentation of the data in the form of the 1970 or 1980 SIC. No attempt was made to adjust the data to cover classification changes, so these numbers are given for convenience of ready analysis only. They should not be considered as "comparable" data.

### Division 1 - Agriculture

1981 Census	532,250
1986 Census	552,175
1981-1986	4%
1981-1983 LFS	-2%
1981-1986 LFS	1%

This increase is supported by the LFS trend.

**MG 01/02 - Farms**

1981 Census	511,465
1986 Census	529,250
1981-1986	3%
1981-1983 LFS	-2%
1981-1986 LFS	0.5%

The 1981-1986 increase is reasonably consistent with the LFS trend.

**NOTE:**

Over 30,000 respondents are added to this major group by our final E & I "edits".

**MG 03 - Services Incidental to Agriculture**

1981 Census	20,885
1986 Census	22,925
1981-1986	10%
1981-1983 LFS	15%

Again, this increase is reasonably consistent with the LFS trend.

**Division 2 - Forestry**

1981 Census	111,475
1986 Census	120,025
1981-1986	8%
1981-1983 LFS	-3%
1981-1986 LFS	-4%
1983-1986 SEPH	-13%

The increase (even more pronounced for females at +20%) is contrary to the LFS trend of a 4% decrease, although the final figure is roughly the same (117,000 in the LFS). Both the LFS and SEPH show the same decreasing trend. This is particularly true for Forestry services in which the census trend is 44% growth (25,800 to 37,242) and the SEPH results are mildly supportive (2% increase for 1983-1986) and the LFS not supportive (-10% for 1984-1986, 8% increase for 1981-1983). From earlier work in the 1980 classification, "Forestry services" was identified as a problem area, and the problem is discussed more fully in the analysis of industry based on the 1980 SIC. No manner of adjusting the data was readily available and a cautionary note was not recommended.

### MG 01 - Logging

1981 Census	85,670
1986 Census	82,780
1981-1986	-3%
1981-1983 LFS	-6%
1983-1986 SEPH	-18%

There was a similar trend in the LFS.

### MG 02 - Forestry Services

1981 Census	25,800
1986 Census	37,245
1981-1986	44%
1981-1986 LFS	0%
1981-1983 LFS	8%
1983-1986 SEPH	2%

This is a problem area that could reflect on miscodes that should have been included in "Logging". It is due in part to the ambiguous description in the introduction to this major group in the 1980 SIC which was used in the ICM. The introduction implies a wider coverage for "Forestry services" than is actually the case. The provincial distribution is particularly skewed in Quebec (3,085 to 7,290), an increase of 136% and British Columbia (7,715 to 12,620) an increase of 64%. As previously mentioned, the inclusion of "reforestation services" in this major group would be at least a partial explanation of the 1981-1986 increases in Quebec and British Columbia, since there has been legitimate strong growth in this activity.

### Division 3 - Fishing and Trapping

1981 Census	44,400
1986 Census	51,540
1981-1986	16% (64% for females)
1981-1986 LFS	8%
1981-1983 LFS	1%

The 64% increase for females is a surprising trend, but the total count was only 7,955 with the East and Quebec showing over 100% increases. It is possible that there was some miscoding of "fish processing plants" in fishing rather than in Class 102, Fish products industry. No SEPH results are available for "Fishing".

In examining the results before edits, there were 1,705 persons in Occ. 8217 - Fishing, canning, curing and packing in the class Fishing. The majority of these should probably have been coded to Class 102 - Fish products industry. A global fix could not be made because there are some legitimate occupations in this unit group (e.g., fish curer) which should go into fishing. In 1981 in these occupations, there was a total of 710 in the labour force which was split nearly equally M - F (i.e. 350 to 365). The problem with miscoding between Fishing and Fish products industries is that establishments cross the class border from one industry to another and it is not always easy to classify respondents' descriptions in one industry. No data adjustment was made in this instance.

#### **MG 01 - Fishing**

1981 Census	38,060
1986 Census	45,385
1981-1986	19%
1981-1983 LFS	6%

As noted in comments for the division, it appears that there may be some problem in coding for Fishing industries in comparison with coding for Fish products industries (Class 102). This may require changes in future coding operations but no data adjustment was taken here.

#### **MG 02 - Fishery Services**

1981 Census	4,555
1986 Census	4,670
1981-1986	3%
1981-1983 LFS	-12%

Results are too small to analyse further.

#### **MG 03 - Hunting and Trapping**

1981 Census	1,790
1986 Census	1,475
1981-1986	-18%
1981-1983 LFS	-65%

Results are too small to analyse further.

**Division 4 - Mining (Including Milling), Quarries and Oil Wells**

1981 Census	221,945
1986 Census	198,335
1981-1986	-11%
1981-1983 LFS	-7%
1981-1986 LFS	-5%
1983-1986 SEPH	-2%

Although the LFS trend is in the same direction, it was only 5%. The SEPH figures support the census figures since the 1983-1986 trend in SEPH was a decrease against a 1983-1986 minor increase in the LFS. A problem requiring collapsing in the 1980 classification is not relevant here (i.e. both problem industries are in 099).

**MG 01 - Metal Mines**

1981 Census	82,915
1986 Census	51,860
1981-1986	-37%
1981-1983 LFS	-13%
1983-1986 SEPH	-11%

The 1981-1986 drop seemed significant and was examined more closely.

There was a 42% increase in "Gold mines" but all other metal mine classes showed decreases varying from 36% to 48%. The LFS decrease was high (15%) but still significantly lower than the census decrease. The problem is that after 1983, the LFS figures are only available in the 1980 classification which is less detailed for this particular major group, the 1983-1986 decrease in the LFS (-2%) was not as low as SEPH figures which showed an 11% decrease. In all cases, the trends are the same (i.e. gold up, other metals down) but the census figures represent the most pronounced changes.

**MG 02 - Mineral Fuels**

1981 Census	64,650
1986 Census	74,335
1981-1986	15%
1981-1983 LFS	-3%
1983-1986 SEPH	-1%

There is a similar trend in the 1981-1986 LFS (approximately 15%). The recovery in the petroleum industry is supported by LFS, census and SEPH (to a small degree).

**MG 03 - Non-metal Mines (Except Coal Mines)**

1981 Census	20,230
1986 Census	15,855
1981-1986	-22%
1981-1983 LFS	-0.3%
1983-1986 SEPH	-14%

From 1981 to 1986, the 22% decrease is caused almost entirely by a 51% decrease in Asbestos.

The 1981-1986 LFS trend was even more pronounced for non-metal mines (22,000 to 12,000), but Asbestos was not differentiated in any figures available after the 1984 change to the 1980 SIC. SEPH figures for the 1983-1986 period indicate a 36% drop for Asbestos.

**MG 04 - Quarries and Sand Pits**

1981 Census	9,705
1986 Census	11,585
1981-1986	19%
1981-1983 LFS	-17%
1983-1986 SEPH	-8%

The 1981-1986 LFS follows the same trend but with a larger increase (35%). The final figure is similar (1986 LFS 12,000).

**MG 05 - Services Incidental to Mining**

1981 Census	44,440
1986 Census	44,700
1981-1986	1%
1981-1983 LFS	-2%
1981-1986 LFS	-4%
1983-1986 SEPH	25%

This increase is reasonably consistent with the LFS which shows a 4% decrease.

For industry based on the 1980 SIC, the data will have to be collapsed to this level.

### **Division 5 - Manufacturing Industries**

1981 Census	2,365,865
1986 Census	2,283,415
1981-1986	-4%
1981-1983 LFS	-8%
1983-1986 SEPH	N/C

The 1981-1986 LFS trend is the same (-5%) but counts are higher in both cases. The LFS decrease is all in the period 1981-1983, while the 1983-1986 SEPH and 1984-1986 LFS register no change.

### **MG 01 - Food and Beverage Industries**

1981 Census	338,035
1986 Census	330,090
1981-1986	-2%
1981-1983 LFS	1%
1983-1986 SEPH	-6%

The classification composition of this major group has changed a great deal. However, both 1981-1983 LFS and 1984-1986 SEPH are virtually unchanged (both in 1970 SIC), while 1983 to 1984 SEPH shows a 5% decrease. Of the nine classes in this major group there were six with minor losses. The largest gain was 3%. In general, where comparable, the major group changed little from 1981.

### **MG 02 - Tobacco Products Industries**

1981 Census	8,760
1986 Census	7,975
1981-1986	-9%
1981-1983 LFS	-32%
1983-1986 SEPH	-13%

The 1981-1986 trend for the LFS is a 9% increase. SEPH is more consistent with census (i.e. showing a decrease in the 1984-1986 time period versus the LFS increase).

**MG 03 - Rubber and Plastics Products Industries**

1981 Census	73,495
1986 Census	80,755
1981-1986	10%
1981-1983 LFS	3%
1981-1986 LFS	40%
1983-1986 SEPH	-1%

The 1981-1986 LFS trend is a much higher (i.e. 40%) increase but the category has changed significantly.

The 1983-1986 SEPH is much more consistent with the 1986 Census than the LFS (e.g., the LFS shows a -32% decrease in rubber; 1984-1986 SEPH was virtually unchanged).

In all cases, the trend is the same with rubber products down and plastic products up.

**MG 04 - Leather Industries**

1981 Census	34,870
1986 Census	29,600
1981-1986	-15%
1981-1983 LFS	-14%
1983-1986 SEPH	-22%

All trends, LFS and SEPH, show a decrease. However, changes in the 1980 classification make the LFS comparability difficult. All four classes in this major group have shown an 1981-1986 decline.

**MG 05 - Textile Industries**

1981 Census	87,135
1986 Census	74,670
1981-1986	-14%
1981-1983 LFS	-27%
1983-1986 SEPH	1%

Cotton, wool, man-made fibre, all show at least a 30% decrease. This is another case where LFS comparisons are difficult. A sharp drop for 1981-1983 (-27%) is followed by consistency for 1984-1986 as against no change for 1983-1986 SEPH. The nine individual classes in this major group are small (i.e. only the residual class is larger than 15,000 in 1986) and only one class has grown significantly in the 1981-1986 time period (i.e. Class 188 - Automobile fabric accessory industry increased by 37%).



### MG 06 - Knitting Mills

1981 Census	23,910
1986 Census	18,285
1981-1986	-24%
1981-1983 LFS	2%
1983-1986 SEPH	-5%

There is no separate Knitting mills code in the 1980 SIC LFS, but SEPH shows a 5% decrease for 1983-1986.

This is one case where the increased coding required to code to both 1970 and 1980 systems may have had some effect on the coding in the 1970 classification. In this case, nine different codes were combined to yield code 239 - Knitting mills (except hosiery mills) as against one code in 1981.

### MG 07 - Clothing Industries

1981 Census	139,155
1986 Census	134,840
1981-1986	-3%
1981-1983 LFS	-1%
1983-1986 SEPH	-1%

Overall, the 1981-1986 decline is minor but the individual classes involved reveal a data quality problem. In particular, Class 249 - Miscellaneous clothing industries shows a 125% increase (11,860 to 26,695). This is probably more a reflection of the level of coding detail (i.e. 14 different codes split among 6 different 1970 SIC codes) than a true change. However, the trends in the other classes in this major group are reasonably well supported by trends in LFS and SEPH.

Since we are dealing with a residual class, no action was recommended. However, the inconsistencies will be noted in planning for future coding operations.

### MG 08 - Wood Industries

1981 Census	160,505
1986 Census	144,700
1981-1986	-10%
1981-1983 LFS	-16%
1983-1986 SEPH	-11%

The LFS trend is exactly the same. In absolute terms, the decline in Class 251 - Sawmills, planing mills and shingle mills (14,000) is almost enough to account for the total major group decline.

**MG 09 - Furniture and Fixture Industries**

1981 Census	73,515
1986 Census	79,670
1981-1986	8%
1981-1983 LFS	3%
1983-1986 SEPH	15%

The LFS change involves a classification adjustment. The 1981-1983 LFS followed by 1983-1986 SEPH support a similar trend. All four classes grew from 1981 to 1986.

**MG 10 - Paper and Allied Industries**

1981 Census	154,190
1986 Census	138,335
1981-1986	-10%
1981-1983 LFS	-11%
1983-1986 SEPH	3%

The 1981-1986 LFS trend is in the same direction but larger (-20% overall). The SEPH results are more moderate (and in fact indicate an increase for 1984-1986 versus an LFS drop). The results overall appear reasonable.

**MG 11 - Printing, Publishing and Allied Industries**

1981 Census	147,165
1986 Census	162,720
1981-1986	11%
1981-1983 LFS	8%
1983-1986 SEPH	4%

The 1981-1986 LFS trend is in the same direction with a larger 24% increase. The SEPH result is more consistent with the more modest census increase.

**MG 12 - Primary Metal Industries**

1981 Census	144,145
1986 Census	127,495
1981-1986	-12%
1981-1983 LFS	-15%
1983-1986 SEPH	-4%

The decrease is almost entirely due to the decrease in Class 291 - Iron and steel mills.

The 1981-1986 LFS trend is slightly larger (16% decrease). In previous censuses (i.e. 1971 and 1981) Classes 295 and 296 have been combined because of the difficulty in differentiating the two classes. However, this was not required in 1986. Further detail is given in the discussion of industry based on the 1980 SIC.

**MG 13 - Metal Fabricating Industries (Except Machinery and Transportation Equipment Industries)**

1981 Census	199,625
1986 Census	175,560
1981-1986	-12%
1981-1983 LFS	-21%
1983-1986 SEPH	-3%

The 1981-1986 LFS trend shows a 20% decrease and only one of the nine classes in the major group did not decline in the 1981-1986 period.

**MG 14 - Machinery Industries (Except Electrical Machinery)**

1981 Census	126,735
1986 Census	113,845
1981-1986	-10%
1981-1983 LFS	-11%
1983-1986 SEPH	-2%

The LFS is not comparable but 1981-1983 decreased by 11% and the 1983-1986 SEPH shows little change.

**MG 15 - Transportation Equipment Industries**

1981 Census	216,575
1986 Census	230,135
1981-1986	6%
1981-1983 LFS	-5%
1983-1986 SEPH	15%

The LFS trend is a 19% increase for 1981-1986, while SEPH values fall between census and LFS counts (i.e. 10% increase for 1984-1986 versus 17% LFS).

**MG 16 - Electrical Products Industries**

1981 Census	140,465
1986 Census	137,925
1981-1986	-2%
1981-1983 LFS	-7%
1983-1986 SEPH	9%

The LFS figures are not comparable. However, there is a 7% decrease for 1981-1983 LFS, a SEPH 9% increase for 1983-1986.

**MG 17 - Non-metallic Mineral Products Industries**

1981 Census	73,135
1986 Census	62,770
1981-1986	-14%
1981-1983 LFS	-14%
1983-1986 SEPH	7%

The 1981-1986 data for the LFS is not completely comparable. However, it shows the same general trend (-8%).

**MG 18 - Petroleum and Coal Products Industries**

1981 Census	28,030
1986 Census	26,110
1981-1986	-7%
1981-1983 LFS	-13%
1983-1986 SEPH	-5%

The 1981-1986 LFS exhibits the same trend, 10% decrease.

**MG 19 - Chemical and Chemical Products Industries**

1981 Census	105,700
1986 Census	106,585
1981-1986	1%
1981-1983 LFS	-9%
1983-1986 SEPH	6%

Again, although the 1981-1986 LFS is not completely comparable, the general trend is different (i.e. 7% decrease). SEPH shows the same 1983 to 1986 increase as the LFS (approximately 5%-6%).

#### **MG 20 - Miscellaneous Manufacturing Industries**

1981 Census	90,730
1986 Census	101,355
1981-1986	12%
1981-1983 LFS	-2%
1983-1986 SEPH	-14%

The LFS exhibits a 2% decrease for 1981-1983 and a 1% increase for 1984-1986. SEPH showed a 14% decrease for 1983-1986. This inconsistency is not unexpected when dealing with a residual major group.

#### **Division 6 - Construction Industry**

1981 Census	805,025
1986 Census	777,385
1981-1986	-3%
1981-1983 LFS	2%
1983-1986 SEPH	11%

The LFS trend is different (i.e. a 2.5% increase) while the SEPH counts for 1983-1986 agree with the LFS. The 1986 LFS is much higher (61,000) than the census.

Analysis of the construction work-force is difficult, but it should be noted the SEPH trend for 1983-1986 special trade contractors is a 16% gain which does not support the census results of a 3% increase from 1981 to 1986. The problem of undercoverage in this division is discussed more fully in Chapter III under Industry Variable Undercoverage.

#### **MG 01 - General Contractors**

1981 Census	332,670
1986 Census	302,730
1981-1986	-9%
1981-1983 LFS	-0.5%
1983-1986 SEPH	16%

The LFS data for 1986 on the basis of the 1980 SIC are not useful in detailed analysis of this major group on the basis of the 1970 SIC. However, it is worth noting that for construction overall, the LFS trend is an increase (as against a decrease in census). This is also true for SEPH construction in general, although it should be noted that SEPH figures are annual averages (and it is difficult to compare this type of data in such a seasonal industry).

#### **MG 02 - Special-trade Contractors**

1981 Census	472,360
1986 Census	474,655
1981-1986	0.5%
1981-1983 LFS	4%
1983-1986 SEPH	16%

This small census increase compares to a large increase in SEPH, and an increase for 1981-1983 in the LFS of 4%.

The level of detail of the 1986 coding manuals (i.e. 10 special trade codes in total as against one in 1981 and seven other construction codes compared to three in 1981) introduces a further factor in the comparison of coding schemes. At the aggregate level of the 1970 classification (i.e. four construction codes) there was some lack of agreement between the data sources, but no specific coding problems were evident.

#### **Division 7 - Transportation, Communication and Other Utilities**

1981 Census	992,040
1986 Census	1,013,165
1981-1986	2%
1981-1983 LFS	-1%
1983-1986 SEPH	1%

The LFS shows a nearly identical 1% increase from 1981 to 1986.

#### **MG 01 - Transportation**

1981 Census	568,195
1986 Census	603,425
1981-1986	6%
1981-1983 LFS	-4%
1983-1986 SEPH	2%

It should be noted that declines in water and rail transportation are offset by increases in some of the residual transportation fields (e.g., Highways and bridge maintenance, Miscellaneous services incidental to transport).

The other data sources are not supportive (e.g., 1981-1983 LFS trend down 4% and 1983-1986 SEPH up 2%), although none of the percentage changes are large. In all, only three of the 14 classes in this major group declined while there is a wide variety of gains (from 4% to 38%).

#### **MG 02 - Storage**

1981 Census	23,775
1986 Census	17,420
1981-1986	-27%
1981-1983 LFS	-8%
1983-1986 SEPH	-11%

The decrease in grain elevators SIC code 524 is substantial: 11,085 to 5,910 (-47%).

#### **MG 03 - Communication**

1981 Census	263,885
1986 Census	252,895
1981-1986	4%
1981-1983 LFS	6%
1983-1986 SEPH	-1%

The significant difference is a census decrease in Telephone systems from 124,190 to 112,280 (-10%) versus an LFS increase for 1981-1983 (8%) and an 1984-1986 increase in telecommunications carriers (7% increase).

1983-1986 SEPH shows a 4% decrease in Telephone systems.

This is another case where the increased level of coding detail (eight regular codes and nine comparison codes versus four codes in 1981) may have had some effect on the 1970 SIC industry data.

#### **MG 04 - Electric Power, Gas and Water Utilities**

1981 Census	136,180
1986 Census	139,430
1981-1986	2%
1981-1983 LFS	-4%
1983-1986 SEPH	2%

The census trend compares to a 1981-1983 LFS decrease and a 1983-1986 SEPH increase. There was a large growth in the residual class for this major group.

### Division 8 - Trade

1981 Census	2,141,870
1986 Census	2,262,780
1981-1986	6%
1981-1983 LFS	4%
1983-1986 SEPH	12%

The 1981-1986 LFS shows a 14% increase, with the final LFS figure 2,496,000. This could be affected by classification changes in this division. It is also different from 1981 figures in which the census was higher than the Labour Force Survey.

In comparisons made in the 1980 SIC for the census and the LFS, it was noted that often the total for a "product" (both retail and wholesale) gave better comparative results than the individual wholesale - retail components.

### MG 01 - Wholesale Trade

1981 Census	594,725
1986 Census	598,410
1981-1986	1%
1981-1983 LFS	-1%
1983-1986 SEPH	8%

There is nothing obvious in the lower level comparison although, in general, the highs and lows are more pronounced in the LFS.

### MG 02 - Retail Trade

1981 Census	1,547,145
1986 Census	1,664,370
1981-1986	8%
1981-1983 LFS	6%
1983-1986 SEPH	13%
1984-1986 LFS	6%

In the case of the LFS, the larger increases are affected by their enumerator method of collection, which tends towards capturing responses for some "marginal" types of work - note that in the 1980 classification, for 1986 data, the count is 38,755 in census versus 66,000 in the survey for Group 692 - Direct sellers (i.e. paperboys, etc.).



**Division 9 - Finance, Insurance and Real Estate**

1981 Census	667,880
1986 Census	708,935
1981-1986	6%
1981-1983 LFS	1%
1981-1986 LFS	9%
1983-1986 SEPH	11%

The trends match reasonably well for the division as a whole, but there is a possible problem identified in industry based on the 1980 SIC, of miscoding in Major Groups 02 and 03.

**MG 01 - Finance Industries**

1981 Census	341,380
1986 Census	348,090
1981-1986	2%
1981-1983 LFS	-4%
1983-1986 SEPH	11%

Results seem consistent at this level.

**MG 02 - Insurance Carriers**

1981 Census	108,080
1986 Census	119,160
1981-1986	10%
1981-1983 LFS	-1%
1983-1986 SEPH	1%

The discrepancy between the census and LFS trends for MG 02 reflects the difficulty in coding insurance agents (i.e. Class 721 in MG 02 if they work for a company or Class 735 in MG 03 if they work independently). This problem is addressed more fully in the discussion of industry based on the 1980 SIC.

**MG 03 - Insurance Agencies and Real Estate Industry**

1981 Census	218,410
1986 Census	241,680
1981-1986	11%
1981-1983 LFS	11%
1983-1986 SEPH	19%

Note the previous comment for MG 02.

### **Division 10 - Community, Business and Personal Service Industries**

1981 Census	3,793,280
1986 Census	4,345,510

1981-1986	15%
1981-1983 LFS	7%
1983-1986 SEPH	11%

As illustrated, the other data sources are very supportive of the large 1981-1986 growth.

### **MG 01 - Education and Related Services**

1981 Census	838,965
1986 Census	884,215

1981-1986	5%
1981-1983 LFS	10%
1983-1986 SEPH	7%

In general, for all data sources, the trends are very similar, although the increase is much less for the census.

### **MG 02 - Health and Welfare Services**

1981 Census	931,765
1986 Census	1,066,485

1981-1986	15%
1981-1983 LFS	6%
1983-1986 SEPH	9%

Within this major group, there are some troublesome counts in both classifications. For industry data regrouped according to the 1970 SIC, there is a problem with Classes 822 and 828, particularly in Quebec and Ontario.

The decision was taken to combine Classes 822 and 828 which solves the problem for data based on the 1970 SIC. This is partly done in the 1980 classification because of the manner in which industries are grouped in this classification. The problem is discussed more fully in Chapter VI, Summary of Issues Specific to Industry Data Based on the 1970 SIC.

### **MG 03 - Religious Organizations**

1981 Census	67,640
1986 Census	73,840
1981-1986	9%
1981-1983 LFS	23%
1983-1986 SEPH	not available

This is a surprising increase in the LFS from 1981-1983. The census results appear more reasonable in this case.

### **MG 04 - Amusement and Recreation Services**

1981 Census	160,320
1986 Census	180,955
1981-1986	13%
1981-1983 LFS	7%
1983-1986 SEPH	5%

There are similar trends in the LFS and SEPH. In examining the individual classes with census data, we find a large increase in Class 842 - Motion picture production and distribution (100%). However, a portion of this may be due to miscodes from Class 841 - Motion picture theatres (-20% in 1981-1986). There has no doubt been a significant increase in Class 842, but 100% may be a little higher than the actual value. Partially because the counts are low for these classes, no further action was taken.

### **MG 05 - Services to Business Management**

1981 Census	522,945
1986 Census	643,925
1981-1986	23%
1981-1983 LFS	5%
1983-1986 SEPH	14%

The results are well supported by the other main sources. Internally the results for each class are reasonable.

### **MG 06 - Personal Services**

1981 Census	210,260
1986 Census	296,895
1981-1986	41%
1981-1983 LFS	8%
1983-1986 SEPH	18%

The 1984-1986 LFS based on the 1980 SIC for Personal and health services varies from 423,000 to 474,000 respondents (12%).

One-third of the census increase is in Class 873 - Private households and another third is in Class 879 - Miscellaneous personal services.

In examining the distributions, we find the same problems as identified in 1981 (i.e. the survey covers marginal industries, such as private households, better than the census). Coverage seems improved from 1981 to 1986. Note, Class 879 includes baby-sitting but an ROP rule assigns "baby-sitters" to Class 873 if the activity is in another person's home. This was a possible source of 1986 miscode, since only Class 879 has a "baby-sitting" entry in the ICM and if the ROP rules were not followed, there would be overreporting of baby-sitters in Class 879. In fact, census results show an increase of over 140% in Class 879 for the 1981-1986 period. Some miscoding is suspected, but the extent is not clear. No data adjustment was made, in part because of the severe undercoverage in Class 873.

### **MG 07 - Accommodation and Food Services**

1981 Census	778,870
1986 Census	886,050
1981-1986	14%
1981-1983 LFS	2%
1983-1986 SEPH	21%

The trends are similar. The breakdown within the major group also seems reasonable.

### **MG 08 - Miscellaneous Services**

1981 Census	282,515
1986 Census	313,145
1981-1986	11%
1981-1983 LFS	13%
1983-1986 SEPH	8%

There are similar trends for the major group and the individual class trends look reasonable.

**Division 11 - Public Administration and Defence**

1981 Census	959,290
1986 Census	1,022,625
1981-1986	7%
1981-1983 LFS	4% (not really applicable)
1983-1986 SEPH	N/A

Because of coverage differences for the LFS and SEPH, there is really no source to provide comparable trend data (particularly at the division level and for Major Group 01 - Federal administration).

**MG 01 - Federal Administration**

1981 Census	410,180
1986 Census	426,860
1981-1986	4%

All the growth is in Defence services, while Other federal administration remains virtually unchanged.

From the LFS and SEPH, only the "other" part of federal administration can be verified.

**Note:**

The LFS is similar in both the 1980 and 1970 classifications.

1970 SIC 1981-1983	2.7%
1980 SIC 1984-1986	0.1%
Overall	0.5%

This supports the census counts very well. Occupation results are consistent with the increase in defence, i.e. the ranks increased from

Occ. 6116 (officers)	17,105	to	18,170	
Occ. 6117 (enlisted)	58,310	to	65,300	
	<u>75,415</u>	to	<u>83,470</u>	10.7%

**MG 02 - Provincial Administration**

1981 Census	284,700
1986 Census	305,885
1981-1986	7%
1981-1983 LFS	4%
1983-1986 SEPH	0.4%

The trends are similar.

**MG 03 - Local Administration**

1981 Census	262,255
1986 Census	288,085
1981-1986	10%
1981-1983 LFS	7%
1983-1986 SEPH	3%

General trends are in agreement.

**MG 04 - Other Government Offices**

1981 Census	2,165
1986 Census	1,795
1981-1986	-17%
1981-1983 LFS	-12%

Counts are too small to be examined more closely.

**Division 12 - Industry Unspecified or Undefined**

1981 Census	493,835
1986 Census	521,875

A 6% increase in the Unspecified and Undefined. This is basically the same as the increase in the universe of persons who worked since January 1 of the previous year (1980 or 1985 as applicable).

1981 Census	13,129,260
1986 Census	13,857,775

An increase of 6%.

## VIII. HISTORICAL CONSIDERATIONS REGARDING CENSUS INDUSTRY DATA

This discussion is not designed to be exhaustive, but rather to answer some of the more frequently occurring questions that are asked by data users, both inside and outside the Bureau. Section B, covering STATPAK code for data retrieval of industry information, will be of interest only to those persons who have access to the census data bases. It is included in this document for the purpose of completeness, since many requests for clarification of industry concepts come from Statistics Canada staff accessing these data bases.

### A. Availability of Comparable Data

Although industry (or combined industry/occupation) data are available from census publications since the last century, comparable data to that processed by the 1986 Census are available only since 1951. The 1971 publication "Industry Trends, 1951-1971", Cat. No. 94-793, contains data from the 1951 and 1961 Censuses which have been manually converted to the 1970 SIC wherever possible and shown in comparison with 1971 Census data. This conversion of 1951 and 1961 data involved a variety of methods. In its simplest application, complete classes as found in the 1951 and 1961 SICs were added to or subtracted from other complete classes to appropriately reflect changes in the classification structure. When the classification changes were below the level of the class (i.e. the lowest level at which data were collected), other methods such as ratio estimations or adjustments based on industry/occupation combinations were applied. In addition to the tables of detailed industry data for Canada and the provinces, this publication also offers Canada and province data for selected industries cross-classified by a number of other variables such as age, level of schooling, marital status and ethnic origin. An appendix to the publication details the types of data conversions that were done.

It should be emphasized that this publication, or portions of the same tables published in other census industry trend bulletins (e.g., the 1986 publication "Industry Trends, 1951-1986", Cat. No. 93-152, contains an extract of the 1951, 1961 and 1971 data for industry divisions only) are the only sources of comparable data for 1951 and 1961. Unlike 1971, 1981 and 1986, there are no data files or data bases for 1951 and 1961 from which this comparable data can be retrieved. The data contained in the 1951 and 1961 publications for the respective census years were based on the 1951 and 1961 SICs as applicable and cannot be directly compared.

With the availability of bases for 1971, 1981 and 1986 Census data, each of which contains a grouping of industry data in the form of the 1970 Standard Industrial Classification, it is possible to retrieve data that are historically comparable. Due to slight changes made to census processing of the labour force activity variables (e.g., labour force, employment) in 1981 and 1986, industry data for these years are retrieved using a special variable for labour force activity that recreates as much as possible the 1971 definition.

There are several additional points to be considered when comparing census industry data.

- (a) With the exception of the 1981 and 1986 Census industry trend bulletins, no print publications from these census years contain historically comparable industry data. Although 1981 data were published using the 1970 SIC, the data for Division 12 (Industry Unspecified or Undefined) were redistributed among

industry major groups based on selected socio-economic conditions. This was not done in 1971, or 1986 when industry is regrouped according to the 1970 SIC. In 1986, the 1980 SIC was used in the majority of the printed tables.

- (b) Due to 1971 and 1981 data quality problems with 1970 SIC Classes 295 - Smelting and refining and 296 - Aluminum rolling, casting and extruding, these classes should be combined when data from these years are tabulated.
- (c) Because of 1971 data quality problems with 1970 SIC Classes 323 - Motor vehicle manufacturers and 325 - Motor vehicle parts and accessories manufacturers, these classes should be combined when data for 1971 is tabulated.
- (d) Because of 1986 data quality problems with 1970 SIC Classes 822 - Related health care institutions and 828 - Welfare organizations, these classes are combined on the 1986 data base and cannot be retrieved separately for that census year.
- (e) Because of considerations involved in the creation of the Industry Coding Manual, Classes 051 - Placer gold mines and 052 - Gold quartz mines are combined on the 1986 data base and cannot be retrieved separately for that census year.
- (f) Individual codes for type of farm (i.e. SIC codes 001-019) should be combined in 1971 and 1981 tabulations to the general entry "Farms" because of data quality problems associated with the more detailed level of coding. The individual codes are not available on the 1986 data base and cannot be retrieved separately for that census year.

## **B. STATPAK Code Required in Retrieval of Historical Data**

Since the 1971, 1981 and 1986 Census industry data on the basis of the 1970 SIC are stored in RAPID data base files from which data retrievals can be made, it is possible to create new cross-tabulations with other census variables. The following considerations apply to the code required when retrieving these industry data. They reflect the application of data quality constraints mentioned previously, as well as special requirements that have to be followed for the different census years. This section is intended only for those persons who have direct access to census data bases.

### **1. 1971 Census**

On the 1971 Census data base, the industry variable is stored as a 3-digit numeric, with codes ranging from 000 to 999. Division 12 - Industry Unspecified or Undefined, is coded 000. All respondents who do not have an industry value are coded 998 (e.g., persons in the labour force who have not held a job in the previous 17 months or persons less than 15 years of age).

Besides the regular farm codes 001, 003, 011, 013, 015, 017 and 019 shown in the 1970 version of the SIC, there is a code 005 - Farms, type unknown, which was used extensively in census coding when there was insufficient information to code to a specific farm type. It is recommended that codes 001 to 019 be combined in the general entry "Farms" in any data retrievals, since the quality of the individual code assignments are suspect.

As stated previously, codes 295 and 296 and codes 323 and 325 should be combined because of data quality problems with these codes in 1971. In addition



to these data quality problems, the publication on Industry Trends, 1951-1971 contained corrections to 1971 data due to coding errors in connection with provincial and local government highway maintenance workers. This correction was not made to the 1971 data when published in 1986, since the extent of 1981 and 1986 miscodes was unknown. If this data adjustment for 1971 is required, the adjustment can be made as follows:

- (a) Find the number of respondents in occupation Minor Group 871 - Excavating, paving and related occupations (8710-8719) in industry Class 931 - Provincial administration and industry Class 951 - Local administration.
- (b) Subtract those respondents coded to occupation code 8715, Railway sectionmen and trackmen from the counts in Step 1.
- (c) The two remaining counts from the calculation in step (b) are the numbers that must be subtracted from SIC Classes 931 and 951 respectively to make the data adjustment for the miscodes. These two counts are then added to SIC Class 516 - Highway and bridge maintenance to complete the adjustment.

To define the different populations or sub-populations to be used in 1971 Industry tabulations, the following points should be considered:

- (a) Use the universe POPTOTAL.
- (b) Combine the variables LFCODE1 and LFCODE2 as follows:

Employed	LFCODE1 2-4 and 9-10
Unemployed	LFCODE1 6 and 7
Labour force	LFCODE1 2-4 and 6-7 and 9-10
Experienced labour force	LFCODE1 2-4 and 6-7 and 9-10
and	LFCODE2 4 and 5 and 6
Not in labour force	LFCODE1 1 and 5
Population 15 years and over	LFCODE1 1-7 and 9-10

- (c) There are two ways to tabulate industry by the class of worker:
  - (i) Class of worker values can be taken directly from the variable WORKTYPE if it is not required to separate the category of self-employed in an incorporated business for addition with employees to form paid workers.

**NOTE:** The addition of the two categories is often done in census data retrievals or publications, since the self-employed in an incorporated business can be considered as receiving a salary from their own incorporated business (as they are by the System of National Accounts and other Statistics Canada surveys).

- (ii) When it is necessary to show separately the self-employed in an incorporated business (or include the counts in a total for paid workers), the variables WORKTYPE and INCORBUS (i.e. incorporation status of business) should be used to define any of the categories required in the following manner:

1 - Unpaid family worker	WORKTYPE 1
2 - Employees	WORKTYPE 5
3 - Self-employed incorporated (with paid help)	WORKTYPE 4 and INCORBUS 3
4 - Self-employed incorporated (without paid help)	WORKTYPE 3 and INCORBUS 3
5 - Self-employed unincorporated (with paid help)	WORKTYPE 4 and INCORBUS 1
6 - Self-employed unincorporated (without paid help)	WORKTYPE 3 and INCORBUS 1
7 - Paid workers	#2 + #3 + #4
8 - Self-employed unincorporated	#5 + #6
9 - Employers (including incorporated)	#3 + #5
10 - Own account (including incorporated)	#4 + #6

## 2. 1981 Census

### (a) General

On the 1981 Census data base, the industry variable is stored as a 5-character coded variable, with the exception of the code for "Not Applicable", which is NOT\_APP. Every other code begins with the letter I, followed by three numbers representing the 1970 SIC and a final character which is either 0 or I.

The second I indicates that this code represents a response that was originally INVALID, BLANK or NOT CODABLE and has now been assigned a code based on comparison of other socio-economic information for this respondent to a "donor" respondent with a valid industry code. This assignment took place in the imputation stage of E & I processing. Whenever 1981 industry data are being compared to other census years, these imputed codes have to be combined to recreate the INVALID, BLANK or NOT CODABLE category as Division 12 - Unspecified or Undefined, since it was only in 1981 that the imputation of data based on 1970 SIC codes was done. In 1971 no imputation was done. In 1986, only data based on the 1980 version of the SIC were imputed.

For 1981 Census data, there are only two aggregations of codes required for data quality reasons. The first is the combination of codes I2950 - Smelting and refining, and I2960 - Aluminum rolling, casting and extruding. The second is the aggregation of all farming codes (i.e. I0010, I0030, I0050, I0110, I0130, I0150, I0170 and I0190) into one general entry "Farms". Of course, when comparing to other census years, it is appropriate to combine 1981 data in those classes which are subject to data quality considerations in the respective census year being compared.

### (b) For Historically Comparable Retrievals

To define the different populations or subpopulations to be used for historically comparable 1981 Industry tabulations the following points should be considered:

(i) To select a universe

-Do NOT use the universe LABFOR, since there are restrictions in this universe based on values of the labour force variable LFTAG and this is not the variable to be used to define historically comparable labour force categories.

-Use the universe EDUCLFR if not in the labour force counts for institutional residents are required.

-Otherwise, use the universe EDUCLF.

(ii) To define the different labour categories, use the 1981 variable LF71 as follows:

Employed	LF71 1-5
Unemployed	LF71 8-10
Total labour force	LF71 1-5 and 8-10
Experienced labour force	LF71 1-5 and 8 and 10
Not in the labour force (including institutional residents)	LF71 6 and 7
Population 15 years and over (including institutional residents)	LF71 1-10

(iii) When cross-tabulating by class of worker if, as outlined in the discussion for 1971 data, it is required to include the category of persons self-employed in an incorporated business with paid workers, the variable COWD should be used. If this is not required, the variable COW can be used. The variable COWD is a derived variable that has been created from original class of worker and incorporation status values.

(c) Other Data Retrievals

Other than the 1981 industry trend bulletins, 1981 data were published based on a 1981 definition of the labour force and including imputed values at the major group level for responses which were originally INVALID, BLANK or NOT CODABLE.

To define the different populations or subpopulations to be used when comparing to this 1981 published data, the following points should be considered:

(i) To select a universe

-If only values for the labour force are required, use the universe LABFOR (which is restricted to the labour force as defined by the variable LFTAG).

-Use the universe EDUCLF if not in the labour force counts are required.

(ii) To define the different labour categories, use the variable LFTAG on the 1981 data base as follows:

Employed	LFTAG 1-4
Unemployed	LFTAG 5-17
Total labour force	LFTAG 1-17
Experienced labour force	LFTAG 1-10 and 14-15
Not in the labour force	LFTAG 18-21
Population 15 years and over (Excluding institutional residents)	LFTAG 1-21

### 3. 1986 Census

#### (a) General

On the 1986 Census data, base there are two variables available for retrieval of industry data. The variable to be used for historical comparisons is IND70, which is a coded variable based on the 1970 SIC. There is another variable which is often used for more current comparisons to other surveys. This variable, IND80, is a coded variable based on the 1980 version of the SIC.

#### (b) For Historically Comparable Retrievals

As mentioned, IND70 is based on the 1970 SIC. It is stored as a 5-character coded variable, with the exception of the code for "Not Applicable", which is NOT\_APP. Every other code begins with the letter I, followed by three numbers representing the 1970 SIC and a final number 0. Industry Division 12 - Industry Unspecified or Undefined is represented by the single code I0000.

On the 1986 Census data base, those data quality and processing problems that required combining of codes have been done directly on the data base. It is not possible to individually retrieve the components, as it is on the 1971 and 1981 Census data bases.

The combined codes are:

- I0010 - this represents all farm SICs (codes 001 to 019).
- I0500 - this represents the two classes for Gold mines (i.e. Class 051 - Placer gold mines and Class 052 - Gold quartz mines).
- I8220 - this represents two of the classes in Health and welfare services (i.e. Class 822 -Related health care institutions and Class 828 -Welfare organizations).

To define the different populations or subpopulations to be used for historically comparable 1986 industry tabulations, the following points (which are very similar to the ones discussed for 1981 retrievals with the exception that the actual code numbers are different) should be considered:

(i) To select a universe

- Do NOT use the universe LABFOR, since there are restrictions in this universe based on values of the labour force variable LFTAG and this is not the variable to be used to define historically comparable labour force categories.
- Use the universe EDUCLFR if not in the labour force counts for institutional residents are required.
- Otherwise, use the universe EDUCLF.

(ii) To define the different labour categories, use the 1986 variable LF71 as follows:

Employed	LF71 1-5
Unemployed	LF71 9-11
Total labour force	LF71 1-5 and 9-11
Experienced labour force	LF71 1-5 and 9 and 11
Not in the labour force (including institutional residents)	LF71 7 and 8
Population 15 years and over (including institutional residents)	LF71 1-5 and 7-11

- (iii) When cross-tabulating by class of worker if, as outlined in the discussion for 1971 data, it is required to include the category of persons self-employed in an incorporated business with paid workers, the variable COWD should be used. If this is not required, the variable COW can be used. The variable COWD is a derived variable that has been created from original class of worker and incorporation status values.

(c) Other Data Retrievals

Other than the 1986 industry trend bulletins, 1986 data were published based on the 1980 SIC (using the variable IND80) with a 1986 definition of the labour force and including imputed values at the major group level for responses which were originally INVALID, BLANK or NOT CODABLE. The variable IND80 is a 5-character coded variable, with the exception of the code for "Not Applicable" which is NOT\_APP. Every other code begins with the letter I, followed by three numbers representing the 1980 SIC and a final character which is either 0 or I.

As with the 1981 variable INDUSTRY, the second I represents a response that was originally INVALID, BLANK or NOT CODABLE and has now been assigned a code based on comparison of other socio-economic information for this respondent to a "donor" respondent with a valid industry code. As previously mentioned, this assignment takes place in the imputation stage of E & I.

Further information on which 1980 SIC codes are available is given in the second section of Chapter IV (Level of Detail Available in 1986 Industry Data Based on the 1980 Standard Industrial Classification).

To define the different populations or subpopulations to be used for the 1980 SIC, the following points should be considered:

(i) To select a universe:

- If only values for the labour force are required use the universe LABFOR (which is restricted to the labour force as defined by the variable LFTAG).
- Use the universe EDUCLF if not in the labour force counts are required.

(ii) To define the different labour categories, use the variable LFTAG on the 1986 data base as follows:

Employed	LFTAG 1-4
Unemployed	LFTAG 5-17
Total labour force	LFTAG 1-17
Experienced labour force	LFTAG 1-10 and 14-15
Not in the labour force	LFTAG 18-21
Population 15 years and over (excluding institutional residents)	LFTAG 1-21

**APPENDIX A**

**TABLES**





**Table 1. Distribution (Number and Percentage) of Imputed Values by Industry Major Group, Canada, 1986 Census**

	<b>Total (incl. imputed)</b>	<b>% dist.<sup>2</sup></b>	<b>Without imp.</b>	<b>% dist.<sup>2</sup></b>	<b>Imputed</b>	<b>% dist.<sup>2</sup></b>
<b>All Industries<sup>1</sup></b>	<b>13,858,490</b>	<b>100.0</b>	<b>13,336,365</b>	<b>100.0</b>	<b>522,125</b>	<b>100.0</b>
MG 01 - Agricultural Industries	544,965	3.9	528,355	4.0	16,610	3.2
MG 02 - Serv. Ind. Incidental to Agr.	23,880	0.2	23,035	0.2	845	0.2
MG 03 - Fishing & Trapping Ind.	54,070	0.4	51,920	0.4	2,145	0.4
MG 04 - Logging Industry	85,920	0.6	82,645	0.6	3,280	0.6
MG 05 - Forestry Serv. Industry	39,035	0.3	37,420	0.3	1,615	0.3
MG 06 - Mining Industries	84,465	0.6	81,580	0.6	2,885	0.6
MG 07 - Crude Pet. & Nat. Gas Ind.	61,925	0.4	60,465	0.5	1,460	0.3
MG 08 - Quarry & Sand Pit Ind.	12,025	0.1	11,590	0.1	435	0.1
MG 09 - Serv. Ind. Incid. to Mineral Extract.	46,400	0.3	44,700	0.3	1,700	0.3
MG 10 - Food Industries	278,070	2.0	267,990	2.0	10,075	1.9
MG 11 - Beverage Industries	40,625	0.3	39,270	0.3	1,355	0.3
MG 12 - Tobacco Products Ind.	8,260	0.1	7,975	0.1	285	0.1
MG 15 - Rubber Products Ind.	26,610	0.2	25,935	0.2	680	0.1
MG 16 - Plastic Products Industries	54,100	0.4	51,990	0.4	2,110	0.4
MG 17 - Leather & Allied Prod. Ind.	31,220	0.2	29,675	0.2	1,545	0.3
MG 18 - Primary Textile Industries	28,565	0.2	27,575	0.2	990	0.2
MG 19 - Textile Products Industries	44,335	0.3	42,440	0.3	1,895	0.4
MG 24 - Clothing Industries	159,300	1.1	151,040	1.1	8,260	1.6
MG 25 - Wood Industries	150,385	1.1	144,700	1.1	5,685	1.1
MG 26 - Furniture & Fixture Ind.	70,600	0.5	67,595	0.5	3,005	0.6
MG 27 - Paper & Allied Prod. Ind.	137,115	1.0	132,740	1.0	4,375	0.8
MG 28 - Printing, Pub. & Allied Ind.	177,775	1.3	170,445	1.3	7,335	1.4
MG 29 - Primary Metal Industries	131,595	0.9	127,575	1.0	4,020	0.8
MG 30 - Fab. Met. Prod. Ind. (Exc. Mac. & Transp. Equip. Ind.)	181,280	1.3	174,695	1.3	6,585	1.3
MG 31 - Mach. Ind. (Exc. Elect. Mach.)	89,650	0.6	86,660	0.6	2,990	0.6

**Note:** See footnotes at end of table.

**Table 1. Distribution (Number and Percentage) of Imputed Values by Industry Major Group, Canada, 1986**  
**Census - Continued**

	Total (incl. imputed)	% dist. <sup>2</sup>	Without imp.	% dist. <sup>2</sup>	Imputed	% dist. <sup>2</sup>
MG 32 - Transp. Equip. Industries	253,355	1.8	244,845	1.8	8,510	1.6
MG 33 - Electrical & Electronic Prod. Ind.	173,580	1.3	167,635	1.3	5,945	1.1
MG 35 - Non-Metallic Mineral Prod. Ind.	65,225	0.5	62,765	0.5	2,460	0.5
MG 36 - Refined Pet. & Coal Prod. Ind.	26,850	0.2	26,110	0.2	740	0.1
MG 37 - Chem. & Chem. Prod. Ind.	110,195	0.8	106,515	0.8	3,685	0.7
MG 39 - Other Manufacturing Industries	104,390	0.8	100,490	0.8	3,900	0.7
MG 40 - Bldg Dev. & Gen. Contracting Ind.	208,885	1.5	200,505	1.5	8,375	1.6
MG 41 - Ind. & Heavy (Engin.) Const. Ind.	106,755	0.8	102,445	0.8	4,305	0.8
MG 42 - Trade Contracting Ind.	484,240	3.5	466,690	3.5	17,550	3.4
MG 44 - Serv. Ind. Incidental to Const.	12,810	0.1	12,235	0.1	575	0.1
MG 45 - Transp. Industries	577,045	4.2	556,490	4.2	20,560	3.9
MG 46 - Pipeline Transport Industries	8,170	0.1	8,010	0.1	160	0.0
MG 47 - Storage & Warehousing Ind.	18,090	0.1	17,420	0.1	670	0.1
MG 48 - Communication Industries	290,920	2.1	281,520	2.1	9,400	1.8
MG 49 - Other Utility Industries	143,935	1.0	139,545	1.0	4,395	0.8
MG 50 - Farm Products Ind., Wholesale	15,940	0.1	15,270	0.1	670	0.1
MG 51 - Pet. Prod. Ind., Wholesale	28,370	0.2	27,340	0.2	1,030	0.2
MG 52 - Food, Bev., Drug & Tob. Ind., Wsale	92,515	0.7	89,065	0.7	3,450	0.7
MG 53 - Apparel & Dry Goods Ind., Wsale	20,145	0.1	19,140	0.1	1,005	0.2
MG 54 - Hhld Goods Industries, Wsale	21,695	0.2	20,890	0.2	805	0.2
MG 55 - Motor Veh., Parts & Access. Ind., Wsale	62,945	0.5	60,650	0.5	2,300	0.4
MG 56 - Metals, Hardw., Plum., Heat. & Bldg. Mat. Ind., Wsale	103,140	0.7	99,515	0.7	3,620	0.7
MG 57 - Mach., Equip. & Supplies Ind., Wsale	177,575	1.3	171,680	1.3	5,895	1.1
MG 59 - Other Prod. Ind., Wsale	98,485	0.7	94,570	0.7	3,915	0.8
MG 60 - Food, Bev. & Drug Ind., Retail	495,240	3.6	474,390	3.6	20,850	4.0
MG 61 - Shoe, Apparel, Fab. & Yarn Ind., Retail	174,830	1.3	166,890	1.3	7,940	1.5

Note: See footnote at end of table.

**Table 1. Distribution (Number and Percentage) of Imputed Values by Industry Major Group, Canada, 1986**  
Census - Concluded

	Total (incl. imputed)	% dist. <sup>2</sup>	Without imp.	% dist. <sup>2</sup>	Imputed	% dist. <sup>2</sup>
MG 62 - Hhld Furn., Appl. & Furnish. Ind., Retail	110,340	0.8	106,110	0.8	4,230	0.8
MG 63 - Auto. Vehicles, Parts & Acc. Ind., Sales & Serv.	379,525	2.7	365,655	2.7	13,875	2.7
MG 64 - General Retail Merch. Ind.	306,970	2.2	293,765	2.2	13,210	2.5
MG 65 - Other Retail Store Ind.	256,330	1.8	244,750	1.8	11,580	2.2
MG 69 - Non-Store Retail Industries	45,335	0.3	43,830	0.3	1,505	0.3
MG 70 - Deposit Accept. Intermed. Ind.	287,945	2.1	279,330	2.1	8,615	1.7
MG 71 - Consum. & Bus. Fin. Intermed. Ind.	15,085	0.1	14,650	0.1	435	0.1
MG 72 - Investment Intermediary Ind.	28,230	0.2	27,170	0.2	1,060	0.2
MG 73 - Insurance Industries	131,420	0.9	127,360	1.0	4,065	0.8
MG 74 - Other Fin. Intermed. Ind.	29,175	0.2	28,220	0.2	955	0.2
MG 75 - Real Estate Oper. Ind. (Exc. Dev.)	89,030	0.6	85,270	0.6	3,760	0.7
MG 76 - Ins. & Real Estate Agent Ind.	156,415	1.1	151,825	1.1	4,590	0.9
MG 77 - Business Service Industries	639,410	4.6	617,000	4.6	22,415	4.3
MG 81 - Fed. Govt Serv. Ind.	443,190	3.2	426,220	3.2	16,970	3.3
MG 82 - Prov. & Territorial Govt Serv. Ind.	306,780	2.2	296,435	2.2	10,345	2.0
MG 83 - Local Govt. Service Industries	299,955	2.2	288,175	2.2	11,775	2.3
MG 84 - Interntl & Other Extra-Ter. Govt Serv. Ind.	1,855	0.0	1,795	0.0	60	0.0
MG 85 - Educational Service Industries	907,420	6.5	879,775	6.6	27,645	5.3
MG 86 - Health & Social Service Ind.	1,125,360	8.1	1,085,430	8.1	39,930	7.6
MG 91 - Accommodation Service Ind.	248,880	1.8	236,560	1.8	12,320	2.4
MG 92 - Food & Beverage Service Ind.	682,365	4.9	649,685	4.9	32,680	6.3
MG 96 - Amusement & Recreational Serv. Ind.	186,950	1.3	177,875	1.3	9,075	1.7
MG 97 - Personal & Hhld Service Ind.	311,045	2.2	296,845	2.2	14,205	2.7
MG 98 - Membership Organization Ind.	158,700	1.1	148,185	1.1	10,515	2.0
MG 99 - Other Service Industries	273,270	2.0	261,825	2.0	11,440	2.2

<sup>1</sup> Included in this total are partial response Indian reserves. For this reason, the total will not agree with other totals throughout the report.

<sup>2</sup> Percentages are based on unrounded data.

Table 2. Population Who Worked since January 1, 1985 by Detailed Breakdown for Government Services Division, for Canada, Provinces and Territories

	Canada		Newfoundland		Prince Edw. Isl.		Nova Scotia		New Brunswick		Quebec		Ontario	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Impt Major Group 81	16,965	3.8	390	3.8	85	1.9	1,170	3.5	620	3.6	4,135	4.6	6,405	3.7
8110 Defence Serv.	148,240	33.0	3,095	29.8	1,740	38.5	22,195	67.1	8,265	48.6	23,890	26.5	46,330	26.8
8120 Protective Serv.	36,580	8.3	960	9.2	255	5.6	1,590	4.8	1,465	8.6	5,535	6.1	8,940	5.2
8130 Lab. Emp. Imm. Serv.	32,135	7.3	1,120	10.8	300	6.6	1,330	4.0	1,665	9.8	8,210	9.1	11,855	6.9
8140 For. Aff. Int. Ass.	7,170	1.6	20	0.2	10	0.2	45	0.1	40	0.2	1,440	1.6	5,140	3.0
8150 Gen. Admin. Serv.	130,685	29.5	2,770	26.6	495	11.0	2,965	9.0	2,665	15.7	35,660	39.5	59,430	34.4
8160 Human Res. Admin.	22,500	5.1	430	4.1	1,070	23.7	810	2.4	625	3.7	4,125	4.6	9,225	5.3
8170 Econo. Serv. Admin.	50,885	11.5	1,615	15.5	560	12.4	2,970	9.0	1,660	9.8	7,245	8.0	25,320	14.7
MG 81 - Federal	443,165	100.0	10,395	100.0	4,515	100.0	33,085	100.0	17,010	100.0	90,240	100.0	172,645	100.0
Impt Major Group 82	10,340	3.4	510	3.3	70	2.5	500	4.1	335	2.9	2,765	3.4	2,600	3.4
8220 Protective Serv.	52,365	17.1	1,415	9.1	230	8.4	1,440	11.9	1,455	12.6	13,755	17.0	19,540	25.3
8230 Lab. Empl. Serv.	10,810	3.5	215	1.4	65	2.4	235	1.9	290	2.5	4,640	5.7	2,095	2.7
8250 Gen. Admin. Serv.	92,525	30.2	2,495	16.1	675	24.5	2,920	24.1	3,275	28.4	33,255	41.1	20,570	26.6
8260 Human Res. Admin.	70,845	23.1	8,220	53.2	875	31.8	3,010	24.8	2,655	23.0	10,385	12.8	15,910	20.6
8270 Econo. Serv. Admin.	69,870	22.8	2,610	16.9	825	30.0	4,015	33.1	3,535	30.6	16,035	19.8	16,475	21.3
MG 82 - Provincial	306,760	100.0	15,465	100.0	2,750	100.0	12,120	100.0	11,540	100.0	80,835	100.0	77,200	100.0
Impt Major Group 83	11,715	3.9	310	4.3	35	5.0	315	3.8	200	3.2	3,035	4.0	3,795	3.4
8320 Protective Serv.	64,160	21.4	340	4.7	115	16.5	1,605	19.4	1,515	24.4	14,895	19.6	29,025	26.2
8350 Gen. Admin. Serv.	143,520	47.9	4,675	64.3	310	44.6	4,190	50.7	3,110	50.0	48,405	63.7	40,555	36.5
8360 Human Res. Admin.	62,080	20.7	1,190	16.4	185	26.6	1,465	17.7	1,010	16.2	7,180	9.4	28,980	26.1
8370 Econo. Serv. Admin.	18,275	6.1	745	10.2	55	7.9	685	8.3	380	6.1	2,495	3.3	8,630	7.8
MG 83 - Local	299,745	100.0	7,270	100.0	695	100.0	8,280	100.0	6,220	100.0	76,000	100.0	110,975	100.0
Impt Major Group 84	60	3.2	0	0.0	0	0.0	5	50.0	0	0.0	10	1.6	40	5.9
8410 Inter. & Ex-ter. Gov.	1,795	96.8	105	100.0	0	0.0	10	100.0	55	100.0	615	99.2	635	93.4
MG 84 - Inter. & Ex-ter. Gov.	1,855	100.0	100	100.0	0	0.0	10	100.0	55	100.0	620	100.0	680	100.0
Div. N - Gov. Serv. Ind.	1,051,530	0.0	33,225	0.0	7,960	0.0	53,470	0.0	34,825	0.0	247,700	0.0	361,500	0.0

**Table 2. Population Who Worked since January 1, 1985 by Detailed Breakdown for Government Services Division, for Canada, Provinces and Territories - Concluded**

	Manitoba		Saskatchewan		Alberta		British Columbia		Yukon		Northwest Terr.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Impt Major Group 81	775	3.8	600	4.4	950	2.9	1,700	3.7	55	5.6	75	4.3
8110 Defence Serv.	7,420	36.4	3,220	23.8	13,270	40.6	16,485	35.8	20	2.0	310	17.7
8120 Protective Serv.	1,835	9.0	2,875	21.2	4,690	14.4	7,845	17.1	230	23.5	360	20.6
8130 Lab. Emp. Imm. Serv.	1,230	6.0	950	7.0	1,820	5.6	3,510	7.6	60	6.1	90	5.2
8140 For. Aff. Int. Ass.	60	0.3	50	0.4	150	0.5	215	0.5	5	0.5	0	0.0
8150 Gen. Admin. Serv.	5,780	28.4	3,385	25.0	7,240	22.2	9,880	21.5	175	17.9	235	13.5
8160 Human Res. Admin.	1,135	5.6	915	6.8	1,675	5.1	1,930	4.2	205	20.9	365	20.9
8170 Econo. Serv. Admin.	2,125	10.4	1,535	11.3	2,875	8.8	4,430	9.6	230	23.5	315	18.1
MG 81 - Federal	20,360	100.0	13,535	100.0	32,670	100.0	45,990	100.0	980	100.0	1,745	100.0
Impt Major Group 82	600	3.7	460	3.2	1,365	3.2	1,015	3.4	30	2.5	95	3.4
8220 Protective Serv.	1,805	11.0	1,945	13.6	4,745	11.3	5,565	18.5	175	14.7	290	10.5
8230 Lab. Empl. Serv.	625	3.8	410	2.9	1,355	3.2	855	2.8	15	1.3	10	0.4
8250 Gen. Admin. Serv.	4,410	26.8	3,845	26.9	12,865	30.6	6,585	21.8	390	32.8	1,240	45.0
8260 Human Res. Admin.	5,075	30.9	4,195	29.4	10,185	24.2	9,480	31.4	285	23.9	570	20.7
8270 Econo. Serv. Admin.	3,920	23.9	3,420	24.0	11,540	27.4	6,655	22.1	295	24.8	545	19.8
MG 82 - Provincial	16,430	100.0	14,275	100.0	42,045	100.0	30,155	100.0	1,190	100.0	2,755	100.0
Impt Major Group 83	580	4.5	550	4.4	1,105	3.5	1,540	5.0	60	6.8	180	9.1
8320 Protective Serv.	2,360	18.4	2,100	16.9	6,075	19.4	6,045	19.6	25	2.8	65	3.3
8350 Gen. Admin. Serv.	5,590	43.6	6,355	51.1	14,660	46.8	13,550	43.9	615	69.9	1,485	75.0
8360 Human Res. Admin.	3,550	27.7	2,815	22.6	7,350	23.4	8,075	26.2	125	14.2	155	7.8
8370 Econo. Serv. Admin.	745	5.8	605	4.9	2,165	6.9	1,635	5.3	45	5.1	95	4.8
MG 83 - Local	12,830	100.0	12,430	100.0	31,355	100.0	30,850	100.0	880	100.0	1,980	100.0
Impt Major Group 84	0	0.0	0	0.0	0	0.0	5	2.4	0	0.0	0	0.0
8410 Inter. & Ex-ter. Gov.	20	100.0	10	100.0	135	100.0	200	95.2	10	100.0	5	100.0
MG 84 - Inter. & Ex-ter. Gov.	15	100.0	10	100.0	140	100.0	210	100.0	10	100.0	10	100.0
Div. N - Gov. Serv. Ind.	49,635	0.0	40,255	0.0	106,210	0.0	107,200	0.0	3,055	0.0	6,490	0.0

TABLE 3 COMPARISON OF 1980 SIC COUNTS FOR THE 1981 AND 1986 CENSUS AND MAY 1986 LF SURVEY. THE 1981 CENSUS DATA IS BASED ON A RECORDED SAMPLE OF 1981 RESPONSES. ALL RETRIEVALS ARE BASED ON THE LFS UNIVERSE, FOR PERSONS WHO WORKED SINCE JAN. 1ST OF THE PREVIOUS YEAR (1980 OR 1985 AS APPLICABLE). CENSUS MAJOR GROUP TOTALS FOR 1986 CONTAIN DATA THAT WAS IMPUTED TO THE RESPECTIVE MAJOR GROUPS. FOR 1981 DATA, THESE IMPUTED COUNTS SHOW IN THE TOTAL FOR ALL INDUSTRIES ONLY

NOTE : LFS FIGURES ROUNDED TO 1,000 AND SUPPRESSED LT 4,000

INDUSTRY	81 CENSUS TOTAL	LF SURVEY TOTAL	86 CENSUS TOTAL	% CHNG 86-81	% CHNG 86-LFS
CANADA					
ALL INDUSTRIES.....	12,889,525	14,076,000	13,676,205	6.1	-2.8
MAJOR GROUP 01 AGRICULTURAL INDS.....		571,000	542,630		-5.0
MAJOR GROUP 02 SERV INDS INCID TO AGR.....		27,000	23,805		-11.8
DIVISION A: AGRICULTURE.....	529,725	599,000	566,435	6.9	-5.4
031 FISHING INDUSTRIES.....		53,000	44,690		-13.7
032 SERVICES INCIDENTAL TO FISHING.....			4,715		
033 TRAPPING.....			635		
MAJOR GROUP 03 FISHING AND TRAPPING.....	42,650	56,000	51,945	21.8	-7.2
DIVISION B: FISHING AND TRAPPING.....	42,650	56,000	51,950	21.8	-7.2
MAJOR GROUP 04 LOGGING INDUSTRY.....	83,465	92,000	84,205	0.9	-8.5
MAJOR GROUP 05 FORESTRY SERVICES.....	24,555	24,000	37,405	52.3	55.9
DIVISION C: LOGGING AND FORESTRY.....	108,015	117,000	121,610	12.6	3.9
061 METAL MINES.....		75,000	49,410		-34.1
062 NON-METAL MINES.....		13,000	15,795		21.5
063 COAL MINES.....		15,000	13,810		-7.9
MAJOR GROUP 06 MINING INDUSTRIES.....	112,360	103,000	81,660	-27.3	-20.7
MAJOR GROUP 07 CRUDE PET AND NAT GAS.....	51,580	58,000	61,315	18.9	5.7
081 STONE QUARRIES.....			4,345		
082 SAND AND GRAVEL PITS.....		8,000	7,200		-10.0
MAJOR GROUP 08 QUARRY AND SAND PIT INDS.....	9,670	12,000	11,980	23.9	-0.2
091 SERV IND INCID PET AND NAT GAS.....	30,420	39,000	28,050	-7.8	-28.1
092 SERV IND INCIDENTAL TO MINING.....	12,150	9,000	16,080	32.3	78.7
MAJOR GROUP 09 SERV INDS INC TO MIN EXT.....	42,570	48,000	45,735	7.4	-4.7
DIVISION D: MINING.....	216,175	221,000	200,690	-7.2	-9.2
101 MEAT AND POULTRY PRODUCTS INDUSTR.....	52,460	50,000	51,550	-1.7	3.1
102 FISH PRODUCTS INDUSTRY.....	70,065	66,000	67,000	-4.4	1.5
103 FRUIT AND VEGETABLE INDUSTRIES.....	23,050	22,000	22,565	-9.9	2.6
104 DAIRY PRODUCTS INDUSTRIES.....	29,700	31,000	29,810	0.4	-3.8
105 FLOUR CEREAL AND FEED INDUSTRIES.....	13,575	18,000	19,950	47.0	10.8
106 VEGETABLE OIL MILLS (EXC CORN OIL).....	590		1,440	144.1	
107 BAKERY PRODUCTS INDUSTRIES.....	24,640	44,000	30,295	23.0	-31.1
108 SUGAR AND SUGAR CONFECTIONERY IND.....	14,505	13,000	13,890	-4.2	6.8
109 OTHER FOOD PRODUCTS INDUSTRIES.....	35,885	29,000	30,670	-14.5	5.8
MAJOR GROUP 10 FOOD INDUSTRIES.....	266,475	273,000	277,075	4.0	1.5
111 SOFT DRINK INDUSTRY.....	19,490	13,000	15,455	-20.7	18.9
112 DISTILLERY PRODUCTS INDUSTRY.....	5,170	5,000	5,315	2.8	6.3
113 BREWERY PRODUCTS INDUSTRY.....	18,585	20,000	16,235	-12.6	-18.8
114 WINE INDUSTRY.....	1,740		2,220	27.6	
MAJOR GROUP 11 BEVERAGE INDUSTRIES.....	44,985	40,000	40,570	-9.8	1.4
121 LEAF TOBACCO INDUSTRY.....	375		1,160	19.0	
122 TOBACCO PRODUCTS INDUSTRY.....	7,785	7,000	6,810	-12.5	-2.7
MAJOR GROUP 12 TOBACCO PRODUCTS INDS.....	8,760	10,000	8,255	-5.8	-17.4
131 TIRE AND TUBE INDUSTRY.....	18,190	19,000	15,080	-17.1	-20.6
132 RUBBER HOSE AND BELTING INDUSTRY.....	695		2,230	220.9	
139 OTHER RUBBER PRODUCTS INDUSTRIES.....	9,975	6,000	8,610	-13.7	43.5
MAJOR GROUP 15 RUBBER PRODUCTS INDS.....	28,865	26,000	26,600	-7.8	2.3
161 FOAMED AND EXPANDED PLASTICS PROD.....	4,010		4,820	20.2	
162 PLASTIC PIPE AND PIPE FITTINGS INDS.....	1,840		4,490	144.0	
163 PLASTIC FILM AND SHEETING INDS.....	1,220		5,090	317.2	
169 OTHER PLASTIC PRODUCTS IND.....	37,745	60,000	37,560	-0.5	-37.4
MAJOR GROUP 16 PLASTIC PRODUCTS INDS.....	44,820	68,000	54,060	20.6	-20.5
MAJOR GROUP 17 LEATHER AND ALLIED.....	34,290	36,000	31,010	-9.6	-13.9
181 MAN-MADE FIBRE AND FILAMENT YARN.....	9,220	6,000	5,700	-38.2	-5.0
182 SPUN YARN AND WOVEN CLOTH INDS.....	22,340	19,000	18,780	-13.9	-1.2
183 BROAD KNITTED FABRIC INDUSTRY.....	14,765		3,075	-79.2	
MAJOR GROUP 18 PRIMARY TEXTILE INDS.....	46,320	26,000	28,535	-38.4	9.7
191 NATURAL FIBRES PROCESS. AND FELT.....	1,640		1,525	-7.0	
192 CARPET, MAT AND RUG INDUSTRY.....	8,150	7,000	6,865	-15.8	-1.9
193 CANVAS AND RELATED PRODUCTS INDS.....	2,690		3,640	35.3	
199 OTHER TEXTILE PRODUCTS INDUSTRIES.....	38,240	36,000	30,360	-20.6	-15.7
MAJOR GROUP 19 TEXTILE PRODUCTS INDS.....	50,715	45,000	44,280	-12.7	-1.6
243 MEN'S AND BOY'S CLOTHING INDS.....	54,755	54,000	39,125	-28.5	-27.5
244 WOMEN'S CLOTHING INDUSTRIES.....	53,635	55,000	45,745	-14.7	-16.8
245 CHILDREN'S CLOTHING INDUSTRY.....	8,875	15,000	9,090	2.4	-39.4
249 OTHER CLOTHING AND APPAREL INDS.....	34,255	46,000	36,895	66.1	23.7
MAJOR GROUP 24 CLOTHING INDUSTRIES.....	151,520	170,000	159,110	5.0	-6.4
251 SAWMILLS PLAN. MILLS AND SHINGLE.....	93,710	77,000	80,655	-13.9	4.7
252 VENEER AND PLYWOOD INDUSTRIES.....	13,660	10,000	10,660	-22.0	6.6
254 SASH, DOOR AND OTHER MILLWORK INDS.....	33,850	43,000	34,345	2.1	-19.7
256 WOODEN BOX AND PELLET INDUSTRY.....	3,335	5,000	4,115	23.4	-17.7
258 COFFIN AND CASKET INDUSTRY.....	1,005		1,160	15.4	
259 OTHER WOOD INDUSTRIES.....	8,765	15,000	12,415	41.6	-17.2
MAJOR GROUP 25 WOOD INDUSTRIES.....	154,330	152,000	149,015	-3.4	-2.0
261 HOUSEHOLD FURNITURE INDUSTRIES.....	31,945	49,000	40,315	26.2	-17.7
264 OFFICE FURNITURE INDUSTRIES.....	8,065	9,000	10,395	28.9	15.5
269 OTHER FURN AND FIXTURE INDS.....	23,355	10,000	16,815	-28.0	68.1
MAJOR GROUP 26 FURN AND FIXTURE INDS.....	63,365	68,000	70,515	11.3	3.7
271 PULP AND PAPER INDUSTRIES.....	98,545	91,000	93,870	-4.7	3.2
272 ASPHALT ROOFING INDUSTRY.....	1,800		1,170	-35.0	
273 PAPER BOX AND BAG INDUSTRIES.....	30,035	16,000	19,385	-35.5	21.2
279 OTHER CONVERTED PAPER PRODUCTS INDS.....	20,975	18,000	18,125	-13.6	0.7

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NOTE : LFS FIGURES ROUNDED TO 1,000 AND SUPPRESSED LT 4,000

INDUSTRY	81 CENSUS	LF SURVEY	86 CENSUS	% CHNG	% CHNG
	TOTAL	TOTAL	TOTAL	86-81	86-LFS
MAJOR GROUP 27 PAPER AND ALLIED PRODS.....	151,350	127,000	136,880	-9.6	7.8
281 COMMERCIAL PRINTING INDUSTRY.....	70,315	94,000	78,680	11.9	-16.3
282 PLATEMAK TYPESET AND BINDERY INDS.....	24,100	21,000	24,150	0.2	15.0
283 PUBLISHING INDUSTRIES.....	16,375	28,000	21,770	32.9	-22.2
284 COMBINED PUBLISHING AND PRINTING.....	47,975	43,000	45,505	-5.1	5.8
MAJOR GROUP 28 PRINT, PUBL AND ALLIED.....	158,760	186,000	177,335	11.7	-4.6
291 PRIMARY STEEL INDUSTRIES.....	73,865	83,000	58,680	-20.6	-23.3
292 STEEL PIPE AND TUBE INDUSTRY.....	7,490	8,000	8,050	7.5	0.6
294 IRON FOUNDRIES.....	10,485	6,000	10,020	-4.0	67.0
295 NON-FERROUS METAL SMELT AND REFI.....	21,805	27,000	31,925	46.4	18.2
296 ALUMINUM ROLL CAST AND EXTRUD INDS.....	20,185	11,000	8,720	-56.8	-20.7
297 COPPER AND COPP ALL ROLL CAST N E.....	3,965		3,250	-18.0	
299 OTH ROL CAST AND EXTR NON-FER MET.....	6,840		6,805	-0.5	
MAJOR GROUP 29 PRIMARY METAL INDS.....	144,585	137,000	131,410	-9.1	-4.1
301 POWER BOIL AND HEAT EXCH INDS.....	5,740		5,500	-4.2	
302 FABRICATED STRUCTURAL METAL PRODS.....	25,235	12,000	17,790	-29.5	48.2
303 ORNAMENTAL AND ARCHIT METAL PROD.....	20,685	14,000	18,090	-12.5	29.2
304 STAMP PRESS AND COAT MET PROD.....	43,355	33,000	34,245	-21.0	3.8
305 WIRE AND WIRE PRODUCTS INDUSTRIES.....	19,945	17,000	16,010	-19.7	-5.8
306 HARDWARE, TOOL AND CUTLERY INDS.....	28,210	28,000	27,115	-3.9	-3.2
307 HEATING EQUIPMENT INDUSTRY.....	4,970	7,000	5,625	13.2	-19.6
308 MACHINE SHOP INDUSTRY.....	27,125	26,000	28,325	4.4	8.9
309 OTHER METAL FABRICATING INDS.....	25,305	24,000	21,845	-13.7	-9.0
MAJOR GROUP 30 FAB METAL PRODUCTS INDS.....	200,560	164,000	181,090	-9.7	10.4
311 AGRICULTURAL IMPLEMENT INDUSTRY.....	19,930	15,000	11,235	-43.6	-25.1
312 COMM REFRIG AND AIR COND EQUIP.....	5,230	5,000	5,675	8.5	13.5
319 OTHER MACH AND EQUIP INDS.....	78,285	59,000	69,695	-11.0	18.1
MAJOR GROUP 31 MACHINERY INDUSTRIES.....	103,450	80,000	89,565	-13.4	12.0
321 AIRCRAFT AND AIRCRAFT PARTS INDS.....	40,585	41,000	36,885	-9.1	-10.0
323 MOTOR VEHICLE INDUSTRY.....	55,880	72,000	66,430	18.9	-7.7
324 TRUCK AND BUS BODY AND TRAILER INDS.....	19,055	15,000	16,215	-14.9	8.1
325 MOTOR VEHICLE PARTS AND ACCESSORIES.....	64,645	94,000	90,755	40.4	-3.5
326 RAILROAD ROLLING STOCK INDS.....	14,025	8,000	9,115	-35.0	13.9
327 SHIPBUILDING AND REPAIR INDS.....	17,765	17,000	15,250	-14.2	-10.3
328 BOATBUILDING AND REPAIR INDS.....	8,085	11,000	7,345	-9.2	-33.2
329 OTHER TRANSP EQUIP INDS.....	1,050	8,000	2,620	149.5	-67.2
MAJOR GROUP 32 TRANSPORT EQUIP INDS.....	221,095	265,000	253,065	14.5	-4.5
331 SMALL ELECTRICAL APPLI INDS.....	8,900	17,000	5,000	-43.8	-70.6
332 MAJOR APPLI INDS (ELECT AND NON-E).....	11,715	15,000	11,280	-3.7	-24.8
333 ELECTRIC LIGHTING INDUSTRIES.....	10,665	10,000	9,695	-9.1	-3.0
334 REC PLAYER, RADIO AND TV RECEIVE.....	4,550	7,000	4,070	-10.5	-41.9
335 COMM AND OTH ELEC EQUIP INDS.....	53,550	75,000	63,065	17.8	-15.9
336 OFF STORE AND BUS MACHINE INDS.....	22,250	34,000	27,620	24.1	-18.8
337 ELECTRICAL INDUSTRIAL EQUIP INDS.....	28,505	17,000	22,700	-20.4	33.5
338 COMM AND ENERGY WIRE AND CABLE I.....	9,220	7,000	10,780	16.9	54.0
339 OTHER ELECTRICAL PRODUCTS INDS.....	17,540	15,000	13,350	-23.9	-11.0
MAJOR GROUP 33 ELEC AND ELECTRONIC PROD.....	166,900	195,000	173,480	3.9	-11.0
351 CLAY PRODUCTS INDUSTRIES.....	7,265	5,000	4,965	-31.7	-0.7
352 HYDRAULIC CEMENT INDUSTRY.....	5,885	6,000	5,510	-6.4	-8.2
354 CONCRETE PRODUCTS INDUSTRIES.....	12,845	15,000	10,090	-21.4	-32.7
355 READY-MIX CONCRETE INDUSTRY.....	11,760	10,000	11,830	0.6	18.3
356 GLASS AND GLASS PRODUCTS INDS.....	16,590	20,000	15,460	-6.8	-22.7
357 ABRASIVES INDUSTRY.....	3,040		2,080	-31.6	
358 LIME INDUSTRY.....	1,375		840	-38.9	
359 OTHER NON-METAL MIN PROD INDS.....	14,155	10,000	11,840	-16.4	18.4
MAJOR GROUP 35 NON-METALLIC MIN PRODS.....	72,920	68,000	65,055	-10.8	-4.3
361 REFINED PETROLEUM INDUSTRIES.....	26,345	23,000	24,890	-5.5	8.2
369 OTH. PETROLEUM AND COAL PRODS IND.....	1,630		1,170	-29.1	
MAJOR GROUP 36 REF PET AND COAL PRODS.....	28,000	27,000	26,790	-4.3	-0.8
371 INDUSTRIAL CHEMICAL INDS, N.E.C.....	30,280	28,000	25,610	-15.4	-8.5
372 AGRICULTURAL CHEMICAL INDUSTRIES.....	4,515	7,000	7,890	74.8	12.7
373 PLASTIC AND SYNTHETIC RESIN INDS.....	6,960		8,000	14.9	
374 PHARMACEUTICAL AND MEDICINE INDS.....	17,485	27,000	17,650	0.9	-34.6
375 PAINT AND VARNISH INDUSTRY.....	8,635	11,000	8,405	-2.9	-23.6
376 SOAP AND CLEANING COMPOUNDS INDS.....	6,680	8,000	8,320	24.6	4.0
377 TOILET PREPARATIONS INDUSTRY.....	8,845	8,000	10,500	18.7	31.3
379 OTHER CHEMICAL PRODUCTS INDUSTRY.....	18,265	19,000	20,105	10.1	5.8
MAJOR GROUP 37 CHEM AND CHEM PRODS INDS.....	101,690	110,000	110,150	8.3	0.1
391 SCIENT AND PROFES EQUIP INDS.....	30,740	21,000	25,780	-16.1	22.8
392 JEWEL AND PRECIOUS METAL INDS.....	9,005	13,000	9,385	4.2	-27.8
393 SPORTING GOODS AND TOY INDS.....	15,885	17,000	14,975	-5.7	-11.9
397 SIGN AND DISPLAY INDUSTRY.....	8,675	9,000	10,650	22.8	18.3
399 OTHER MANUFACTURED PRODUCTS INDS.....	29,680	35,000	39,520	33.2	12.9
MAJOR GROUP 39 OTHER MANUFACTURING INDS.....	93,985	95,000	104,190	10.9	9.7
DIVISION E: MANUFACTURING.....	2,337,725	2,366,000	2,338,105	0.0	-1.2
401 RESIDENTIAL BUILD AND DEVELOP.....	48,185	195,000	153,710	219.0	-21.2
402 NON-RESIDENTIAL BUILD AND DEVELOP.....	141,255	38,000	42,985	-69.6	13.1
MAJOR GROUP 40 BUILD, DEV AND GEN CONT.....	189,440	233,000	204,580	8.0	-12.2
411 INDUSTR CONSTR (OTH THAN BUILD).....	6,935	23,000	26,115	276.6	13.5
412 HIGHWAY AND HEAVY CONSTRUCTION.....	123,700	78,000	75,065	-40.3	-3.8
MAJOR GROUP 41 IND AND HEAVY CONST INDS.....	132,640	101,000	105,335	-20.6	4.3
421 SITE WORK.....	40,995	82,000	78,720	92.0	-4.0
422 STRUCTURAL AND RELATED WORK.....	26,285	38,000	53,750	104.5	41.4
423 EXTERIOR CLOSE-IN WORK.....	55,620	67,000	68,265	22.7	1.9
424 PLUMB, HEAT AND AIR COND, MECH.....	58,520	66,000	64,470	10.2	-2.3
425 MECHANICAL SPECIALTY WORK.....	9,625	12,000	18,055	87.6	50.5

TABLE 3 COMPARISON OF 1980 SIC COUNTS FOR THE 1981 AND 1986 CENSUS AND MAY 1986 LF SURVEY. THE 1981 CENSUS DATA IS BASED ON A RECORDED SAMPLE OF 1981 RESPONSES. ALL RETRIEVALS ARE BASED ON THE LFS UNIVERSE, FOR PERSONS WHO WORKED SINCE JAN. 1ST OF THE PREVIOUS YEAR (1980 OR 1985 AS APPLICABLE). CENSUS MAJOR GROUP TOTALS FOR 1986 CONTAIN DATA THAT WAS IMPUTED TO THE RESPECTIVE MAJOR GROUPS. FOR 1981 DATA, THESE IMPUTED COUNTS SHOW IN THE TOTAL FOR ALL INDUSTRIES ONLY

NOTE : LFS FIGURES ROUNDED TO 1,000 AND SUPPRESSED LT 4,000

INDUSTRY	81 CENSUS	LF SURVEY	86 CENSUS	% CHNG	% CHNG
	TOTAL	TOTAL	TOTAL	86-81	86-LFS
426 ELECTRICAL WORK.....	59,950	61,000	63,355	5.7	3.9
427 INTERIOR AND FINISHING WORK.....	71,570	113,000	97,720	36.5	-13.5
429 OTHER TRADE WORK.....	139,685	57,000	20,095	-85.6	-64.7
MAJOR GROUP 42 TRADE CONTRACTING INDS.....	462,250	495,000	481,715	4.2	-2.7
441 PROJECT MANAGEMENT, CONSTRUCTION.....	6,243		4,630	-23.9	
449 OTH SERV INCIDENTAL TO CONSTRUC.....	6,475	7,000	7,385	17.1	8.4
MAJOR GROUP 44 SERV INDS INCID TO CONST.....	12,720	10,000	12,790	0.6	27.9
DIVISION F: CONSTRUCTION.....	737,040	839,000	804,420	0.9	-4.1
451 AIR TRANSPORT INDUSTRIES.....	57,770	65,000	58,345	1.0	-10.2
452 SERV IND INCIDENTAL TO AIR TRANS.....	11,210	5,000	13,645	21.7	172.9
453 RAILWAY, TRANSPORT AND REL SERV.....	115,960	101,000	99,775	-14.0	-1.2
454 WATER TRANSPORT INDUSTRIES.....	27,220	29,000	21,740	-20.1	-25.0
455 SERV IND INCIDENTAL TO WATER TRANS.....	13,740	17,000	16,820	22.4	-1.1
456 TRUCK TRANSPORT INDUSTRIES.....	155,285	194,000	176,045	13.4	-9.3
457 PUBLIC PASSENGER TRANSIT SYSTEMS INDS...	63,785	77,000	75,545	18.4	-1.9
458 OTHER TRANSPORTATION INDUSTRIES.....	34,010	42,000	35,895	5.5	-14.5
459 OTH SERV IND INCIDENTAL TO TRANSPORT....	37,985	34,000	54,185	42.6	39.4
MAJOR GROUP 45 TRANSPORTATION INDS.....	516,965	564,000	572,080	10.7	1.4
MAJOR GROUP 46 PIPELINE TRANSPORT INDS.....	6,835	5,000	8,110	18.7	62.2
471 GRAIN ELEVATOR INDUSTRY.....	11,075	9,000	5,900	-46.7	-34.4
479 OTHER STORAGE AND WAREHOUSING INDS.....	12,670	7,000	11,490	-9.3	64.1
MAJOR GROUP 47 STORAGE AND WAREHOUSING.....	23,740	16,000	18,055	-23.9	12.8
DIVISION G: TRANSPORTATION AND STORAGE.....	547,540	584,000	598,245	9.3	2.4
481 TELECOMMUNICATION BROADCASTING INDS.....	45,025	54,000	52,120	15.8	-3.5
482 TELECOMMUNICATION CARRIERS INDS.....	133,690	126,000	116,175	-13.1	-7.8
483 OTHER TELECOMMUNICATION INDUSTRIES.....	1,595	6,000	1,885	-13.2	-76.9
484 POSTAL AND COURIER SERVICE INDS.....	95,985	119,000	110,435	15.1	-7.2
MAJOR GROUP 48 COMMUNICATION INDUSTRIES.....	276,295	305,000	289,380	4.7	-5.1
491 ELECTRICAL POWER SYSTEMS INDS.....	37,485	108,000	94,775	-2.8	-12.2
492 GAS DISTRIBUTION SYSTEMS.....	15,015	14,000	16,415	9.3	17.2
493 WATER SYSTEMS INDUSTRY.....	3,365	5,000	3,490	1.3	89.8
499 OTHER UTILITY INDUSTRIES N.E.C.....	13,785	14,000	17,845	29.9	27.3
MAJOR GROUP 49 OTHER UTILITY INDUSTRIES.....	135,595	141,000	142,780	5.3	1.3
DIVISION H: COMMUNICATION AND OTHER UTIL.....	411,890	446,000	432,165	4.9	-3.1
MAJOR GROUP 50 FARM PRODS, WHOLESALE.....	11,165	16,000	15,895	42.4	-0.7
MAJOR GROUP 51 PET PRODS, WHOLESALE.....	39,825	31,000	28,185	-16.7	-9.1
521 FOOD, WHOLESALE.....	59,045	84,000	65,430	10.8	-22.1
522 BEVERAGES, WHOLESALE.....	2,345	6,000	6,755	165.4	12.6
523 DRUGS AND TOILET PREP, WHOLESALE.....	11,375	19,000	13,490	18.6	-29.0
524 TOBACCO PRODUCTS, WHOLESALE.....	3,025		3,280	8.4	
MAJOR GROUP 52 FOOD, BEV, DRUG, TOB, W.....	75,390	110,000	92,375	21.6	-16.0
531 APPAREL, WHOLESALE.....	15,835	16,000	13,150	-17.0	-17.8
532 DRY GOODS, WHOLESALE.....	2,815	8,000	5,980	112.4	-23.2
MAJOR GROUP 53 APPAREL AND DRY GOODS, W.....	18,650	23,000	20,140	8.0	-12.4
541 ELEC. AND ELECTRO. HMLD APP AND PA.....	11,930	11,000	9,330	-21.8	-15.2
542 HOUSEHOLD FURNITURE, WHOLESALE.....	1,270		2,060	62.2	
543 HOUSEHOLD FURNISHINGS, WHOLESALE.....	9,640	9,000	9,480	-1.7	5.3
MAJOR GROUP 54 HOUSEHOLD GOODS INDS, W.....	22,840	23,000	21,680	-5.1	-5.7
551 MOTOR VEHICLES, WHOLESALE.....	21,490	17,000	14,720	-31.5	-13.4
552 MOTOR VEH PARTS AND ACC, WHOLESALE.....	21,430	28,000	43,840	113.9	63.7
MAJOR GROUP 55 MOTOR VEH, PARTS, ACC, W.....	42,925	45,000	62,845	46.4	39.7
561 METAL AND METAL PROD, WHOLESALE.....	13,190	9,000	13,500	2.4	50.0
562 HDWR AND PLUMB HEAT EQUIP AND.....	25,495	24,000	24,370	-3.6	2.4
563 LUMBER AND BUILDING MAT, WHOLESALE.....	68,785	75,000	61,080	-11.2	-18.6
MAJOR GROUP 56 METAL, HDWR, PLUMB, W.....	107,465	108,000	102,725	-4.4	-4.9
571 FARM MACH, EQUIP AND SUP, WHOLESALE.....	25,925	23,000	21,790	-15.9	-3.3
572 CONST FOR AND MIN MACH EQUIP.....	7,675	17,000	20,360	165.3	19.8
573 IND MACH EQUIP AND SUPP WHOLESALE.....	12,770	36,000	33,025	158.6	-8.3
574 ELEC AND ELECTRO MACH AND SUP.....	38,205	41,000	43,685	14.3	6.5
579 OTH MACH, EQUIP AND SUP, WHOLESALE.....	88,220	61,000	52,475	-40.5	-14.0
MAJOR GROUP 57 MACH, EQUIP, AND SUPP, W.....	172,795	179,000	177,190	2.5	-1.0
591 WASTE MATERIALS, WHOLESALE.....	14,275	18,000	13,940	-2.3	-22.6
592 PAPER AND PAPER PRODUCTS, WHOLESALE.....	13,135	12,000	13,090	14.9	25.7
593 AGRICULTURAL SUPPLIES, WHOLESALE.....	2,850	14,000	11,015	286.5	-21.3
594 TOYS, AMUSEMENT AND SPORT GOODS.....	4,365	7,000	7,310	67.5	4.4
595 PHOT EQUIP AND MUS AND INSTR SU.....	2,490		3,730	49.8	
596 JEWEL AND WATCHES, WHOLESALE.....	1,495		3,125	109.0	
597 INDUSTR AND HOUSEHOLD CHEM, WHOLESALE...	4,135	10,000	7,700	85.3	-23.0
598 GENERAL MERCHANDISES, WHOLESALE.....	6,845	6,000	2,710	-60.4	-34.8
599 OTHER PRODUCTS N.E.C., WHOLESALE.....	56,965	35,000	29,805	-47.7	-14.8
MAJOR GROUP 59 OTHER PRODS INDS, W.....	106,365	107,000	98,330	-7.7	-8.1
DIVISION I: WHOLESALE TRADE.....	592,230	643,000	619,360	4.6	-3.7
601 FOOD STORES.....	314,820	380,000	374,325	18.9	-1.5
602 LIQUOR, WINE AND BEER STORES.....	20,630	24,000	22,660	9.7	-5.6
603 PRESCRIP, DRUGS AND PAT MEDICINE.....	61,415	73,000	75,525	23.0	3.5
MAJOR GROUP 60 FOOD, BEV AND DRUG, RET.....	396,890	477,000	493,060	24.2	3.4
611 SHOE STORES.....	22,430	24,000	25,515	13.7	6.3
612 MEN'S CLOTHING STORES.....	23,195	18,000	22,995	-0.9	27.7
613 WOMEN'S CLOTHING STORES.....	54,550	64,000	61,230	12.2	-4.3
614 CLOTHING STORES, N.E.C.....	40,180	56,000	43,760	8.9	-21.9
615 FABRIC AND YARN STORES.....	7,325	17,000	13,030	77.9	-23.4
MAJOR GROUP 61 SHOE, APP, FAB, YARN, R.....	147,695	181,000	174,420	18.1	-3.6
621 HOUSEHOLD FURNITURE STORES.....	28,715	32,000	36,940	28.6	15.4
622 APPLIANCE, TV, RADIO AND STEREO.....	30,640	63,000	46,505	51.8	-26.2
623 HOUSEHOLD FURNISHINGS STORES.....	18,320	30,000	22,435	22.6	-25.1
MAJOR GROUP 62 HSLD FURN AND APPLIAN, R.....	77,675	125,000	110,100	41.7	-11.9



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NOTE : LFS FIGURES ROUNDED TO 1,000 AND SUPPRESSED LT 4,000

INDUSTRY	81 CENSUS		LF SURVEY		86 CENSUS		% CHNG	
	TOTAL		TOTAL		TOTAL		86-81	86-LFS
631 AUTOMOBILE DEALERS.....	101,935		117,000		108,055		6.0	-7.6
632 RECREATIONAL VEHICLE DEALERS.....	4,875		17,000		12,055		147.3	-29.1
633 GASOLINE SERVICE STATIONS.....	67,840		94,000		84,500		24.6	-10.1
634 AUTO. PARTS AND ACCESSORIES STORE.....	48,850		59,000		31,135		-36.3	-47.2
635 MOTOR VEHICLE REPAIR SHOPS.....	96,180		120,000		116,930		21.6	-2.6
639 OTHER MOTOR VEHICLE SERVICES.....	24,175		12,000		11,610		-52.0	-3.2
MAJOR GROUP 63 AUTO VEN. PART. ACC. R.....	343,810		419,000		377,925		9.9	-9.8
MAJOR GROUP 64 GENERAL RETAIL MERCH.....	329,885		298,000		303,685		-7.9	1.9
651 BOOK AND STATIONERY STORES.....	17,540		27,000		20,985		19.6	-22.3
652 FLORISTS, LAWN AND GARDEN CENTRES.....	17,750		29,000		24,860		40.1	-14.3
653 HDWR. PAINT, GLASS AND WALLPAPER.....	35,695		42,000		41,035		15.1	-2.2
654 SPORTING GOODS AND BICYCLE SHOPS.....	14,935		25,000		21,630		44.8	-13.5
655 MUSICAL INSTRUMENTS AND REC STOR.....	7,885		13,000		10,420		32.1	-19.8
656 JEWELLERY STORES AND WATCH, JEW REP.....	22,970		31,000		27,785		21.0	-10.4
657 CAMERA AND PHOTO SUPPLY STORES.....	4,325		6,000		7,020		62.3	17.0
658 TOY, HOBBY, NOVELTY AND SOUV STORES.....	19,270		43,000		31,495		63.4	-26.8
659 OTHER RETAIL STORES.....	97,065		65,000		58,385		-39.8	-10.2
MAJOR GROUP 65 OTHER RETAIL STORES.....	237,440		281,000		255,140		7.5	-9.2
691 VENDING MACHINE OPERATORS.....	2,545		5,000		4,935		94.7	-0.9
692 DIRECT SELLERS.....	24,590		66,000		38,755		57.6	-41.3
MAJOR GROUP 69 NON-STORE RETAIL INDS.....	27,135		71,000		45,205		66.6	-36.3
DIVISION J: RETAIL TRADE.....	1,360,535		1,852,000		1,759,535		12.8	-5.0
MAJOR GROUP 70 DEPOSIT ACCEPT INTERMED.....	270,280		275,000		287,165		6.2	4.4
MAJOR GROUP 71 CONS AND BUS FIN INTERM.....	17,215		18,000		15,055		-12.5	-16.4
MAJOR GROUP 72 INVESTMENT INTERMEDIARY.....	30,155		15,000		28,140		-6.7	87.6
MAJOR GROUP 73 INSURANCE INDUSTRIES.....	114,985		148,000		131,245		14.1	-11.3
MAJOR GROUP 74 OTHER FIN INTERMEDIARY.....	22,895		35,000		29,130		27.2	-16.8
DIVISION K: FINANCE AND INSURANCE.....	455,535		491,000		490,740		7.7	-0.1
751 OPERATORS OF BUILDINGS AND DWELLINGS.....	79,985		91,000		82,140		2.7	-9.7
759 OTHER REAL ESTATE OPERATORS.....	375				2,455		554.7	
MAJOR GROUP 75 REAL ESTATE OPERATOR.....	80,365		93,000		88,285		9.9	-5.1
MAJOR GROUP 76 INS AND REAL EST AGENT.....	119,285		135,000		156,090		30.9	15.6
DIVISION L: REAL ESTATE OPER AND INS AGENT.....	199,645		228,000		244,375		22.4	7.2
771 EMPLOYMENT AGENCIES AND PERS SUP.....	28,455		54,000		39,240		37.9	-27.3
772 COMPUTER AND RELATED SERVICES.....	33,040		53,000		63,735		93.0	20.3
773 ACCOUNTING AND BOOKKEEPING SERVICES.....	67,055		87,000		80,850		19.8	-7.6
774 ADVERTISING SERVICES.....	26,785		46,000		35,920		34.1	-21.9
775 ARCHITECT, ENG AND OTHER SC AND TECH.....	121,945		136,000		128,230		5.2	-5.7
776 OFFICES OF LAWYERS AND NOTARIES.....	78,745		91,000		94,275		19.7	3.6
777 MANAGEMENT CONSULTING SERVICES.....	31,025		26,000		39,615		27.7	52.4
779 OTHER BUSINESS SERVICES.....	124,590		126,000		133,970		7.5	6.3
MAJOR GROUP 77 BUSINESS SERVICE INDS.....	511,645		619,000		637,605		24.6	3.0
DIVISION M: BUSINESS SERVICE INDUSTRIES.....	511,645		619,000		637,610		24.6	3.0
811 FEDERAL DEFENCE SERVICES.....			50,000		67,485			35.0
812 OTHER FEDERAL SERVICES.....			269,000		35,835			-86.7
MAJOR GROUP 81 FEDERAL GOV'T SERV INDS.....	332,025		319,000		358,035		7.8	12.2
MAJOR GROUP 82 PROV AND TER GOV'T SERV.....	280,750		316,000		301,855		7.5	-4.5
MAJOR GROUP 83 LOCAL GOV'T SERV INDS.....	249,355		314,000		282,585		13.3	-10.0
MAJOR GROUP 84 INT AND OTH GOV'T SERV.....	2,135				1,790		-16.2	
DIVISION N: GOVERNMENT SERVICE INDUSTRIES.....	864,265		952,000		944,265		9.3	-0.8
851 ELEMENTARY AND SECOND EDUCATION.....	548,185		582,000		567,020		3.4	-2.6
852 POST-SECONDARY NON-UNIV EDUC.....	79,545		110,000		92,160		15.9	-16.2
853 UNIVERSITY EDUCATION.....	153,000		161,000		164,925		7.8	2.4
854 LIBRARY SERVICES.....	16,230		24,000		21,355		31.6	-11.0
855 MUSEUMS AND ARCHIVES.....	4,230		14,000		13,030		208.0	-6.9
859 OTHER EDUCATIONAL SERVICES.....	9,080		11,000		13,455		48.2	22.3
MAJOR GROUP 85 EDUCATIONAL SERVICE INDS.....	810,265		902,000		898,800		10.9	-0.4
DIVISION O: EDUCATIONAL SERVICE INDUSTRIES.....	810,265		902,000		898,795		10.9	-0.4
861 HOSPITALS.....	321,065		533,000		529,645		1.6	-0.6
862 OTH INSTITUTIONAL HEALTH AND SOC.....	119,255		178,000		177,880		49.2	-0.1
863 NON-INSTITUTIONAL HEALTH SERVICES.....	12,000		25,000		36,395		203.3	45.6
864 NON-INSTITUTIONAL SOCIAL SERVICES.....	130,675		170,000		135,850		4.0	-20.1
865 OFFICES OF PHYSICIANS, SURGEONS, DENT.....	111,435		139,000		132,670		19.1	-4.6
866 OFFICE OF OTHER HEALTH PRACT.....	21,210		31,000		30,525		43.9	-1.5
867 OFFICES OF SOCIAL SERVICES PRACTI.....	2,925				2,615		-10.6	
868 MEDICAL AND OTHER HEALTH LAB.....	19,425		17,000		17,405		-10.4	2.4
869 HEALTH AND SOCIAL SERV ASSOCIA.....	19,285		24,000		16,970		-12.0	-29.3
MAJOR GROUP 86 HEALTH AND SOCIAL SERV.....	957,275		1,120,000		1,119,145		16.9	-0.1
DIVISION P: HEALTH AND SOCIAL.....	957,275		1,120,000		1,119,150		16.9	-0.1
911 HOTELS, MOTELS AND TOURIST COURTS.....	208,265		191,000		207,160		-0.5	8.5
912 LODGING HOUSES AND RESIDENTIAL CL.....	3,910				4,395		12.4	
913 CAMPING GROUNDS AND TRAVEL TRAILERS.....	7,845		10,000		8,180		4.3	-18.2
914 RECREATION AND VACATION CAMPS.....	13,125		16,000		13,400		2.1	-16.2
MAJOR GROUP 91 ACCOMMODATION SERV INDS.....	233,140		221,000		244,980		5.1	10.9
921 FOOD SERVICES.....	505,905		659,000		607,780		20.1	-7.8
922 TAVERNS, BARS AND NIGHT CLUBS.....	29,605		45,000		39,530		33.5	-12.2
MAJOR GROUP 92 FOOD AND BEVERAGE SERV.....	535,510		704,000		679,620		26.9	-3.5
DIVISION Q: ACCOMMODATION, FOOD ETC.....	768,650		925,000		924,600		20.3	-0.0
961 MOTION PICT AUDIO AND VIDEO PROD.....	9,200		14,000		18,435		100.4	31.7
962 MOTION PICTURE EXHIBITION.....	13,075		12,000		10,460		-20.0	-12.8
963 THEAT AND OTH STAGED ENTERT SERV.....	21,360		35,000		28,485		33.4	-18.6
964 COMMERCIAL SPECTATOR SPORTS.....	6,905		12,000		12,060		74.7	0.5
965 SPORTS AND RECREATION CLUBS AND SERV.....	45,105		60,000		57,940		28.5	-3.4
966 GAMBLING OPERATIONS.....	3,240		13,000		8,110		150.3	-37.6
969 OTHER AMUSEMENT AND RECREATIONAL.....	57,980		72,000		41,435		-28.5	-42.5
MAJOR GROUP 96 AMUSEMENT AND REC SERV.....	156,870		218,000		185,885		18.5	-14.7

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NOTE : LFS FIGURES ROUNDED TO 1,000 AND SUPPRESSED LT 4,000

INDUSTRY	81 CENSUS		86 CENSUS		% CHNG	
	TOTAL	LF SURVEY	TOTAL	LF SURVEY	86-81	86-LFS
971 BARBER AND BEAUTY SHOPS.....	70,465	99,000	91,775	99,000	30.2	-7.3
972 LAUNDRIES AND CLEANERS (EXC SELF).....	46,260	54,000	48,270	54,000	4.3	-10.6
973 FUNERAL SERVICES.....	8,955	14,000	10,510	14,000	17.4	-24.9
974 PRIVATE HOUSEHOLDS.....	58,390	271,000	86,205	271,000	47.6	-68.2
979 OTHER PERSONAL AND HOUSEHOLD SERV.....	2,760	36,000	58,700	36,000	2026.8	63.1
MAJOR GROUP 97 PERSONAL AND HSLD SERV.....	186,825	474,000	309,495	474,000	65.7	-34.7
981 RELIGIOUS ORGANIZATIONS.....	64,335	83,000	73,405	83,000	14.1	-11.6
982 BUSINESS ASSOCIATIONS.....	8,780	13,000	11,705	13,000	33.3	-10.0
983 PROFESSIONAL MEMBERSHIP ASSOCIATION.....	6,205	6,000	9,400	6,000	51.5	56.7
984 LABOUR ORGANIZATIONS.....	17,755	10,000	16,335	10,000	-8.0	63.3
985 POLITICAL ORGANIZATIONS.....	1,095	0	1,585	0	44.7	
986 CIVIC AND FRATERNAL ASSOCIATIONS.....	0	38,000	34,625	38,000		-8.9
MAJOR GROUP 98 MEMBERSHIP ORG INDS.....	98,170	152,000	157,440	152,000	60.4	3.6
991 MACH. AND EQUIP. RENTAL AND LEASING.....	17,920	23,000	23,970	23,000	33.8	-4.1
992 AUTO AND TRUCK RENT AND LEASING.....	11,005	13,000	13,040	13,000	18.5	0.3
993 PHOTOGRAPHERS.....	9,765	11,000	13,050	11,000	33.6	18.6
994 OTHER REPAIR SERVICES.....	31,610	35,000	31,465	35,000	-0.5	-10.1
995 SERVICE TO BUILDINGS AND DWELLING.....	72,790	122,000	88,385	122,000	21.4	-27.6
996 TRAVEL SERVICES.....	28,255	24,000	28,365	24,000	0.4	18.2
999 OTHER SERVICES, N.E.C.....	85,165	42,000	61,830	42,000	-27.4	47.2
MAJOR GROUP 99 OTHER SERVICE INDUSTRIES.....	256,325	271,000	271,350	271,000	5.8	0.1
DIVISION R: OTHER SERVICE INDUSTRIES.....	698,395	1,116,000	924,165	1,116,000	32.3	-17.2





**TABLE 4 TOTAL AND PERCENTAGE CHANGE OF 1981 AND 1986 CENSUS  
INDUSTRY COUNTS (1970 SIC) FOR ALL PERSONS WHO WORKED SINCE  
JANUARY 1ST OF THE PREVIOUS YEAR (1980 OR 1985), BY SEX  
FOR CANADA**

NOTE : INDUSTRIES 051 AND 052, 295 AND 295, AND 323 AND 325  
ARE COMBINED FOR 1981 AND 1986, 822 AND 828 ARE COMBINED IN  
CLASS 822 FOR 1986 ONLY

INDUSTRY	81 CENSUS		%	86 CENSUS		%	81 CENSUS		86 CENSUS		%
	TOTAL	MALE		TOTAL	MALE		CHNG	FEMALE	FEMALE	CHNG	
I504 WATER TRANSPORT.....	27,240	21,665	-20.5	23,210	18,070	-22.1	4,035	3,595	-10.9		
I505 SERV. INCID. TO WATER TRANSPORT.....	13,820	16,915	22.4	12,035	14,550	20.9	1,785	2,360	32.2		
I506 MOV. STR. USED GOODS UNCRATED.....	13,505	15,465	14.5	10,975	12,465	13.6	2,530	3,000	18.6		
I507 OTHER TRUCK TRANSPORT.....	152,310	161,495	6.0	134,040	140,680	5.0	18,270	20,805	13.9		
I508 BUS TRANSPORT INTERURBAN & RURAL.....	9,050	6,715	-25.8	7,065	5,305	-24.9	1,975	1,415	-28.4		
I509 URBAN TRANSIT SYSTEMS.....	35,200	39,920	13.4	32,045	35,045	9.4	3,155	4,885	54.8		
I512 TAXICAB OPERATIONS.....	32,040	33,425	4.3	27,225	28,810	5.8	4,820	4,610	-4.4		
I515 PIPELINE TRANSPORT.....	6,870	8,010	16.6	5,520	6,090	10.3	1,355	1,920	41.7		
I516 HIGHWAY & BRIDGE MAINTENANCE.....	33,220	45,710	37.6	31,450	42,400	34.8	1,770	3,310	87.0		
I517 MISC.SERV.INCIDENTAL TO TRANSPORT.....	32,570	43,190	32.6	13,955	17,430	24.9	18,615	25,760	38.4		
I519 OTHER TRANSPORTATION.....	30,270	38,770	28.1	18,450	22,925	24.3	11,825	15,840	34.0		
MG1-TRANSPORTATION.....	568,195	603,425	6.2	469,310	483,680	3.1	98,880	119,740	21.1		
I524 GRAIN ELEVATORS.....	11,085	5,910	-46.7	9,650	5,375	-44.3	1,435	535	-62.7		
I527 OTHER STORAGE & WAREHOUSING.....	12,690	11,510	-9.3	9,630	8,695	-9.7	3,055	2,815	-7.9		
MC 2-STORAGE.....	23,775	17,420	-26.7	19,285	14,070	-27.0	4,490	3,350	-25.4		
I543 RADIO & TV BROADCASTING.....	46,980	54,430	15.9	31,130	34,650	11.3	15,850	19,785	24.8		
I544 TELEPHONE SYSTEMS.....	124,190	112,280	-9.6	61,870	58,940	-4.7	62,325	53,335	-14.4		
I545 TELEGRAPH & CABLE SYSTEMS.....	7,905	3,570	-54.8	5,830	2,660	-54.4	2,075	915	-55.9		
I548 POST OFFICE.....	84,815	82,615	-2.6	51,465	48,895	-5.0	33,345	33,710	1.1		
MG 3-COMMUNICATION.....	263,885	252,895	-4.2	150,290	145,145	-3.4	113,595	107,750	-5.1		
I572 ELECTRIC POWER.....	97,750	95,250	-2.6	79,700	76,395	-4.1	18,050	18,855	4.5		
I574 GAS DISTRIBUTION.....	15,020	16,435	9.4	11,040	11,585	4.9	3,980	4,850	21.9		
I576 WATER SYSTEMS.....	9,490	9,690	2.1	8,635	8,675	0.5	860	1,015	18.0		
I579 OTHER UTILITIES.....	13,920	18,055	29.7	12,700	16,165	27.3	1,220	1,895	55.3		
MG 4-ELECTRIC POWER GAS & WATER UTIL.....	136,180	139,430	2.4	112,075	112,815	0.7	24,105	26,615	10.4		
DIV 7-TRANSP.COMMUN.&OTHER UTIL.....	992,040	1,013,165	2.1	750,965	755,710	0.6	241,075	257,460	6.8		
I602 WHOLESALERS OF FARM PRODUCTS.....	10,225	14,675	43.5	6,600	9,425	42.8	3,630	5,250	44.6		
I606 WHOLESALERS OF COAL & COKE.....	575	710	23.5	505	595	17.8	75	120	60.0		
I608 WSALERS OF PETROLEUM PRODUCTS.....	34,040	27,340	-19.7	24,915	19,960	-19.9	9,125	7,580	-19.1		
I611 WSALERS OF PAPER & PAPER PRODUCT.....	11,980	15,090	26.0	7,485	8,820	17.8	4,490	6,275	39.8		
I612 WSALERS OF GENERAL MERCHANDISE.....	6,010	2,420	-59.7	3,810	1,390	-63.5	2,205	1,025	-53.5		
I614 WHOLESALERS OF FOOD.....	66,850	69,735	4.3	46,065	48,135	4.5	20,780	21,600	3.9		
I615 WHOLESALERS OF TOBACCO PRODUCTS.....	3,035	3,280	8.1	2,255	2,575	14.2	780	700	-10.3		
I616 WSALERS OF DRUGS & TOILET PREP.....	11,380	13,500	18.6	5,810	7,140	22.9	5,565	6,355	14.2		
I617 WSALERS OF APPAREL & DRY GOODS.....	20,405	19,190	-6.0	10,135	9,565	-5.6	10,270	9,620	-6.3		
I618 WSALERS OF HMLD FURN & FURNISH.....	10,845	11,110	2.4	6,995	6,895	-1.4	3,855	4,215	9.3		
I619 WSALERS OF MOTOR VEHICLES & ACCESS.....	45,945	61,235	33.3	35,605	46,630	31.0	10,340	14,605	41.2		
I621 WSALERS OF ELECT.MACH.EQ.&SUPPLIES.....	41,760	53,065	27.1	28,205	36,190	28.3	13,555	16,880	24.5		
I622 WSALERS OF FARM MACH. & EQUIPMENT.....	25,950	21,800	-16.0	21,185	17,865	-15.7	4,760	3,935	-17.3		
I623 WSALERS OF MACH & EQUIP N.E.S.....	105,440	105,325	-0.1	76,815	75,800	-1.3	28,620	29,530	3.2		
I624 WSALERS OF HRDWRE PLUM HEAT EQUIP.....	25,290	24,370	-3.6	17,935	17,325	-3.4	7,350	7,045	-4.1		
I625 WSALERS OF METAL AND METAL PROD N.E.S.....	13,150	13,505	2.7	10,260	10,600	3.3	2,890	2,900	0.3		
I626 WSALERS OF LUMBER & BLDG MATERIALS.....	69,040	61,395	-11.1	53,260	47,310	-11.2	15,780	14,085	-10.7		
I627 WSALERS OF SCRAP & WASTE MATERIALS.....	14,380	13,970	-2.9	12,365	11,625	-6.0	2,015	2,345	16.4		
I629 WHOLESALERS N.E.S.....	78,420	66,690	-15.0	48,165	41,695	-13.4	30,255	24,995	-17.4		
MG1-WHOLESALE TRADE.....	594,725	598,410	0.6	418,380	419,545	0.3	176,350	178,865	1.4		
I631 FOOD STORES.....	301,585	353,255	17.1	146,375	166,510	13.8	155,210	186,745	20.3		
I642 GENERAL MERCHANDISE STORES.....	331,945	293,155	-11.7	92,385	79,695	-13.7	239,560	213,460	-10.9		
I652 TIRE BATTERY & ACCESSORIES STORES.....	44,555	32,770	-26.5	30,420	23,675	-22.2	14,130	9,090	-35.7		
I654 GASOLINE SERVICE STATIONS.....	95,055	94,750	-0.3	70,935	69,585	-1.9	24,120	25,170	4.4		
I656 MOTOR VEHICLE DEALERS.....	102,160	108,320	6.0	84,115	88,630	5.4	18,050	19,690	9.1		
I658 MOTOR VEHICLE REPAIR SHOPS.....	102,985	116,300	12.9	91,750	102,210	11.4	11,235	14,090	25.4		
I663 SHOE STORES.....	22,475	25,580	13.8	9,585	10,370	8.2	12,890	15,205	18.0		
I665 MEN'S CLOTHING STORES.....	23,230	23,020	-0.9	12,535	12,335	-1.6	10,700	10,685	-0.1		
I667 WOMEN'S CLOTHING STORES.....	55,130	64,405	16.8	5,450	6,120	12.3	49,685	58,285	17.3		
I669 CLOTHING AND DRY GOODS STORES N.E.S.....	44,620	53,905	20.8	8,945	9,375	4.8	35,675	44,530	24.8		
I673 HARDWARE STORES.....	34,080	40,600	19.1	20,565	24,245	17.9	13,515	16,355	21.0		
I676 HMLD.FURNITURE & APPLIANCE STORES.....	73,115	90,095	23.2	44,320	54,125	22.1	28,795	35,970	24.9		
I678 RADIO TV & ELECT.APPL.REPAIR SHOPS.....	11,405	15,230	33.5	9,455	12,295	30.0	1,945	2,935	50.9		
I681 DRUG STORES.....	62,010	76,010	22.6	16,965	20,670	21.8	45,040	55,340	22.9		
I691 BOOK & STATIONERY STORES.....	18,025	21,680	20.3	5,795	6,140	6.0	12,235	15,540	27.0		
I692 FLORISTS' SHOPS.....	16,955	20,060	18.3	4,155	4,650	11.9	12,795	15,410	20.4		
I694 JEWELLERY STORES.....	24,215	25,075	3.6	7,060	7,380	4.5	17,160	17,695	3.1		
I695 WATCH & JEWELLERY REPAIR SHOPS.....	2,135	2,905	36.1	1,495	1,820	21.7	640	1,085	69.5		
I696 LIQUOR WINE & BEER STORES.....	20,715	22,765	9.9	15,780	15,695	-0.5	4,940	7,065	43.0		
I697 TOBACCONISTS.....	5,830	5,140	-11.8	1,750	1,560	-10.9	4,075	3,575	-12.3		
I699 RETAIL STORES N.E.S.....	154,905	179,355	15.8	72,160	86,785	20.3	82,750	92,575	11.9		
MG 2-RETAIL TRADE.....	1,547,145	1,664,370	7.6	752,005	803,860	6.9	795,140	860,505	8.2		
DIV 8-TRADE.....	2,141,870	2,262,780	5.6	1,170,385	1,223,405	4.5	971,490	1,039,375	7.0		
I701 BANK & OTH.DEPOSIT ACCEPTING ESTAB.....	273,840	279,355	2.0	65,160	66,605	2.2	208,680	212,745	1.9		
I703 OTHER CREDIT AGENCIES.....	21,065	14,935	-29.1	9,530	6,525	-31.5	11,535	8,410	-27.1		
I705 SECURITY BROKERS/DEALERS (INC.EXC).....	23,385	28,770	23.0	13,130	16,515	25.8	10,255	12,255	19.5		
I707 INVESTMENT & HOLDING COMPANIES.....	23,090	25,035	8.4	11,520	12,495	8.5	11,570	12,540	8.4		
MG1-FINANCE INDUSTRIES.....	341,380	348,090	2.0	99,335	102,140	2.8	242,045	245,955	1.6		
I721 INSURANCE CARRIERS.....	108,080	119,160	10.3	43,045	49,340	14.6	65,035	69,825	7.4		
MG 2-INSURANCE CARRIERS.....	108,085	119,160	10.2	43,045	49,340	14.6	65,040	69,820	7.3		
I735 INSURANCE & REAL ESTATE AGENCIES.....	124,485	154,445	24.1	59,650	74,555	25.0	64,840	79,895	23.2		
I737 REAL ESTATE OPERATORS.....	93,925	87,235	-7.1	51,730	48,175	-6.9	42,200	39,055	-7.5		
MG 3-INSURANCE AGENCIES&REAL EST.IND.....	218,410	241,680	10.7	111,375	122,725	10.2	107,035	118,950	11.1		
DIV 9-FINANCE INSURANCE & REAL ESTATE.....	667,880	708,935	6.1	253,760	274,205	8.1	414,120	434,730	5.0		
I801 KINDERGARTENS & NURSERY SCHOOLS.....	9,130	7,515	-17.7	440	220	-50.0	8,685	7,290	-16.1		
I802 ELEMENTARY & SECONDARY SCHOOLS.....	562,340	575,180	2.3	214,305	212,305	-0.9	348,030	362,880	4.3		
I803 SCHOOLS OF ART & OF THE PERFORM ARTS.....	13,050	11,005	-15.7	3,285	2,585	-21.3	9,765	8,420	-13.8		
I804 VOC CENTERS TRADE SCHOOL & BUS CO.....	10,625	9,210	-13.3	4,845	3,705	-23.5	5,780	5,510	-4.7		
I805 POST-SECONDARY NON-UNIV EDUC INST.....	56,265	72,405	28.7	28,235	36,100	27.9	28,025	36,305	29.5		
I806 UNIVERSITIES & COLLEGES.....	153,175	165,130	7.8	79,880	86,755	8.6	73,295	78,365	6.9		
I807 LIBRARIESMUSEUMS & OTHER REPOSITOR.....	30,290	36,915	21.9	7,935	9,990	25.9	22,355	26,920	20.4		

TABLE 4 TOTAL AND PERCENTAGE CHANGE OF 1981 AND 1986 CENSUS  
INDUSTRY COUNTS (1970 SIC) FOR ALL PERSONS WHO WORKED SINCE  
JANUARY 1ST OF THE PREVIOUS YEAR (1980 OR 1985), BY SEX  
FOR CANADA

NOTE : INDUSTRIES 051 AND 052, 295 AND 295, AND 323 AND 325  
ARE COMBINED FOR 1981 AND 1986, 822 AND 828 ARE COMBINED IN  
CLASS 822 FOR 1986 ONLY

INDUSTRY	81 CENSUS			86 CENSUS			81 CENSUS			86 CENSUS		
	TOTAL	TOTAL	CHNG	MALE	MALE	CHNG	FEMALE	FEMALE	CHNG			
I809 EDUCATION & RELATED SERVICES N.E.S....	4,100	6,850	67.1	1,485	2,140	44.1	2,615	4,715	80.3			
MG1-EDUCATION & REL.SERVICES.....	838,965	884,215	5.4	340,420	353,805	3.9	498,550	530,410	6.4			
I821 HOSPITALS.....	515,180	527,660	2.4	105,395	105,495	0.1	409,785	422,170	3.0			
I822 & I828 (1986 ONLY).....	71,270	319,055	347.7	7,370	56,480	666.4	63,895	262,570	310.9			
I823 OFFICES OF PHYSICIANS & SURGEONS.....	73,900	85,500	15.7	25,335	27,805	9.7	48,565	57,700	18.8			
I824 OFF PARA-MED PERSONNEL.....	18,040	30,515	69.2	5,455	7,215	32.3	12,585	23,300	85.1			
I825 OFFICES OF DENTISTS.....	37,950	47,475	25.1	10,430	11,200	7.4	27,520	36,280	31.8			
I826 DIAGNOSTIC & THERAPEUTIC SERV N.E.S....	19,105	48,065	151.6	3,595	9,460	163.1	15,505	38,605	149.0			
I827 MISCELLANEOUS HEALTH SERVICES.....	13,810	8,215	-40.5	2,575	2,205	-14.4	11,240	6,005	-46.6			
I828 WELFARE ORGANIZATIONS.....	182,510			40,605			141,900					
MG 2-HEALTH & WELFARE SERVICES.....	931,765	1,066,485	14.5	200,765	219,850	9.5	731,000	846,630	15.8			
I831 RELIGIOUS ORGANIZATIONS.....	67,645	73,840	9.2	34,110	37,305	9.4	33,530	36,540	9.0			
MG 3-RELIGIOUS ORGANIZATIONS.....	67,640	73,840	9.2	34,110	37,300	9.4	33,530	36,535	9.0			
I841 MOTION PICTURE THEATRES.....	13,155	10,535	-19.9	6,065	4,840	-20.2	7,085	5,695	-19.6			
I842 MOTION PICTURE PROD. & DISTRIBUTION....	9,220	18,510	100.8	5,080	10,560	107.9	4,140	7,950	92.0			
I843 BOWLING ALLEYS & BILLIARD PARLOURS....	7,020	6,980	-0.6	3,830	3,690	-3.7	3,190	3,290	3.1			
I844 GOLF CLUBS & COUNTRY CLUBS.....	17,975	25,315	40.8	10,800	15,600	44.4	7,170	9,710	35.4			
I845 THEATRICAL & OTH ST. ENT.....	21,180	28,530	34.7	13,820	17,255	24.9	7,355	11,275	53.3			
I849 MISC.AMUSEMENT & RECREATIONAL SERV....	91,770	91,095	-0.7	47,685	46,640	-2.2	44,085	44,450	0.8			
MG 4-AMUSEMENT & RECREATION SERV.....	160,320	180,955	12.9	87,290	98,585	12.9	73,030	82,370	12.8			
I851 EMPL.AGENCIES & PERSONNEL SUPPLIERS...	30,820	44,420	44.1	8,685	16,130	85.7	22,140	28,290	27.8			
I853 COMPUTER SERVICES.....	33,060	63,865	93.2	20,380	39,480	93.7	12,680	24,380	92.3			
I855 SECURITY & INVESTIGATION SERVICES.....	40,675	43,335	6.5	33,790	35,190	4.1	6,885	8,150	18.4			
I861 OFFICES OF ACCOUNTANTS.....	63,685	74,335	16.7	33,020	35,675	8.0	30,670	38,660	26.1			
I862 ADVERTISING SERVICES.....	28,210	42,870	52.0	14,130	21,085	49.2	14,080	21,785	54.7			
I863 OFFICES OF ARCHITECTS.....	13,465	16,685	23.9	9,860	11,745	19.1	3,600	4,945	37.4			
I864 ENGINEERING & SCIENTIFIC SERVICES.....	112,010	116,970	4.4	84,405	88,965	5.4	27,605	28,005	1.4			
I866 OFFICES OF LAWYERS & NOTARIES.....	78,965	94,595	19.8	29,320	33,300	13.6	49,645	61,290	23.5			
I867 OFFICES OF MANAGEMENT & BUS CONSULT..	28,435	40,045	40.8	15,525	21,670	39.6	12,905	18,380	42.4			
I869 MISC.SERVICES TO BUSINESS MANAGEMENT..	93,615	106,810	14.1	41,185	49,495	20.2	52,430	57,315	9.3			
MG 5-SERVICES TO BUSINESS MANAGEMENT.....	522,945	643,925	23.1	290,295	352,730	21.5	232,645	291,195	25.2			
I871 SHOE REPAIR SHOPS.....	2,775	3,815	37.5	2,220	2,870	29.3	555	945	70.3			
I872 BARBER & BEAUTY SHOPS.....	70,595	91,985	30.3	17,220	17,610	2.3	53,375	74,375	39.3			
I873 PRIVATE HOUSEHOLDS.....	58,830	86,810	47.6	5,630	10,855	92.8	53,200	75,960	42.8			
I874 LAUND.CLEANER&PRESSER(EXC.SELF-SERV)..	43,170	45,720	5.9	15,350	17,205	12.1	27,820	28,515	2.5			
I876 SELF-SERV LAUNDRIES & DRY CLEANERS....	3,210	2,695	-16.0	1,130	1,025	-9.3	2,075	1,670	-19.5			
I877 FUNERAL SERVICES.....	8,970	10,520	17.3	6,630	7,310	10.3	2,345	3,215	37.1			
I879 MISCELLANEOUS PERSONAL SERVICES.....	22,715	55,350	143.7	5,080	6,500	28.0	17,635	48,850	177.0			
MG 6-PERSONAL SERVICES.....	210,260	296,895	41.2	53,255	63,365	19.0	157,010	233,530	48.7			
I881 HOTELS & MOTELS.....	210,420	209,835	-0.3	74,280	76,805	3.4	136,140	133,035	-2.3			
I883 LODGING HOUSES & RESIDENTIAL CLUBS....	3,995	4,515	13.0	1,275	1,500	17.6	2,720	3,010	10.7			
I884 CAMPING GROUNDS & TRAILER PARKS.....	16,050	22,205	38.3	8,265	12,115	46.6	7,785	10,090	29.6			
I886 RESTAURANTS CATERERS & TAVERNS.....	548,405	649,500	18.4	202,860	255,030	25.7	345,545	394,470	14.2			
MG 7-ACCOMMODATION & FOOD SERV.....	778,870	886,050	13.8	286,685	345,445	20.5	492,185	540,605	9.8			
I891 LABOUR ORGANIZATIONS & TRADE ASSOC....	30,765	37,120	20.7	15,125	16,705	10.4	15,640	20,410	30.5			
I893 PHOTOGRAPHIC SERVICES N.E.S.....	20,085	20,995	4.5	9,660	10,685	10.6	10,425	10,310	-1.1			
I894 AUTOMOBILE & TRUCK RENTAL.....	11,065	13,080	18.2	7,295	8,745	19.9	3,770	4,330	14.9			
I895 MACHINERY & EQUIPMENT RENTAL.....	15,415	25,560	65.8	11,450	16,100	40.6	3,965	9,460	138.6			
I896 BLACKSMITHING & WELDING SHOPS.....	18,870	19,875	5.3	16,775	17,595	4.9	2,100	2,285	8.8			
I897 MISCELLANEOUS REPAIR SHOPS.....	17,305	13,870	-19.6	13,720	10,990	-19.9	3,580	2,885	-19.4			
I898 SERVICES TO BUILDINGS & DWELLINGS....	68,485	78,305	14.3	36,275	41,980	15.7	32,205	36,325	12.8			
I899 MISCELLANEOUS SERVICES N.E.S.....	100,525	104,330	3.8	43,985	46,175	5.0	56,540	58,155	2.9			
MG 8-MISCELLANEOUS SERVICES.....	282,515	313,140	10.8	154,285	168,970	9.5	128,225	144,170	12.4			
DIV10-COMMUNITY BUS.&PERS.SER.IND.....	3,793,280	4,345,510	14.6	1,447,100	1,640,060	13.3	2,346,175	2,705,450	15.3			
I902 DEFENCE SERVICES.....	129,750	146,245	12.7	104,205	115,615	10.9	25,545	30,630	19.9			
I909 OTHER FEDERAL ADMINISTRATION.....	280,430	280,615	0.1	146,965	144,080	-2.0	133,460	136,535	2.3			
MG1-FEDERAL ADMINISTRATION.....	410,180	426,860	4.1	251,175	259,700	3.4	159,005	167,165	5.1			
I931 PROVINCIAL ADMINISTRATION.....	284,700	305,885	7.4	152,290	156,675	2.9	132,405	149,205	12.7			
MG 2-PROVINCIAL ADMINISTRATION.....	284,700	305,885	7.4	152,295	156,680	2.9	132,405	149,205	12.7			
I951 LOCAL ADMINISTRATION.....	262,255	288,085	9.8	185,825	187,050	0.7	76,425	101,035	32.2			
MG 3-LOCAL ADMINISTRATION.....	262,255	288,080	9.8	185,830	187,050	0.7	76,425	101,030	32.2			
I991 OTHER GOVERNMENT OFFICES.....	2,165	1,800	-16.9	905	760	-16.0	1,255	1,035	-17.5			
MG 4-OTHER GOVT OFFICES.....	2,165	1,795	-17.1	905	760	-16.0	1,255	1,035	-17.5			
DIV11-PUBLIC ADMIN.&DEFENCE.....	959,290	1,022,625	6.6	590,200	604,185	2.4	369,095	418,435	13.4			
INDUSTRY UNSPECIFIED OR UNDEFINED.....	493,835	521,875	5.7	269,670	277,070	2.7	224,165	244,805	9.2			

**APPENDIX B**

**1970 STANDARD INDUSTRIAL CLASSIFICATION (SIC) DETAILED LEGEND**





**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**DIVISION 1 (001-021) - AGRICULTURE**

**Major Group 1/2 (001-019) Farms**  
001-019 Farms

**Major Group 3 (021) Services incidental to agriculture**  
021 Services incidental to agriculture

**DIVISION 2 (031-039) - FORESTRY**

**Major Group 1 (031) Logging**  
031 Logging

**Major Group 2 (039) Forestry services**  
039 Forestry services

**DIVISION 3 (041-047) - FISHING AND TRAPPING**

**Major Group 1 (041) Fishing**  
041 Fishing

**Major Group 2 (045) Fishery services**  
045 Fishery services

**Major Group 3 (047) Hunting and trapping**  
047 Hunting and trapping

**DIVISION 4 (051-099) - MINES (INCLUDING MILLING), QUARRIES AND OIL WELLS**

**Major Group 1 (051-059) Metal mines**  
051 Placer gold mines  
052 Gold quartz mines  
057 Uranium mines  
058 Iron mines  
059 Miscellaneous metal mines

**Major Group 2 (061-064) Mineral fuels**  
061 Coal mines  
064 Crude petroleum and natural gas industry

**Major Group 3 (071-079) Non-metal mines (except coal mines)**  
071 Asbestos mines  
072 Peat extraction  
073 Gypsum mines  
079 Miscellaneous non-metal mines

**Major Group 4 (083-087) Quarries and sand pits**

083 Stone quarries  
087 Sand pits or quarries

**Major Group 5 (096-099) Services incidental to mining**

096 Contract drilling for petroleum  
098 Other contract drilling  
099 Miscellaneous services incidental to mining

**DIVISION 5 (101-399) - MANUFACTURING INDUSTRIES**

**Major Group 1 (101-109) Food and beverage industries**

101 Meat and poultry products industries  
102 Fish products industry  
103 Fruit and vegetable processing industries  
104 Dairy products industry  
105 Flour and breakfast cereal products industry  
106 Feed industry  
107 Bakery products industries  
108 Miscellaneous food industries  
109 Beverage industries

**Major Group 2 (151-153) Tobacco products industries**

151 Leaf tobacco processors  
153 Tobacco products manufacturers

**Major Group 3 (162-165) Rubber and plastics products industries**

162 Rubber products industries  
165 Plastics fabricating industry, n.e.s.

**Major Group 4 (172-179) Leather industries**

172 Leather tanneries  
174 Shoe factories  
175 Leather glove factories  
179 Luggage, handbag and small leather goods manufacturers

**Major Group 5 (181-189) Textile industries**

181 Cotton yarn and cloth mills  
182 Wool yarn and cloth mills  
183 Man-made fibre, yarn and cloth mills  
184 Cordage and twine industry

**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**Major Group 5(181-189) Textile industries -  
Concluded**

- 185 Felt and fibre processing mills
- 186 Carpet, mat and rug industry
- 187 Canvas products, and cotton and jute bags industries
- 188 Automobile fabric accessories industry
- 189 Miscellaneous textile industries

**Major Group 6 (231-239) Knitting mills**

- 231 Hosiery mills
- 239 Knitting mills (except hosiery mills)

**Major Group 7 (243-249) Clothing industries**

- 243 Men's clothing industries
- 244 Women's clothing industries
- 245 Children's clothing industry
- 246 Fur goods industry
- 248 Foundation garment industry
- 249 Miscellaneous clothing industries

**Major Group 8 (251-259) Wood industries**

- 251 Sawmills, planing mills and shingle mills
- 252 Veneer and plywood mills
- 254 Sash, door and other millwork plants
- 256 Wooden box factories
- 258 Coffin and casket industry
- 259 Miscellaneous wood industries

**Major Group 9 (261-268) Furniture and fixture industries**

- 261 Household furniture manufacturers
- 264 Office furniture manufacturers
- 266 Miscellaneous furniture and fixtures manufacturers
- 268 Electric lamp and shade manufacturers

**Major Group 10 (271-274) Paper and allied industries**

- 271 Pulp and paper mills
- 272 Asphalt roofing manufacturers
- 273 Paper box and bag manufacturers
- 274 Miscellaneous paper converters

**Major Group 11 (286-289) Printing, publishing and allied industries**

- 286 Commercial printing
- 287 Platemaking, typesetting and trade bindery industry

- 288 Publishing only
- 289 Publishing and printing

**Major Group 12 (291-298) Primary metal industries**

- 291 Iron and steel mills
- 292 Steel pipe and tube mills
- 294 Iron foundries
- 295 Smelting and refining
- 296 Aluminum rolling, casting and extruding
- 297 Copper and copper alloy rolling, casting and extruding
- 298 Metal rolling, casting and extruding n.e.s.

**Major Group 13 (301-309) Metal fabricating industries (except machinery and transportation equipment industries)**

- 301 Boiler and plate works
- 302 Fabricated structural metal industry
- 303 Ornamental and architectural metal industry
- 304 Metal stamping, pressing and coating industry
- 305 Wire and wire products manufacturers
- 306 Hardware, tool and cutlery manufacturers
- 307 Heating equipment manufacturers
- 308 Machine shops
- 309 Miscellaneous metal fabricating industries

**Major Group 14 (311-318) Machinery industries (except electrical machinery)**

- 311 Agricultural implement industry
- 315 Miscellaneous machinery and equipment manufacturers
- 316 Commercial refrigeration and air conditioning equipment manufacturers
- 318 Office and store machinery manufacturers

**Major Group 15 (321-329) Transportation equipment industries**

- 321 Aircraft and aircraft parts manufacturers
- 323 Motor vehicle manufacturers
- 324 Truck body and trailer manufacturers
- 325 Motor vehicle parts and accessories manufacturers

**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**Major Group 15 (321-329) Transportation equipment industries - Concluded**

- 326 Railroad rolling stock industry
- 327 Shipbuilding and repair
- 328 Boatbuilding and repair
- 329 Miscellaneous vehicle manufacturers

**Major Group 16 (331-339) Electrical products industries**

- 331 Manufacturers of small electrical appliances
- 332 Manufacturers of major appliances (electric and non-electric)
- 333 Manufacturers of lighting fixtures
- 334 Manufacturers of household radio and television receivers
- 335 Communications equipment manufacturers
- 336 Manufacturers of electrical industrial equipment
- 338 Manufacturers of electric wire and cable
- 339 Manufacturers of miscellaneous electrical products

**Major Group 17 (351-359) Non-metallic mineral products industries**

- 351 Clay products manufacturers
- 352 Cement manufacturers
- 353 Stone products manufacturers
- 354 Concrete products manufacturers
- 355 Ready-mix concrete manufacturers
- 356 Glass and glass products manufacturers
- 357 Abrasives manufacturers
- 358 Lime manufacturers
- 359 Miscellaneous non-metallic mineral products industries

**Major Group 18 (365-369) Petroleum and coal products industries**

- 365 Petroleum refineries
- 369 Miscellaneous petroleum and coal products industries

**Major Group 19 (372-379) Chemical and chemical products industries**

- 372 Manufacturers of mixed fertilizers
- 373 Manufacturers of plastics and synthetic resins

- 374 Manufacturers of pharmaceuticals and medicines
- 375 Paint and varnish manufacturers
- 376 Manufacturers of soap and cleaning compounds
- 377 Manufacturers of toilet preparations
- 378 Manufacturers of industrial chemicals
- 379 Miscellaneous chemical industries

**Major Group 20 (391-399) Miscellaneous manufacturing industries**

- 391 Scientific and professional equipment industries
- 392 Jewellery and silverware industry
- 393 Sporting goods and toy industries
- 397 Signs and displays industry
- 399 Miscellaneous manufacturing industries, n.e.s.

**DIVISION 6 (404-421) - CONSTRUCTION INDUSTRY**

**Major Group 1 (404-409) General contractors**

- 404 Building construction
- 406 Highway, bridge and street construction
- 409 Other construction

**Major Group 2 (421) Special-trade contractors**

- 421 Special-trade contractors

**DIVISION 7 (501-579) - TRANSPORTATION, COMMUNICATION AND OTHER UTILITIES**

**Major Group 1 (501-519) Transportation**

- 501 Air transport
- 502 Services incidental to air transport
- 503 Railway transport
- 504 Water transport
- 505 Services incidental to water transport
- 506 Moving and storage, used goods, uncrated
- 507 Other truck transport
- 508 Bus transport, interurban and rural
- 509 Urban transit systems

**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**Major Group 1 (501-519) Transportation - Concluded**

- 512 Taxicab operations
- 515 Pipeline transport
- 516 Highway and bridge maintenance
- 517 Miscellaneous services incidental to transport
- 519 Other transportation

**Major Group 2 (524-527) Storage**

- 524 Grain elevators
- 527 Other storage and warehousing

**Major Group 3 (543-548) Communication**

- 543 Radio and television broadcasting
- 544 Telephone systems
- 545 Telegraph and cable systems
- 548 Post Office

**Major Group 4 (572-579) Electric power, gas and water utilities**

- 572 Electric power
- 574 Gas distribution
- 576 Water systems
- 579 Other utilities

**DIVISION 8 (602-699) - TRADE**

**Major Group 1 (602-629) Wholesale trade**

- 602 Farm products
- 606 Coal and coke
- 608 Petroleum products
- 611 Paper and paper products
- 612 General merchandise
- 614 Food
- 615 Tobacco products
- 616 Drugs and toilet preparations
- 617 Apparel and dry goods
- 618 Household furniture and furnishings
- 619 Motor vehicles and accessories
- 621 Electrical machinery, equipment and supplies
- 622 Farm machinery and equipment
- 623 Machinery and equipment, n.e.s.
- 624 Hardware, plumbing and heating equipment
- 625 Metal and metal products, n.e.s.
- 626 Lumber and building materials
- 627 Scrap and waste materials
- 629 Wholesalers, n.e.s.

**Major Group 2 (631-699) Retail trade**

- 631 Food stores
- 642 General merchandise stores
- 652 Tire, battery and accessories stores
- 654 Gasoline service stations
- 656 Motor vehicle dealers
- 658 Motor vehicle repair shops
- 663 Shoe stores
- 665 Men's clothing stores
- 667 Women's clothing stores
- 669 Clothing and dry goods stores, n.e.s.
- 673 Hardware stores
- 676 Household furniture and appliance stores
- 678 Radio, television and electrical appliance repair shops
- 681 Drug stores
- 691 Book and stationery stores
- 692 Florists' shops
- 694 Jewellery stores
- 695 Watch and jewellery repair shops
- 696 Liquor, wine and beer stores
- 697 Tobacconists
- 699 Retail stores, n.e.s.

**DIVISION 9 (701-737) - FINANCE, INSURANCE AND REAL ESTATE**

**Major Group 1 (701-707) Finance industries**

- 701 Banks and other deposit accepting establishments
- 703 Other credit agencies
- 705 Security brokers and dealers (including exchanges)
- 707 Investment and holding companies

**Major Group 2 (721) Insurance carriers**

- 721 Insurance carriers

**Major Group 3 (735-737) Insurance agencies and real estate industry**

- 735 Insurance and real estate agencies
- 737 Real estate operators

**DIVISION 10 (801-899) - COMMUNITY, BUSINESS AND PERSONAL SERVICE INDUSTRIES**

**Major Group 1 (801-809) Education and related services**

- 801 Kindergartens and nursery schools

**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**Major Group 1 (801-809) Education and related services - Concluded**

- 802 Elementary and secondary schools
- 803 Schools of art and of the performing arts
- 804 Vocational centres, trade schools and business colleges
- 805 Post-secondary non-university educational institutions
- 806 Universities and colleges
- 807 Libraries, museums and other repositories
- 809 Education and related services, n.e.s.

**Major Group 2 (821-828) Health and welfare services**

- 821 Hospitals
- 822 Related health care institutions
- 823 Offices of physicians and surgeons
- 824 Offices of para-medical personnel (practitioners)
- 825 Offices of dentists
- 826 Diagnostic and therapeutic services, n.e.s.
- 827 Miscellaneous health services
- 828 Welfare organizations

**Major Group 3 (831) Religious organizations**

- 831 Religious organizations

**Major Group 4 (841-849) Amusement and recreation services**

- 841 Motion picture theatres
- 842 Motion picture production and distribution
- 843 Bowling alleys and billiard parlours
- 844 Golf clubs and country clubs
- 845 Theatrical and other staged entertainment services
- 849 Miscellaneous amusement and recreation services

**Major Group 5 (851-869) Services to business management**

- 851 Employment agencies and personnel suppliers
- 853 Computer services
- 855 Security and investigation services
- 861 Offices of accountants

- 862 Advertising services
- 863 Offices of architects
- 864 Engineering and scientific services
- 866 Offices of lawyers and notaries
- 867 Offices of management and business consultants
- 869 Miscellaneous services to business management

**Major Group 6 (871-879) Personal services**

- 871 Shoe repair shops
- 872 Barber and beauty shops
- 873 Private households
- 874 Laundries, cleaners and pressers (except self-service)
- 876 Self-service laundries and dry cleaners
- 877 Funeral services
- 879 Miscellaneous personal services

**Major Group 7 (881-886) Accommodation and food services**

- 881 Hotels and motels
- 883 Lodging houses and residential clubs
- 884 Camping grounds and trailer parks
- 886 Restaurants, caterers and taverns

**Major Group 8 (891-899) Miscellaneous services**

- 891 Labour organizations and trade associations
- 893 Photographic services, n.e.s.
- 894 Automobile and truck rental
- 895 Machinery and equipment rental
- 896 Blacksmithing and welding shops
- 897 Miscellaneous repair shops
- 898 Services to buildings and dwellings
- 899 Miscellaneous services, n.e.s.

**DIVISION 11 (902-991) - PUBLIC ADMINISTRATION AND DEFENCE**

**Major Group 1 (902-909) Federal administration**

- 902 Defence services
- 909 Other federal administration

**Major Group 2 (931) Provincial administration**

- 931 Provincial administration

**LIST OF DIVISIONS, MAJOR GROUPS AND CLASSES**

**Major Group 3 (951) Local administration**

951 Local administration

**Major Group 4 (991) Other government  
offices**

991 Other government offices

**DIVISION 12 - INDUSTRY UNSPECIFIED  
OR UNDEFINED**

n.e.s. = not elsewhere specified

**APPENDIX C**

**1980 STANDARD INDUSTRIAL CLASSIFICATION (SIC) DETAILED LEGEND**





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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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**DIVISION A - AGRICULTURAL AND  
RELATED SERVICE INDUSTRIES**

**Major Group 01 - Agricultural Industries**

011-017 Agricultural industries

**Major Group 02 - Service Industries  
Incidental to Agriculture**

021-023 Service industries incidental to  
agriculture

**DIVISION B - FISHING AND TRAPPING  
INDUSTRIES**

**Major Group 03 - Fishing and Trapping  
Industries**

031 Fishing industries  
032 Services incidental to fishing  
033 Trapping

**DIVISION C - LOGGING AND FORESTRY  
INDUSTRIES**

**Major Group 04 - Logging Industry**

041 Logging industry

**Major Group 05 - Forestry Services  
Industry**

051 Forestry services industry

**DIVISION D - MINING (INCLUDING  
MILLING), QUARRYING AND OIL WELL  
INDUSTRIES**

**Major Group 06 - Mining Industries**

061 Metal mines  
062 Non-metal mines (except coal)  
063 Coal mines

**Major Group 07 - Crude Petroleum  
and Natural Gas Industries**

071 Crude petroleum and natural gas  
industries

**Major Group 08 - Quarry and Sand Pit  
Industries**

081 Stone quarries  
082 Sand and gravel pits

**Major Group 09 - Service Industries  
Incidental to Mineral  
Extraction**

091 Service industries incidental to crude  
petroleum and natural gas  
092 Service industries incidental to  
mining

**DIVISION E - MANUFACTURING  
INDUSTRIES**

**Major Group 10 - Food Industries**

101 Meat and poultry products industries  
102 Fish products industry  
103 Fruit and vegetable industries  
104 Dairy products industries  
105 Flour, prepared cereal food and feed  
industries  
106 Vegetable oil mills (except corn oil)  
107 Bakery products industries  
108 Sugar and sugar confectionery  
industries  
109 Other food products industries

**Major Group 11 - Beverage Industries**

111 Soft drink industry  
112 Distillery products industry  
113 Brewery products industry  
114 Wine industry

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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**Major Group 12 - Tobacco Products**

	<b>Industries</b>
121	Leaf tobacco industry
122	Tobacco products industry

**Major Group 15 - Rubber Products Industries**

151	Tire and tube industry
152	Rubber hose and belting industry
159	Other rubber products industries

**Major Group 16 - Plastic Products Industries**

161	Foamed and expanded plastic products industry
162	Plastic pipe and pipe fittings industry
163	Plastic film and sheeting industry
169	Other plastic products industries

**Major Group 17 - Leather and Allied Products Industries**

171	Leather and allied products industries
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**Major Group 18 - Primary Textile Industries**

181	Man-made fibre and filament yarn industry
182	Spun yarn and woven cloth industries
183	Broad knitted fabric industry

**Major Group 19 - Textile Products Industries**

191	Natural fibres processing and felt products industry
192	Carpet, mat and rug industry
193	Canvas and related products industry
199	Other textile products industries

**Major Group 24 - Clothing Industries**

243	Men's and boys' clothing industries
244	Women's clothing industries
245	Children's clothing industry
249	Other clothing and apparel industries

**Major Group 25 - Wood Industries**

251	Sawmill, planing mill and shingle mill products industries
252	Veneer and plywood industries
254	Sash, door and other millwork industries
256	Wooden box and pallet industry
258	Coffin and casket industry
259	Other wood industries

**Major Group 26 - Furniture and Fixture Industries**

261	Household furniture industries
264	Office furniture industries
269	Other furniture and fixture industries

**Major Group 27 - Paper and Allied Products Industries**

271	Pulp and paper industries
272	Asphalt roofing industry
273	Paper box and bag industries
279	Other converted paper products industries

**Major Group 28 - Printing, Publishing and Allied Industries**

281	Commercial printing industries
282	Platemaking, typesetting and bindery industry
283	Publishing industries
284	Combined publishing and printing industries

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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**Major Group 29 - Primary Metal Industries**

291	Primary steel industries
292	Steel pipe and tube industry
294	Iron foundries
295	Non-ferrous metal smelting and refining industries
296	Aluminum rolling, casting and extruding industry
297	Copper and copper alloy rolling, casting and extruding industry
299	Other rolled, cast and extruded non-ferrous metal products industries

**Major Group 30 - Fabricated Metal Products Industries (Except Machinery and Transportation Equipment Industries)**

301	Power boiler and heat exchanger industry
302	Fabricated structural metal products industries
303	Ornamental and architectural metal products industries
304	Stamped, pressed and coated metal products industries
305	Wire and wire products industries
306	Hardware, tool and cutlery industries
307	Heating equipment industry
308	Machine shop industry
309	Other metal fabricating industries

**Major Group 31 - Machinery Industries (Except Electrical Machinery)**

311	Agricultural implement industry
312	Commercial refrigeration and air conditioning equipment industry
319	Other machinery and equipment industries

**Major Group 32 - Transportation Equipment Industries**

321	Aircraft and aircraft parts industry
323	Motor vehicle industry
324	Truck and bus body and trailer industries
325	Motor vehicle parts and accessories industries
326	Railroad rolling stock industry
327	Shipbuilding and repair industry
328	Boatbuilding and repair industry
329	Other transportation equipment industries

**Major Group 33 - Electrical and Electronic Products Industries**

331	Small electrical appliance industry
332	Major appliance industry (electric and non-electric)
333	Electric lighting industries
334	Record player, radio and television receiver industry
335	Communication and other electronic equipment industries
336	Office, store and business machine industries
337	Electrical industrial equipment industries
338	Communications and energy wire and cable industry
339	Other electrical products industries

**Major Group 35 - Non-Metallic Mineral Products Industries**

351	Clay products industries
352	Hydraulic cement industry
354	Concrete products industries
355	Ready-mix concrete industry
356	Glass and glass products industries
357	Abrasives industry
358	Lime industry
359	Other non-metallic mineral products industries

LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

<b>Major Group 36 - Refined Petroleum and Coal Products Industries</b>		<b>Major Group 41 - Industrial and Heavy (Engineering) Construction Industries</b>	
361	Refined petroleum products industries	411	Industrial construction (other than buildings)
369	Other petroleum and coal products industries	412	Highway and heavy construction
<b>Major Group 37 - Chemical and Chemical Products Industries</b>		<b>Major Group 42 - Trade Contracting Industries</b>	
371	Industrial chemicals industries, n.e.c.	421	Site work
372	Agricultural chemical industries	422	Structural and related work
373	Plastic and synthetic resin industry	423	Exterior close-in work
374	Pharmaceutical and medicine industry	424	Plumbing, heating and air conditioning, mechanical work
375	Paint and varnish industry	425	Mechanical specialty work
376	Soap and cleaning compounds industry	426	Electrical work
377	Toilet preparations industry	427	Interior and finishing work
379	Other chemical products industries	429	Other trade work
<b>Major Group 39 - Other Manufacturing Industries</b>		<b>Major Group 44 - Service Industries Incidental to Construction</b>	
391	Scientific and professional equipment industries	441	Project management, construction
392	Jewellery and precious metal industries	449	Other services incidental to construction
393	Sporting goods and toy industries	<b>DIVISION G - TRANSPORTATION AND STORAGE INDUSTRIES</b>	
397	Sign and display industry	<b>Major Group 45 - Transportation Industries</b>	
399	Other manufactured products industries	451	Air transport industries
<b>DIVISION F - CONSTRUCTION INDUSTRIES</b>		452	Service industries incidental to air transport
<b>Major Group 40 - Building, Developing and General Contracting Industries</b>		453	Railway transport and related service industries
401	Residential building and development	454	Water transport industries
402	Non-residential building and development	455	Service industries incidental to water transport
		456	Truck transport industries
		457	Public passenger transit systems industries

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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458	Other transportation industries	<b>DIVISION I - WHOLESALE TRADE INDUSTRIES</b>
459	Other service industries incidental to transportation	
<b>Major Group 46 - Pipeline Transport Industries</b>		<b>Major Group 50 - Farm Products Industries, Wholesale</b>
461	Pipeline transport industries	501 Farm products, wholesale
<b>Major Group 47 - Storage and Warehousing Industries</b>		<b>Major Group 51 - Petroleum Products Industries, Wholesale</b>
471	Grain elevator industry	511 Petroleum products, wholesale
479	Other storage and warehousing industries	
<b>DIVISION H - COMMUNICATION AND OTHER UTILITY INDUSTRIES</b>		<b>Major Group 52 - Food, Beverage, Drug and Tobacco Industries, Wholesale</b>
<b>Major Group 48 - Communication Industries</b>		521 Food, wholesale
481	Telecommunication broadcasting industries	522 Beverages, wholesale
482	Telecommunication carriers industry	523 Drugs and toilet preparations, wholesale
483	Other telecommunication industries	524 Tobacco products, wholesale
484	Postal and courier service industries	
<b>Major Group 49 - Other Utility Industries</b>		<b>Major Group 53 - Apparel and Dry Goods Industries, Wholesale</b>
491	Electric power systems industry	531 Apparel, wholesale
492	Gas distribution systems industry	532 Dry goods, wholesale
493	Water systems industry	
499	Other utility industries, n.e.c.	<b>Major Group 54 - Household Goods Industries, Wholesale</b>
		541 Electrical and electronic household appliances and parts, wholesale
		542 Household furniture, wholesale
		543 Household furnishings, wholesale

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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<b>Major Group 55 - Motor Vehicle, Parts and Accessories Industries, Wholesale</b>		595	Photographic equipment and musical instruments and supplies, wholesale
		596	Jewellery and watches, wholesale
		597	Industrial and household chemicals, wholesale
551	Motor vehicles, wholesale		
552	Motor vehicle parts and accessories, wholesale	598	General merchandise, wholesale
		599	Other products, n.e.c., wholesale
 <b>Major Group 56 - Metals, Hardware, Plumbing, Heating and Building Materials Industries, Wholesale</b>		 <b>DIVISION J - RETAIL TRADE INDUSTRIES</b>	
561	Metal and metal products, wholesale	<b>Major Group 60 - Food, Beverage and Drug Industries, Retail</b>	
562	Hardware and plumbing, heating and air conditioning equipment and supplies, wholesale	601	Food stores
563	Lumber and building materials, wholesale	602	Liquor, wine and beer stores
		603	Prescription drugs and patent medicine stores
 <b>Major Group 57 - Machinery, Equipment and Supplies Industries, Wholesale</b>		 <b>Major Group 61 - Shoe, Apparel, Fabric and Yarn Industries, Retail</b>	
571	Farm machinery, equipment and supplies, wholesale	611	Shoe stores
572	Construction, forestry and mining machinery, equipment and supplies, wholesale	612	Men's clothing stores
573	Industrial machinery, equipment and supplies, wholesale	613	Women's clothing stores
574	Electrical and electronic machinery, equipment and supplies, wholesale	614	Clothing stores, n.e.c.
579	Other machinery, equipment and supplies, wholesale	615	Fabric and yarn stores
 <b>Major Group 59 - Other Products Industries, Wholesale</b>		 <b>Major Group 62 - Household Furniture, Appliances and Furnishings Industries, Retail</b>	
591	Waste materials, wholesale	621	Household furniture stores
592	Paper and paper products, wholesale	622	Appliance, television, radio and stereo stores
593	Agricultural supplies, wholesale	623	Household furnishings stores
594	Toys, amusement and sporting goods, wholesale		

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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**Major Group 63 - Automotive  
Vehicles, Parts and Accessories  
Industries, Sales and Service**

- 631 Automobile dealers
- 632 Recreational vehicle dealers
- 633 Gasoline service stations
- 634 Automotive parts and accessories  
stores
- 635 Motor vehicle repair shops
- 639 Other motor vehicle services

**DIVISION K - FINANCE AND  
INSURANCE INDUSTRIES**

**Major Group 70 - Deposit Accepting  
Intermediary Industries**

- 701-709 Deposit accepting intermediary  
industries

**Major Group 64 - General Retail  
Merchandising Industries**

- 641 General merchandise stores

**Major Group 71 - Consumer and  
Business Financing  
Intermediary Industries**

- 711-712 Consumer and business  
financing intermediary  
industries

**Major Group 65 - Other Retail Store  
Industries**

- 651 Book and stationery stores
- 652 Florists, lawn and garden centres
- 653 Hardware, paint, glass and  
wallpaper stores
- 654 Sporting goods and bicycle shops
- 655 Musical instrument and record stores
- 656 Jewellery stores and watch and  
jewellery repair shops
- 657 Camera and photographic supply  
stores
- 658 Toy, hobby, novelty and souvenir  
stores
- 659 Other retail stores

**Major Group 72 - Investment  
Intermediary Industries**

- 721-729 Investment intermediary  
industries

**Major Group 73 - Insurance  
Industries**

- 731-733 Insurance industries

**Major Group 69 - Non-Store Retail  
Industries**

- 691 Vending machine operators
- 692 Direct sellers

**Major Group 74 - Other Financial  
Intermediary Industries**

- 741-749 Other financial intermediary  
industries

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LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

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**DIVISION L - REAL ESTATE OPERATOR  
AND INSURANCE AGENT INDUSTRIES**

**Major Group 75 - Real Estate  
Operator Industries (Except  
Developers)**

751 Operators of buildings and dwellings  
759 Other real estate operators

**Major Group 76 - Insurance and  
Real Estate Agent Industries**

761 Insurance and real estate agencies

**DIVISION M - BUSINESS SERVICE  
INDUSTRIES**

**Major Group 77 - Business Service  
Industries**

771 Employment agencies and personnel  
suppliers  
772 Computer and related services  
773 Accounting and bookkeeping services  
774 Advertising services  
775 Architectural, engineering and other  
scientific and technical services  
776 Offices of lawyers and notaries  
777 Management consulting services  
779 Other business services

**DIVISION N - GOVERNMENT SERVICE  
INDUSTRIES**

**Major Group 81 - Federal Government  
Service Industries**

811 Defence services  
812-817 Other federal government service  
industries

**Major Group 82 - Provincial and  
Territorial Government  
Service Industries**

822-827 Provincial and territorial  
government service industries

**Major Group 83 - Local Government  
Service Industries**

832-837 Local government service  
industries

**Major Group 84 - International and  
Other Extra-Territorial  
Government Service Industries**

841 International and other extra-  
territorial agencies

**DIVISION O - EDUCATIONAL SERVICE  
INDUSTRIES**

**Major Group 85 - Educational  
Service Industries**

851 Elementary and secondary education  
852 Post-secondary non-university  
education  
853 University education  
854 Library services  
855 Museums and archives  
859 Other educational services

**DIVISION P - HEALTH AND SOCIAL  
SERVICE INDUSTRIES**

**Major Group 86 - Health and Social  
Service Industries**

861 Hospitals  
862 Other institutional health and social  
services



LIST OF DIVISIONS, MAJOR GROUPS,  
AND GROUPS

863	Non-institutional health services		
864	Non-institutional social services		
865	Offices of physicians, surgeons and dentists; private practice	971	Barber and beauty shops
866	Offices of other health practitioners	972	Laundries and cleaners
867	Offices of social services practitioners	973	Funeral services
868	Medical and other health laboratories	974	Private households
869	Health and social service associations and agencies	979	Other personal and household services

**Major Group 97 - Personal and Household Service Industries**

**DIVISION Q - ACCOMMODATION, FOOD AND BEVERAGE SERVICE INDUSTRIES**

**Major Group 98 - Membership Organization Industries**

**Major Group 91 - Accommodation Service Industries**

911	Hotels, motels and tourist courts
912	Lodging houses and residential clubs
913	Camping grounds and travel trailer parks
914	Recreation and vacation camps

981	Religious organizations
982	Business associations
983	Professional membership associations
984	Labour organizations
985	Political organizations
986	Civic and fraternal organizations

**Major Group 92 - Food and Beverage Service Industries**

921	Food services
922	Taverns, bars and night clubs

**Major Group 99 - Other Service Industries**

991	Machinery and equipment rental and leasing services
992	Automobile and truck rental and leasing services
993	Photographers
994	Other repair services
995	Services to buildings and dwellings
996	Travel services
999	Other services, n.e.c.

**DIVISION R - OTHER SERVICE INDUSTRIES**

**Major Group 96 - Amusement and Recreational Service Industries**

961	Motion picture, audio and video production and distribution
962	Motion picture exhibition
963	Theatrical and other staged entertainment services
964	Commercial spectator sports
965	Sports and recreation clubs and services
966	Gambling operations
969	Other amusement and recreational services



**APPENDIX D**  
**OTHER INDUSTRY DATA PRODUCTS**



## OTHER INDUSTRY DATA PRODUCTS

There are several other products from the 1986 Census which contain industry data. These include:

### NATION SERIES

#### - Mobility Status and Interprovincial Migration (Catalogue No. 93-108)

This publication presents data on the mobility status of Canadian residents. The focus is on the demographic, educational and employment characteristics of interprovincial migrants 15 years and over. The components (in, out and net) of interprovincial migration are also shown. Included are counts of the labour force 15 years and over by industry divisions, for Canada, the provinces and the territories.

#### - Industry (Catalogue No. 93-113)

Industry data for members of the labour force 15 years and over by age, sex and selected labour characteristics are presented for Canada, the provinces and the territories. Data are based on the 1980 Standard Industrial Classification.

### DIMENSION SERIES

#### - Industry Trends, 1951-1986 (Catalogue No. 93-152)

This publication provides data on industry trends from 1951-1986 for the labour force 15 years and over by sex, for Canada, the provinces and the territories. All tables are based on the 1970 version of the Standard Industrial Classification (SIC). For purposes of comparability, the data processed for the 1951 and 1961 Censuses have been manually adjusted to the 1970 SIC by the use of conversion charts created by comparing classification manuals used in these census years. Data for 1971, 1981 and 1986 are processed based on the 1970 SIC and no post-census data adjustments were required.

#### - Census Metropolitan Areas (Catalogue No. 93-156)

This publication provides data covering a wide range of census variables for the 25 census metropolitan areas (large urban centres) in Canada. Included are counts of the labour force 15 years and over for 60 selected industries. Data are provided from both the 1981 and 1986 Censuses, including percentage change from 1981-1986. Data are based on the 1970 Standard Industrial Classification.

### PROFILE SERIES

This series includes industry data, as well as information on a wide range of other census variables. Data are presented for a variety of subprovincial areas: Census Divisions and Subdivisions (94-101 to 94-124), Federal Electoral Districts (94-125, 94-126, 94-133 and 94-134), Census Metropolitan Areas and Census Agglomerations (94-127 and 94-128), Census-tracted Centres (Census Tracts and Component Subdivisions) (95-101 to 95-174), Urban and Rural Areas (94-129 and 94-130) and Labour Force Survey Economic Regions (94-131). Data for profiles are also available in machine-readable form.

### FOCUS ON CANADA SERIES

#### Trends in Occupation and Industry (Catalogue No. 98-135)

This study presents an industry-occupation employment structure as revealed by the 1986 Census and includes trend analysis between 1971 and 1986. The study also examines changes in the distribution of the experienced labour force among occupations and industries between 1971 and 1986.

### BASIC SUMMARY TABLES

This series is designed to meet the needs of users who wish to study the characteristics of small areas. Tables provide information on a variety of census variables. The following industry tables are available:

LF86B05 Labour force 15 years and over by industry divisions (21) (based on the 1980 classification - "Unspecified or undefined" distributed among industry divisions) and sex (3)





